

Manpower study of Singapore-based accounting practices

Evolving jobs and skills in the
accounting practices sector





Preface

Ernst & Young (EY) was commissioned by the Singapore Accountancy Commission (SAC), in collaboration with Workforce Singapore (WSG) and SkillsFuture Singapore (SSG), to conduct a study to evaluate the impact of key trends on manpower in Singapore-based accounting practices.

The accounting practices sector has been undergoing changes arising from changing client expectations, digitalisation, regulations and the COVID-19 pandemic. These trends will have an impact on the accounting practices workforce in Singapore and the study aimed to assess the impact of these emerging technologies and megatrends. Anchoring on the Skills Framework for Accountancy, the study sought to understand which job roles will be impacted and how job tasks and skills will change. This was complemented by the manpower job impact analysis to understand future demand and supply for existing job roles in the sector. Lastly, strategic thrusts were identified for the sector where recommendations were put forth, to ensure that the workforce remains competitive and future-ready to adapt to a constantly evolving environment.

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Contents

Abbreviations	4	6.3 <u>Recommendation 2 – Drive job redesign adoption to maintain long-term competitiveness and agility</u>	100
A note on the methodology and findings	5	6.4 <u>Recommendation 3 – Embrace talent from a wide range of talent supply sources to meet the sector's manpower demand</u>	104
1. <u>Study overview</u>	6	6.5 <u>Recommendation 4 – Re-assess the current workforce's skills and create a roadmap for acquiring future skills, to build a future-ready workforce</u>	107
2. <u>Trends impacting the accounting practices sector</u>	17	6.6 <u>Recommendation 5 – Elevate the accounting practices sector's image and appeal to attract the best talent</u>	110
3. <u>Emerging job roles as an impact of trends</u>	25	7. <u>Methodology</u>	117
3.1 <u>Emergence of new job roles</u>	26	7.1 <u>Project objectives</u>	118
3.2 <u>Snapshot of emerging job roles</u>	29	7.2 <u>Defining the accounting practices sector in Singapore</u>	120
3.3 <u>Job dashboards and case studies for emerging roles</u>	31	7.3 <u>Overall approach and research techniques</u>	123
4. <u>Impact on jobs and skills</u>	38	7.4 <u>Key stakeholders engaged in the study</u>	126
4.1 <u>Key definitions</u>	39	8. <u>Appendix</u>	131
4.2 <u>Impact assessment</u>	41	I. <u>Job dashboards</u>	132
5. <u>Potential career pathways in the accounting practices sector</u>	72	II. <u>Self-Assessment Questionnaire (SAQ) for Organisations</u>	211
5.1 <u>Overview and rationale for highlighting potential career pathways in the sector</u>	73	III. <u>List of industry outreach participants</u>	220
5.2 <u>Summary of potential career pathways</u>	75	IV. <u>References and sources</u>	223
5.3 <u>Mobility dashboards</u>	77		
6. <u>Future of the accounting practices sector: Recommendations</u>	86		
6.1 <u>Overview of recommendations</u>	87		
6.2 <u>Recommendation 1 – Encourage adoption of emerging technologies to drive workforce productivity</u>	95		

Abbreviations

Abbreviation	Term	Abbreviation	Term
ACRA	Accounting and Corporate Regulatory Authority	IHL	Institute of Higher Learning
BCP	Business Continuity Plans	IIA Singapore	Institute of Internal Auditors Singapore
BV	Business Valuation	IPAS	Insolvency Practitioners Association of Singapore
CA	Chartered Accountant	IRAS	Inland Revenue Authority of Singapore
CAGR	Compound Annual Growth Rate	ISCA	Institute of Singapore Chartered Accountants
CCP	Career Conversion Programme	IT	Information Technology
CET	Continuing Education and Training	IVAS	Institute of Valuers and Appraisers, Singapore
CFO	Chief Financial Officer	M&A	Mergers and Acquisitions
CPA	Certified Practising Accountant	MA	Management Accounting
CS	Corporate Secretarial	MOE	Ministry of Education
CSIS	Chartered Secretaries Institute of Singapore	MOM	Ministry of Manpower
ESG	Environmental, Social and Governance	PET	Pre-Employment Training
ERM	Enterprise Risk Management	R&D	Research & Development
EY	Ernst & Young Singapore	R&I	Restructuring and Insolvency
FA	Financial Accounting	RA*	Risk Advisory
FF	Financial Forensics	SCAQ	Singapore Chartered Accountant Qualification
FGD	Focus Group Discussion	SCTP	Singapore Chartered Tax Professionals
FT	Functional Track	SFw	Skills Framework
IA	Internal Audit	SME	Subject Matter Expert
IFRS	International Financial Reporting Standards	SMP	Small and Medium-sized Practice
IHL	Institute of Higher Learning	WSG	Workforce Singapore

*Risk Advisory represents the Enterprise Risk Management functional track in SFw for Accountancy



A note on the methodology and findings

In this study, emerging technologies and megatrends are considered as the key drivers impacting jobs and skills in the accounting practices sector. While accounting practices that adopt the five technologies¹ and/or are affected by the four megatrends² may expect the impact of jobs and skills to be as outlined in this report, there are certain factors that may overstate or understate this impact assessment. This study, however, has been calibrated to provide a **sector-wide view** of technology trends, megatrends, and **impact on job roles and skills** by aggregating insights from multiple stakeholders with diverse profiles and perspectives. The findings need to be interpreted by individual accounting practices and contextualised to their business operations and job roles respectively. There are also other considerations that should be taken into account during the conduct of this study, as outlined below.

Firstly, this study acknowledges that the **journey and timeline to technology adoption may be affected by a number of factors.**

- Factors within the control of accounting practices include operating models, business priorities, legacy processes, system infrastructure etc. The extent and pace of technology adoption will vary across accounting practices depending on their technology strategies, size and scale of operations. Certain accounting practices may choose to move on par with or even beyond industry pace, some may choose to be fast followers, while others may adopt a wait-and-see approach
- Other factors beyond the control of accounting practices include, but are not limited to, clients' preferences, technology commercialisation, technical feasibility, availability of proof of concepts, regulatory requirements or other unforeseen circumstances

Secondly, this study also acknowledges **that the impact on jobs and skills experienced by existing practitioners may vary depending on a number of other factors.**

- Some accounting practices, especially small and medium-sized practices, may decide not to build or manage the technological solutions in-house. As such, the identified jobs and talent capabilities may initially be outsourced or hired on a contract-basis, thus minimising the impact on existing staff
- Depending on their people strategies, the potential outcomes for impacted jobs e.g. major job redesign, moderate job redesign or minimal job redesign, and thus the impact on skills may differ across accounting practices

1. Emerging technologies refer to Artificial Intelligence (AI) & Analytics, Intelligent Automation, Blockchain, Cybersecurity and Cloud Computing

2. Megatrends refer to "Changing Public/Client Expectations, Move towards Outsourcing & Offshoring, COVID-19 and Workforce Challenges"

1

Study overview



Study overview: Objectives & key trends impacting the sector

A BACKDROP OF THE ACCOUNTING PRACTICES SECTOR

The increased pace of digitalisation, societal shifts and changing expectations of the accounting practices sector, have changed the way work is performed in the sector. This has led many to be keen on understanding how technology will impact job tasks moving forward, how changing expectations will shape practitioners' roles, what the future holds for the sector and how manpower demands can be met.

With this backdrop, the study aims to seek answers around:

- What **impact emerging technologies** and other megatrends will bring to Singapore's accounting practices workforce in terms of job tasks and skills
- What **job implications** practitioners might face due to the impact
- What **projected manpower needs** will be based on the current demands and business sentiments
- What the **government, professional bodies and practitioners** can do to embrace changes, meet manpower demands and propel the sector forward

Key findings from a trends perspective

We have identified **9 emerging technologies and megatrends** impacting the accounting practices. These trends have an overall impact on the sector in **3 key ways**.



Technology trends have enabled practitioners to increase productivity

Increased productivity will allow practitioners to shift their focus to **complex and advisory tasks** such as performing analysis and interpreting insights. Technology tools such as **AI & Analytics and Intelligent Automation** will perform more **process-based tasks** such as data cleansing.



Trends have created opportunities for practitioners to upskill themselves

The increasing use of **technology** in workflows, impact by **COVID-19, workforce challenges, changing client/public expectations** and **outsourcing/offshoring trends** will require practitioners to **learn new skills**. Practitioners need to learn how to manage technology deliverables* and associated risks, effectively communicate with clients and manage remote teams.



Trends have enhanced sector appeal to talent

Accounting practices need to **enhance talent attraction and development efforts** to better attract and retain talent. Hence, it is important to showcase **how tasks are shifting to be more advisory in nature** as more technology is leveraged to meet changing public/client expectations. In addition, there needs to be greater **promotion of varied career pathways** to enhance sector appeal to talent.

* Job tasks that are more transactional in nature that can be supported by technology

Study overview: Key trends impacting the sector

Key findings: Of the 9 emerging technologies and megatrends, there are **4 key drivers** impacting the accounting practices sector.



Intelligent Automation

- Intelligent Automation will **automate transactional and repetitive job tasks** such as performing bank confirmations, casting of financial statements, digitally populating taxpayers' returns, performing formula-based computational work, extracting information and performing real-time reporting for clients
- This **shifts the nature of work performed**, from transactional and repetitive tasks **to advisory and complex tasks**, which results in **increased attractiveness** for talent to join the sector
- The need to manage and interpret deliverables from Intelligent Automation creates opportunities for practitioners to **learn new skills and remain relevant**, as they grapple with **evolving tasks**



Cloud Computing

- Cloud Computing **increases productivity** by streamlining information sharing and facilitating collaboration amongst teams. As remote working becomes the new normal in light of COVID-19, **virtual communication** between clients and teams becomes **increasingly important**
- It is imperative to ensure that processes are implemented to **safeguard information and mitigate potential risks**
- Therefore, practitioners are presented with opportunities to learn new skills such as **cloud integration and cybersecurity knowledge**, to manage Cloud Computing and its associated risks



Changing Public/ Client expectations

- Practitioners are expected to bring greater value to clients by providing **insights, driving process improvements** and **developing business solutions**
- Practitioners will also be required to **stay abreast of market changes** (for advisory functional tracks) and **new changes in the accounting standards and taxation rulings**. For example, there has been a recent demand for practitioners to play a more **pre-emptive role** in detecting potential issues especially in **Tax and Financial Forensics**



Workforce Challenges

- Workforce challenges are present across all functional tracks, especially so for **Assurance, Tax, Financial Accounting, and Corporate Secretarial**
- Public perception of the nature of work and lack of **visibility of varied career pathways** deter talent from joining/staying in the accounting practices sector
- In addition, due to lower birth rates and COVID-19 border closures affecting the inflow of foreign talent, **talent attraction and retention** have been identified to be among the key priorities for the sector to **meet the sector's manpower demands**. Hence, **uplifting sector appeal** is imperative to ensure a **continuous pipeline of talent**

Study overview: Impact of trends on jobs

An overview of the impact assessment on 38 job roles in the accounting practices workforce

By leveraging job roles from the SFw for Accountancy, we examined:

38 job roles in total, of which:

7 job roles will experience a **HIGH** degree of change in job tasks and require **major job redesign**

21 job roles will experience a **MEDIUM** degree of change in job tasks and require **moderate job redesign**

10 job roles will experience a **LOW** degree of change in job tasks and require **minimal job redesign**

Each of the 38 job roles is ascribed an impact level based on the degree of change in job tasks as a result of emerging technologies and megatrends

“HIGH” IMPACT ROLES

H →

- A **significant** proportion of job tasks will be **automated by technology**. Tasks will also be **highly impacted by megatrends**
- Job role will likely be enlarged, reconfigured or enriched, and **upskilling or reskilling** is required
- For example, AI & Analytics will assist **Tax Associates** to analyse large datasets and perform data sampling, estimation and extrapolation on **tax computations**. AI & Analytics will also assist **Audit Associates in flagging anomalous transactions** for practitioners to focus on investigations instead of manual checks, in a bid to **increase productivity**. **Upskilling in data analytics and AI application** skills is required

“MEDIUM” IMPACT ROLES

M →

- A **small** proportion of job tasks will be **augmented by technology**. Tasks will also be **moderately impacted by megatrends**
- Job role will transform to take on additional duties beyond what is expected, with **moderate upskilling or reskilling required**
- For example, a **Business Valuation Senior** will leverage **AI & Analytics** to **support the development of financial models** but practitioners will still need to review the preliminary outputs of the model, **including managing exceptions and assessing business risks** based on fluid scenarios in the model. As such, upskilling in **business acumen and critical thinking** is required

“LOW” IMPACT ROLES

L →

- Job tasks will **remain largely unchanged**
- Job role will continue to deliver outcomes, with **minimal upskilling or reskilling required**
- A substantial number of low impact roles are **highly strategic**, requiring a high level of human intervention. Technology will merely supplement job tasks for practitioners to focus on their core tasks
- Practitioners will **evaluate the suitability of adopting technology** tools in their businesses to **drive productivity**. For example, a **M&A Partner** could introduce the use of **Analytics** to complement the **generation of insights and enhance diligence discussions** with clients

Study overview: Potential career pathways for “High” impact job roles

An overview of the impact assessment on **38 job roles** in the accounting practices workforce

By leveraging job roles from the SFw for Accountancy, we examined:

38 job roles in total, of which:

7 job roles will experience a **HIGH** degree of change in job tasks and require **major job redesign**

21 job roles will experience a **MEDIUM** degree of change in job tasks and require **moderate job redesign**

10 job roles will experience a **LOW** degree of change in job tasks and require **minimal job redesign**

Potential career pathways have been identified for the **7 “high” impact job roles**

Rationale for identifying potential career pathways

- Potential career pathways have been identified for **“High” impact roles**, anchoring on **transferable skillsets and skills gaps**
- **89%** of the identified career pathways are within the accounting practices sector
- **Upskilling will be key** and the potential career pathways enable practitioners to tap on their **interests and transferrable skillsets** to **explore the wide variety of career options** available in the **accounting practices sector**
- The aim is to maximise **talent utilisation and retain talent within** the accounting practices sector

Summary of mobility opportunities for “High” Impact job roles



Audit Associate/Audit Assistant Associate

- Audit Senior
- Financial Forensics Associate/Executive
- Senior Internal Auditor/Internal Auditor



Tax Associate/Executive

- Audit Associate/Audit Assistant Associate
- Compliance Advisory Executive



Accounts Executive/Accounts Assistant

- Accountant/Senior Accounts Executive*
- Risk Advisory Associate/Executive**



Risk Advisory Associate/Executive**

- Risk Advisory Senior/Senior Executive**
- Senior Internal Auditor/Internal Auditor
- Financial Forensics Associate/Executive



Financial Forensics Associate/Executive

- Financial Forensics Senior/Senior Executive
- Senior Internal Auditor/Internal Auditor
- Operations Risk and Control Analyst



Corporate Secretarial Associate

- Corporate Secretarial Senior/Corporate Secretarial Senior Executive
- Accounts Executive/Accounts Assistant*



Senior Internal Auditor/Internal Auditor

- Internal Audit Assistant Manager
- Risk Advisory Associate/Executive**
- Accounts Executive/Accounts Assistant*

* Accounts Executive/Accounts Assistant and Accountant/Senior Accounts Executive refer to roles in accounting practices

** Risk Advisory refers to Enterprise Risk Management functional track in SFw for Accountancy

Study overview: Impact of trends on skills



ADDITIONAL SKILLS TO FOCUS ON

Technology and domain skills:

- Artificial Intelligence Application
- Behavioural Analysis and Predictive Screening
- Cloud Computing Application
- Data Analysis and Interpretation
- Design Thinking Practice
- Machine Learning
- Organisational Analysis
- Process Improvement
- Programming and Coding
- Report Writing
- Robotics and Automation Application

Soft skills:

- Adaptability
- Creative Thinking
- Customer Orientation
- Decision Making
- Digital Fluency
- Global Perspective
- Learning Agility
- Problem Solving
- Sense Making
- Learning Agility
- Problem Solving
- Sense Making
- Transdisciplinary Thinking



There is a pressing need to upskill in technology skills as job tasks evolve

- With **technology** such as AI & Analytics, Intelligent Automation, Cloud Computing and Cybersecurity being leveraged in accounting practices to **supplement practitioners in their job tasks**, practitioners are required to be acquainted with these new technology tools to **manage deliverables** provided by technology and **interpret insights** from data
- Leaders will also need to have a strong understanding of the various emerging technologies, to **evaluate technology tools** and make **strategic decisions on tools to invest in**, to drive greater efficiencies for their business
- With digitalisation and changing client expectations, talent with hybrid skills (i.e. accounting skills and technology skills such as **data interpretation and cybersecurity skills**) will be increasingly in demand to be future-ready



There is a growing emphasis on honing soft skills to meet the sector's changing expectations

- Due to **COVID-19**, remote working is increasingly becoming the new normal. Being able to **communicate effectively with clients and teams** in a **physical and virtual setting** is a priority as practitioners must **understand their clients' needs well**, connect with clients regularly to articulate the value proposition of accounting practices and **go-to-market strategies** in a hybrid working environment
- Practitioners should possess **strong communication skills, customer orientation skills, critical thinking and business acumen**



To adopt a growth mindset and be proactive in pursuing continuous learning

- With the rapid changes in megatrends, accounting standards and digitalisation, practitioners should **take charge of their upskilling** endeavours to continuously pick up **technology and soft skills** to be future-ready

Study overview: Emerging job roles as a result of trends

3 emerging job roles across multiple functional tracks

With the **increased pace of digitalisation** and **megatrends** impacting the accounting practices sector, new roles will emerge to meet the new needs and expectations of clients. Hence, accounting practices will require talent with different skillsets to join the sector.



Short-term**
IT Auditors
 (Assurance, Risk Advisory* and Internal Audit)

With the **increased pace of technology adoption**, accounting practitioners should take into consideration the resulting **changes in the client's environment**.

Job Description:

The role will assist clients in assessing/evaluating Information Technology (IT) systems and the mitigation of IT-related business risks to ensure IT control. These engagements would be Assurance and Risk Advisory* in nature.

Key Responsibilities

- Plan the engagement and develop work programme timelines, risk assessments
- Perform fieldwork and apply a thorough understanding of complex information systems
- Define and implement solutions for controls over IT-supported processes to enhance business processes and internal controls



Short-term**
Ethical Hackers
 (Financial Forensics)

To minimise financial reporting misconduct and cyberattacks, the scope for financial forensics will **expand to require assessment and pre-emption of system vulnerabilities**.

Job Description:

The role will perform penetration testing and other cybersecurity testing methodologies to ensure that proper governance and controls are in place to detect vulnerabilities in clients' systems, pre-empt attacks and strengthen their systems.

Key Responsibilities

- Perform various penetration testing or cyberattacks to find security flaws
- Monitor security systems by scanning the environment for vulnerabilities and determining the threat level
- Develop new and innovative strategies to identify issues within the security systems
- Advise clients on security issues and remediation solutions for vulnerabilities

Short to Medium-term**

Environmental, Social and Governance (ESG) Specialists
 (Financial Accounting and Business Valuation)



With the growing concerns of sustainability and societal impact, there is **greater emphasis on non-financial reporting**. Hence, ESG is becoming an area of growth.

Job Description:

The role will develop and/or review ESG frameworks and policies including ESG reporting and risk management structures according to relevant industry standards and best practices.

Key Responsibilities

- Identify and assess the impact of emerging social and environmental trends on the client
- Develop ESG strategy and initiatives aligned to the business strategies
- Implement and/or review ESG reporting structures to ensure compliance to local and international regulations and standards

* Risk Advisory refers to Enterprise Risk Management functional track in SFw for Accountancy

** Estimated timeline of demand for emerging job roles (Short-term: Current to 2 years | Medium-term: 2 to 5 years)

Study overview: Growth areas as a result of the impact of trends

1,700 jobs to be created over the next 5 years as the accounting practices sector is projected to experience an average headcount CAGR of 1.9%****

As **emerging technologies and megatrends** impact the accounting practices sector, the **job tasks, skills and expectations** of practitioners have **evolved**.

Changing client expectations to provide more advisory services, and an increasing emphasis on non-financial metrics have enabled **growth** and new **jobs are projected to be created** in the accounting practices sector.

To meet the evolving demands of the sector, the workforce need to remain progressive where practitioners need to **upskill to be future-ready** and leverage **technology for greater productivity**.

Furthermore, **to meet the growing demands of the sector**, accounting practices should enhance their **talent attraction and development efforts** to attract high-quality talent.

Growth is expected across all functional tracks at varying degrees

As different functional tracks are experiencing a **different pace of growth**, the **growth rate for headcount projections** needs to be adjusted accordingly to **reflect market sentiments** and the **impact of COVID-19** on accounting practices. The following data points have been triangulated to determine the **headcount growth range** for each functional track:



SAC AECensus¹ average year-on-year growth rate



Singapore GDP growth rate^{2#}



Industry Transformation Map (ITM) for Professional Services³



Inputs from our industry outreach



Accountancy Roadmap⁴

Accelerated growth is defined as :

Functional tracks whose upper range of estimated growth rate is **more than or equal to 4.5%** for the next 5 years

- Tax
- Risk Advisory**
- Mergers and Acquisitions***
- Financial Forensics
- Business Valuation

Continuous growth is defined as

Functional tracks whose upper range of estimated growth rate is **less than 4.5%** for the next 5 years

- Assurance
- Financial Accounting
- Restructuring and Insolvency***
- Corporate Secretarial
- Internal Audit

Potential solutions to meet the growing needs of the sector

Due to the war for talent which is driven by **Singapore's declining birth rates** and the availability of **new courses in other industries**, that may spark more interest amongst students, there is a need to have a mindset shift to explore a **wider scope of talent supply sources** to meet sector headcount demand. Accounting practices should also **rethink their employer branding and Employee Value Proposition (EVP)** to uplift sector image so as to attract, retain and develop high-quality talent within the sector.

Potential areas to tap on for **alternative talent supply sources** includes: **Work-Study Programmes, Mid-Careerist Programme, job redesign** and tapping on inflow of **talent from other functional tracks or commercial sectors**.

* Headcount growth is for roles in accounting practices and has taken into consideration supply constraints that may affect the sector's growth trajectory. Private Education Institutions (PEIs) were not considered when determining the headcount supply for the sector. Nonetheless, PEIs are another talent supply source to consider to meet sector demand | ** Risk Advisory refers to Enterprise Risk Management functional track in SFw for Accountancy | *** Indicates slower growth due to economic uncertainty resulting from the COVID-19 pandemic. However, industry players shared that there is potential for a greater degree of growth post-COVID-19. Note: The 1,700 jobs projected to be created within the sector over 5 years have been rounded off. | ****The sector is projected to experience an average headcount CAGR of 1.9%, from 2021 to 2025. CAGR refers to compound annual growth rate in headcount, from 2021 to 2025. | #The following GDP trajectory was taking into consideration, amongst other factors, when developing the growth rate range: Lower bound: 1% CAGR, Upper bound: 3% CAGR

Sources: 1. [SAC AECensus](#) | 2. [MTI Economic Survey](#) | 3. [Industry Transformation Map](#) | 4. [Accountancy Roadmap](#) | 5. [MOE Data](#)

Study overview: Potential solutions to meet the growing needs of the sector

Summary of potential solutions to manage the growing needs of the sector



Work-Study Programmes¹

- Targeted at ITE, Polytechnic and University graduates
- *Applicable for Assurance, Financial Accounting, Corporate Secretarial*



Mid-Careerist Programme

- Targeted at individuals with 2 to 3 years of work experience and exploring a career switch
- Also for functional tracks with lower barriers to entry
- *Applicable for Assurance, Tax, Risk Advisory*, Corporate Secretarial*



Job Redesign

- Initiatives targeted at the most junior level (e.g. Associates)
- *Applicable for Assurance, Tax, Financial Accounting, Corporate Secretarial, Internal Audit*



Tap on vertical outflow (from other functional tracks)

- Talent from one functional track moving to another track
- E.g. Audit to Financial Forensics, Mergers and Acquisitions, Business Valuation, Restructuring and Insolvency
- *Applicable for Mergers and Acquisitions, Business Valuation, Financial Forensics, Restructuring and Insolvency, Internal Audit*

Tap on horizontal outflow (in-house roles)

- Talent from the commercial sector joining the accounting practices sector
- E.g. Corporate Secretariats from listed companies
- *Applicable for Corporate Secretarial*

Functional tracks in consideration

Assurance	Financial Forensics
Tax	Restructuring and Insolvency
Financial Accounting	Corporate Secretarial
Risk Advisory*	Internal Audit
Mergers and Acquisitions	Business Valuation

* Risk Advisory refers to Enterprise Risk Management functional track in SFw for Accountancy
Source: 1. [Work-Study Programmes](#)

Study overview: Recommendations (1/2)



OUTLOOK OF RECOMMENDATIONS FOR THE ACCOUNTING PRACTICES SECTOR



As the accounting practices sector will be **impacted by emerging technologies and megatrends** which **change the way tasks** are being **performed**, practitioners must continue to upskill in **technology skills, domain skills and soft skills** to keep up to speed with the **changing industry trends** and to be future-ready. These recommendations will **outline upskilling opportunities for practitioners**.

There is urgency to ensure that accounting practices are ready to embrace technological advances, adapt to remote working as the new normal, uplift the capabilities of the workforce to meet the changing needs of clients and build sector appeal. This requires **concerted effort and longstanding partnership amongst the various stakeholders** mentioned. This set of recommendations seeks to **outline plausible ways forward** that **key stakeholders of the sector can work together** to propel Singapore's accounting practices sector forward.

HEADCOUNT DEMAND FOR THE SECTOR

KEY CHALLENGES FACED BY THE SECTOR

- 1  Technology/
digitalisation journey
- 2  Remote
working
- 3  Changing client
expectations
- 4  Low sector appeal

KEY CHALLENGES FACED BY THE SECTOR

STRATEGIC THRUST #1:

Embracing Technology

STRATEGIC THRUST #2:

Investing in Capability Building for the Industry

STRATEGIC THRUST #3:

Uplifting Sector Image



KEY CHALLENGES FACED BY THE SECTOR



Organisations



Individuals

Study overview: Recommendations (2/2)

Recommendations for way forward

Recommendation #1

Encourage adoption of emerging technologies to drive workforce productivity

1.1: Accelerate efforts to adopt emerging technologies to build a future-ready workforce

Organisations



1.2: Take ownership and be proactive to pick up digital skills

Individuals



Recommendation #2

Drive job redesign adoption to maintain long-term competitiveness and agility

2.1: Relook at existing jobs in alignment to the future of work in the accounting practices sector

Organisations



Recommendation #3

Embrace talent from a wide range of talent supply sources to meet the sector's manpower demand

3.1: Expand talent supply sources (e.g. mid-careerists, talent in in-house finance corporate roles, freelancers, retirees etc.) to meet sector headcount demand

Organisations



Recommendation #4

Re-assess the current workforce's skills and create a roadmap for acquiring future skills, to build a future-ready workforce

4.1: Emphasise on upskilling to build a future-ready workforce*

Organisations



Recommendation #5

Elevate the accounting practices sector's image and appeal to attract the best talent

5.1: Re-evaluate Employer Branding and Employee Value Proposition (EVP)

Organisations



* There are terms and conditions that apply for the various programmes



Trends impacting the accounting practices sector

Overview of 5 emerging technologies and 4 megatrends impacting the sector

Through in-depth interviews and consultations with SMEs, **9 trends** have been identified in this study to understand the impact on the accounting practices sector.

FIVE EMERGING TECHNOLOGIES^{1,2}

<p>Artificial Intelligence (AI) & Analytics</p> 	<p>Intelligent Automation</p> 	<p>Blockchain</p> 	<p>Cybersecurity</p> 	<p>Cloud Computing</p> 
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FOUR KEY MEGATRENDS

<p>Changing Public/Client expectations</p> 	<p>Move towards Outsourcing & Offshoring</p> 	<p>COVID-19</p> 	<p>Workforce Challenges</p> 
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Time Horizon
Short-term: Current to 2 years | **Medium-term:** 2 to 5 years | **Long-term:** >5 years

Note:
 Industry practitioners have shared that Environmental, Social and Governance (ESG) is an emerging area and new roles will arise in this area.

Sources:
 1. EY TechWatchNow 2019, "Plug in to the Future of Tech Innovation", 2019
 2. Mapping TradeTech, "Trade in the Fourth Industrial Revolution, WEF Insights Report", 2020

Trends impacting the accounting practices sector: 5 emerging technologies

FIVE EMERGING TECHNOLOGIES^{1,2}

	AI & Analytics	Intelligent Automation	Blockchain	Cybersecurity	Cloud Computing
					
What is it?	AI technology is able to simulate human intelligence to replace tasks. Advanced Analytics will provide key insights and trends .	Intelligent Automation enables the automation of laborious, manual and high-volume repetitive tasks or complex data handling actions.	Blockchain is a specific type of database where information is gathered into blocks, decentralised and linked uniquely, which increases data security and transparency .	Cybersecurity is the practice of protecting systems, networks and programmes from cyber threats, preventing unauthorised access to sensitive information	Cloud Computing allows the accessibility of computer system resources to employees with access to the internet and authorised devices.
Application	AI & Analytics form correlations between different datasets , analyse end-to-end digital financial operating cycles, and demonstrate how an entity has recorded transactions. This will assist auditors to identify accounting issues, trends and anomalies in business processes, shifting auditors' focus to solving complex issues and provide insights on improvements .	Intelligent Automation will automate administrative and repetitive tasks for auditors such as bank confirmations, casting of financial statements and accounts receivable confirmations. Tax professionals can also leverage Intelligent Automation to perform computational proofing checks.	Accounting practices can use Blockchain to transfer ownership of assets and maintain accurate information in the ledger. The technology provides clarity and efficiency over ownership of assets and obligations .	Cybersecurity becomes increasingly important with digitalisation as organisations need to ensure that the right measures are in place to safeguard sensitive data such as clients' personal information and financial records.	Cloud Computing enables real-time reporting and visibility to accounting practices, providing accurate account balances and minimising human errors caused by manual entries.

Sources:

1. What does the EY Digital Audit change for auditors and for CFOs, EY Thought Leadership, 2020
2. Tax Technology and Transformation Survey 2020, EY Thought Leadership, 2020

Trends impacting the accounting practices sector: 4 megatrends

FOUR KEY MEGATRENDS

Megatrends with direct impact on job tasks



Changing Public/ Client Expectations

- Most practitioners have been focusing on compliance and reactive activities. Clients today **expect practitioners to provide more advisory services** (e.g. suggestions to improve their accounting processes)
- Emerging technologies will soon replace certain repetitive and manual tasks. Hence, **clients are expecting practitioners to broaden their job tasks and provide more pre-emptive services** (e.g. play a more proactive role in identifying and preventing fraud, provide recommendations on internal controls, clearer representation of accounts using the latest IFRS accounting standards and optimise tax computations)



Move towards Outsourcing & Offshoring

- There will be **demand** for services offered by accounting practices as **clients look to outsource portions of their finance functions** to accounting practices. In a study conducted by Gartner¹, 74% of CFOs shared that they expect to move previously on-site employees to remote centres
- Accounting practices are **exploring offshoring activities** that are **transactional** and **repetitive** in nature, to **reduce labour and operational costs** (e.g. data cleansing activities). Hence, this **enables practitioners to focus on advisory and complex tasks**

Megatrends with indirect impact on job tasks



COVID-19

- COVID-19 has **disrupted** most processes that **require physical sighting** of paper-based documentations and on-site audits for financial, risk management and internal control systems. Although the pandemic has accelerated digital transformation, professional judgement still remains critical as the value and deliverables provided by practitioners continue to benefit clients and their processes
- There is also greater emphasis on the **physical and mental well-being** of employees as working from home has resulted in challenges to the separation of work and personal life



Workforce challenges

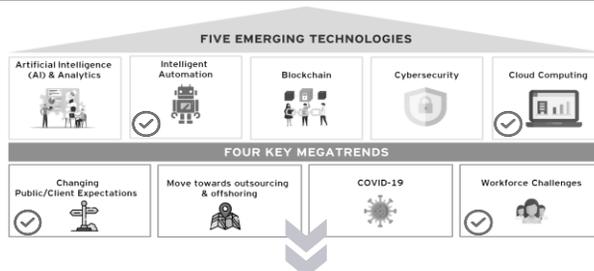
- The sector typically faces **challenges in attracting and retaining talent** as the **lack of work-life balance is a deterrent for new entrants**, along with the **requirement for professional certifications for some functional tracks** (e.g. CPA, CA and SCAQ) as practitioners climb up the ranks
- The **new generation of entrants** have **different expectations** and are looking for more flexible work schedules, culture and increased communication at different levels within the organisation. In addition, other sectors (e.g. Information and Communications Technology) are offering more competitive salaries and this is another factor deterring talent from joining accounting practices

Source:

1. Gartner CFO Survey Reveals 74% Intend to Shift Some Employees to Remote Work Permanently, Gartner, 2020

Overall impact of trends across various lenses

Through in-depth interviews and consultations with SMEs in the sector, we have **identified 9 emerging trends.**



We have assessed the impact of these 9 trends on the accounting practices sector through **multiple lenses:**



#1: Increase productivity

- Increased productivity allows practitioners to focus on complex and advisory tasks



#2: Opportunities to learn new skills

- Present opportunities for practitioners to learn new skills to remain relevant
- Encourage a growth mindset



#3: Increase sector appeal

- The nature of work is important as practitioners are more inclined to perform advisory tasks
- Visibility of career pathways

4 KEY INSIGHTS ON OVERALL IMPACT OF TRENDS



Intelligent Automation

- Practitioners can focus on **advisory tasks**, resulting in **greater appeal** to join the sector
- Provide practitioners with an **opportunity to learn new skills** to remain **competitive** in the accounting practices sector



Cloud Computing

- Cloud Computing **increases productivity** by facilitating collaboration amongst virtual teams
- Practitioners are presented **opportunities to learn new skills** to manage Cloud Computing and its associated risks



Changing Public/Client expectations

- Practitioners are expected to **bring greater value to clients**
- Practitioners are expected to **provide insights, drive process improvements** and **business solutions** for clients



Workforce Challenges

- This is present across all functional tracks, especially for **Assurance, Tax, Financial Accounting, and Corporate Secretarial**
- Public perceptions of the **nature of work** and lack of **visibility of career pathways** deter talent from joining/staying in the sector

Key impact of trends on the accounting practices sector

In this study, EY engaged with industry practitioners and subject matter experts and arrived at the following findings:



Technology trends have enabled practitioners to increase productivity

- Most technologies and outsourcing/offshoring of process-based tasks will enable job holders to focus on **complex and advisory tasks**
- The nature of work in **Risk Advisory*** and **Financial Forensics** typically needs to be performed on-site. Hence, industry practitioners shared that the **possibility of outsourcing/offshoring is lower**
- **Blockchain** is still in its **nascent** stage and will only impact the sector in the longer term (beyond 5 years). It will apply to certain functional tracks, where a more secure audit trail increases productivity for practitioners when performing checks



Trends have created opportunities for practitioners to upskill themselves

- With the increasing use of technology, **practitioners will require upskilling** to manage technology, its associated risks and interpret technology deliverables
- With COVID-19 & workforce challenges, practitioners need to learn new skills to **manage teams remotely** and **adjust management styles** to attract and retain the right talent
- Outsourcing/offshoring process-based tasks require practitioners to learn new skills to **manage offshore teams** and ensure the quality of deliverables promptly



Trends have enhanced sector appeal to talent

- The nature of work to be performed and the presence of **varied career pathways** influence the attractiveness of the accounting practices sector
- Some functional tracks (i.e. Assurance, Tax, Financial Accounting and Corporate Secretarial) face **greater workforce challenges** as the tasks are perceived to be transactional in nature
- AI & Analytics, Intelligent Automation, changing public/client expectations and outsourcing/offshoring trends enable job holders to focus on **advisory tasks**. Hence, this elevates the perception of the tasks performed and enhances sector appeal to talent

* Risk Advisory represents the Enterprise Risk Management functional track in SFw for Accountancy

Key trends impacting each functional track (1/2)



ASSURANCE & TAX

- **High attrition rates** and **difficulty in attracting high-quality local talent** are key challenges for the sector due to the nature of work and pursuit of a healthier work-life balance
- **Changing public/client expectations** will require practitioners to provide more business insights and understand how the latest regulations impact clients. Hence, practitioners need to leverage technology to focus on **advisory tasks** (e.g. use of Analytics to crawl through source documents and consolidate research findings to identify potential risks in key business activities)
- **COVID-19 and remote working** have resulted in practitioners having to **adapt work processes** (e.g. moving away from physical to virtual sighting)



FINANCIAL ACCOUNTING

- There are increasing **expectations** from clients to focus on **performing financial statement analyses** and providing **recommendations to improve existing processes**. Practitioners can leverage Intelligent Automation for manual and repetitive tasks (e.g. data entries, retrievals and account payables), enabling more focus on **complex and advisory tasks**
- There is **expected growth** in this sector as **clients are increasingly outsourcing** portions of their finance functions as part of their business continuity plans



RISK ADVISORY*

- Clients are expecting practitioners to **pre-empt and manage risks** arising from technology implementations and changing market conditions (e.g. technologies will enable a more data-driven approach to make more informed decisions)
- **AI, Analytics and Intelligent Automation** assist practitioners in identifying and monitoring risks, enabling them to **focus on risk assessment and advisory** (e.g. data analytics tools track, collect and assess user data to understand interactions and dynamics between different individuals or entities, thus identifying and preventing risks)
- As the **scope of risks expands, multi-disciplinary talent** with the ESG lens will be highly valued



MERGERS AND ACQUISITIONS, RESTRUCTURING AND INSOLVENCY

- AI & Analytics are leveraged to support computation of financial ratios, enabling practitioners to **drive more data-driven conversations** with their clients (e.g. Analytics can provide more analyses and insights on the various simulated scenarios more efficiently)
- Multi-disciplinary talent with **legal, finance and data interpretation skills** are highly sought-after to meet **increasing client expectations**

* Risk Advisory represents the Enterprise Risk Management functional track in SFw for Accountancy

Key trends impacting each functional track (2/2)



FINANCIAL FORENSICS

- **Cybersecurity and Cloud Computing** have resulted in more **sophisticated digital crimes**. Hence, practitioners will need to build understanding in **internal processes and cloud systems** to effectively perform thorough digital investigations
- Clients are increasingly expecting practitioners to be well-versed in performing both **reactive and pre-emptive types of financial forensics investigations** (e.g. AI & Analytics can scan through a large volume of transactions to detect abnormalities in real-time and at speed, and to pre-empt possible crimes)



CORPORATE SECRETARIAL

- **Talent attraction and retention** are key challenges for the sector due to the nature of work and **limited emphasis and clarity on career pathways**
- Emerging technologies can be **leveraged to a greater extent** to drive greater efficiency within the sector (e.g. board meetings can be digitalised with the use of video conferencing and electronic voting. Cloud Computing facilitates the sharing and referencing to documents)



INTERNAL AUDIT

- **Talent attraction and retention** are key challenges due to **lack of clarity of career pathways** within the Internal Audit profession
- The increasing use of emerging technologies for internal audit give rise to the need for practitioners to be equipped **with automation management and cybersecurity skills** (e.g. Automatic controls can be integrated into operational processes and the data collected can be analysed for insights. Repetitive controls can also be used to identify risks patterns)
- **Multi-disciplinary talent** with the ESG lens will be highly valued by the sector



BUSINESS VALUATION

- Intelligent Automation and AI & Analytics will be **enablers for computational valuation activities**. Practitioners will focus on **complex and advisory tasks** (e.g. IA automatically encodes data into excel, AI and Analytics allow data from multiple platforms to be captured on a single application)
- Multi-disciplinary talent with **software, financial valuation and ESG valuation skills** will be highly sought-after as the sector pivots towards an all-encompassing model to **meet clients' changing needs** pertaining to both **financial and non-financial aspects of valuation**

Emerging job roles as an impact of trends

- 3.1. [Emergence of new job roles](#)
- 3.2. [Snapshot of emerging job roles](#)
- 3.3. [Job dashboards and case studies for emerging roles](#)

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Emerging job roles are created as trends have resulted in evolving demands of the sector



The ignition of new roles



Emerging technologies and megatrends resulted in new roles engendered across various functional tracks within the accounting practices sector.

As service providers, accounting practices have to adapt to the new needs of their clients. Thus, with the increased pace of technology adoption and the rise of new economic and social concerns, accounting practices are facing changing public/client expectations.

These new trends have resulted in the emergence of new roles as new and/or more in-depth knowledge and skills are required for accounting practices to remain relevant to their clients.

Definition of a new job role

In this study, we refer to these new job roles as roles that are not commonly found in the accounting practices workforce today but will potentially sustain an upward trend in hiring demand beyond the next 5 years.

These roles are in line with the emerging technologies and megatrends which industry practitioners and experts foresee will impact the accounting practices workforce in the next 5 years and beyond.

Methodology employed

To identify these job roles, we tapped on insights from industry practitioners, sector experts, and references to global and EY thought leadership. These 3 emerging job roles represent new areas of business growth resulting from emerging technologies and megatrends impacting the industry.

These insights on new job roles encompass larger industry trends and represent societal shifts that will impact the accounting practices workforce. It helps job seekers to understand the types of jobs and skills required for future up-and-coming jobs and provide guidance to employers in identifying areas that require investment to build up a future talent pipeline.



IT Auditors

Short-term*



Ethical Hackers

Short-term*



Environmental, Social and Governance (ESG) Specialists

Short to Medium-term*

* Estimated timeline of demand for emerging job roles (Short-term: Current to 2 years | Medium-term: 2 to 5 years)

3 new job roles have emerged as a result of trends

With the **increased pace of digitalisation** and **megatrends** impacting the accounting practices sector, new roles will emerge to meet the new needs and expectations of clients. Hence, accounting practices will **require talent with different skillsets** to join the sector.



IT Auditors (Assurance, Risk Advisory* and Internal Audit)

Short-term**

- With the accelerated pace of digitalisation for both accounting practices and clients, the **use of technology** to support practitioners in work processes is becoming more **prevalent**. For example, **Intelligent Automation and AI & Analytics** will cleanse and analyse voluminous clients' data respectively. **Cloud Computing** will support real-time collaboration amongst clients and teams
- Hence, there will be increasing **emphasis** to manage **IT-related business risks**, giving rise to the role of IT auditors. The engagements would typically be **Assurance and Risk Advisory* in nature***
- In addition, there are **expectations from clients** to provide **advisory services** on IT governance and its effectiveness. Hence, IT auditors will play an important role to assess and enhance IT controls, security and automation processes



Ethical Hackers (Financial Forensics)

Short-term**

- With both clients and accounting practices moving towards storing confidential information on cloud systems, **cybersecurity** becomes a pressing concern within the accounting practices sector. The use of emerging technologies (i.e. Cloud Computing, Intelligent Automation and AI & Analytics) will **change clients' business processes**, resulting in the **rise of digital fraud** in the financial space
- With **changing public/client expectations**, there is an increasing demand for **pre-emptive type of services**, which will require the expertise of **ethical hackers** to ensure that proper governance and controls are in place (e.g. detect vulnerabilities in clients' systems, pre-empt attacks and strengthen their systems)
- To minimise the possibility of **financial reporting misconduct and cyberattacks**, the scope for financial forensics will expand to stress-test clients' security defences, assess and pre-empt system vulnerabilities



Environmental, Social and Governance (ESG) Specialists (Financial Accounting and Business Valuation)

Short to Medium-term**

- Organisations are placing more emphasis on **non-financial reporting** as the public and clients have an increasing focus on achieving **sustainability goals**, to address societal concerns. Hence, non-financial metrics are also becoming more important to determine the true value of an organisation
- While ESG is seen as an **emerging area**, there is a **lack of clarity** in terms of **international standards** to abide by when **evaluating the ESG value** of a firm today. Therefore, this is an emerging role, especially for:
 - **Assurance and Financial Accounting** practitioners to be cognisant of how to present non-financial reports, set the standards required for reporting and encompass ESG within current checks
 - **Business Valuation and Mergers and Acquisitions** practitioners to incorporate ESG within valuation models

* Risk Advisory refers to Enterprise Risk Management functional track in SFw for Accountancy

** Estimated timeline of demand for emerging job roles (Short-term: Current to 2 years | Medium-term: 2 to 5 years)

Emerging job roles as an impact of trends

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Snapshot of these 3 emerging job roles



Short-term*

IT Auditors

With the increased pace of technology adoption, accounting practitioners should take into consideration the resulting changes in the client's environment.

Click [here](#) for more details

Job Description:

The role will assist clients in assessing/evaluating Information Technology (IT) systems and the mitigation of IT-related business risks to ensure IT control. These engagements would be Assurance and Risk Advisory in nature.

Key Responsibilities

- Plan the engagement and develop work programme timelines, risk assessments
- Perform fieldwork and apply a thorough understanding of complex information systems
- Define and implement solutions for controls over IT-supported processes to enhance business processes and internal controls



Short-term*

Ethical Hackers

To minimise financial reporting misconduct and cyberattacks, the scope for financial forensics will expand to require assessment and pre-emption of system vulnerabilities.

Click [here](#) for more details

Job Description:

The role will perform penetration testing and other cybersecurity testing methodologies to ensure that proper governance and controls are in place to detect vulnerabilities in clients' systems, pre-empt attacks and strengthen their systems.

Key Responsibilities

- Perform various penetration testing or cyberattacks to find security flaws
- Monitor security systems by scanning the environment for vulnerabilities and determine the threat level
- Develop new and innovative strategies to identify issues within the security systems
- Advise clients on security issues and remediation solutions for vulnerabilities



Short to Medium-term*

Environmental, Social and Governance (ESG) Specialists

With the growing concerns of sustainability and societal impact, there is **greater emphasis on non-financial reporting**. Hence, ESG is becoming an area of growth.

Click [here](#) for more details

Job Description:

The role will develop and/or review ESG frameworks and policies including ESG reporting and risk management structures according to relevant industry standards and best practices.

Key Responsibilities

- Identify and assess the impact of emerging social and environmental trends on the client
- Develop ESG strategy and initiatives aligned to the business strategies
- Implement and/or review ESG reporting structures to ensure compliance to local and international regulations and standards

* Estimated timeline of demand for emerging job roles (Short-term: Current to 2 years | Medium-term: 2 to 5 years)

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**Trends impacting this role**

AI & Analytics



Cybersecurity

Changing Public/
Client Expectations

Cloud Computing

Responsibilities of the role

This job role is responsible for participating in multiple client engagement teams, evaluating IT systems and mitigating IT-related business risks. These engagements pertain to financial attestation, International Standard on Assurance Engagements 3402 (ISAE 3402**) and IT risk advisory work on IT governance and effectiveness. Job holders will analyse, evaluate and enhance information systems facilitating business internal control process, and will assist clients in performing IT control and security engagements.

Job Tasks

- Collaborate with other members of the engagement team to plan the engagement and develop work programme timelines, risk assessments, and other planning documents
- Perform fieldwork and apply a thorough understanding of complex information systems
- Document the business processes dependent on IT
- Direct and track the daily progress of fieldwork, manage engagement timelines and manage client expectations
- Use knowledge of the current IT environment and industry IT trends to identify engagement and client service issues, and communicate this information to the engagement team and client through written correspondence and verbal presentations
- In-depth knowledge on key risks and expected controls (including compensating controls) in one or more business processes (e.g., procure to pay, closure of financial statements)
- Systematise, improve and integrate business procedures and the coverage of business information in the information systems to enhance information systems to facilitate business processes and internal controls
- Define and implement solutions for controls over IT supported processes

Skills Analysis**Technical Skills (TSC) Required**

- | | | |
|---------------------------------------|---|--|
| • Accounting Standards | • Cyber Risk Management | • Internal Controls |
| • Auditing and Assurance Standards | • Cloud Computing | • Process Improvement and Optimisation |
| • Audit and Compliance | • Data Analysis | • Project Execution and Control |
| • Auditor Independence | • Digital Technology Environment Scanning | • Professional Skepticism and Judgment |
| • Business Process Analysis | • Enterprise Risk Management | • Quality Standards |
| • Business Innovation and Improvement | • Engagement Quality Control | • Risk Advisory |
| • Business Performance Management | • Financial Statements Analysis | • Risk Assessment |
| • Cyber Security | • IT Governance | • Stakeholder Management |
| | • IT Standards | • Strategy Implementation |
| | • Internal Audit Quality Assurance | |

Critical Core Skills Required

- | | | |
|-----------------|------------------------|-------------------|
| • Communication | • Customer Orientation | • Problem Solving |
| • Collaboration | • Digital Fluency | • Sense Making |

*Estimated timeline of demand for emerging job roles (Short-term: Current to 2 years | Medium-term: 2 to 5 years) | **International Standard on Assurance Engagements 3402 (ISAE 3402) is an international assurance standard which provides assurance to an organisation's customer that the service organisation has adequate internal controls

Sources: 1. [CIO – IT Auditor Role](#)

Future-proofing her career by switching to be an IT auditor



Lee Yong Ghooon
Senior IT Auditor, Advisory,
RSM Singapore

“Moving into the IT Auditor role enabled me to have a wider perspective of the business environment

Yong Ghooon is an IT auditor at RSM Singapore. She has always wanted to be in this profession since her university days. She attributes this aspiration to her personality – she enjoys learning new skills and solving complex problems. Yong Ghooon believed that the demand for this profession would continue to grow, looking at the speed that technology was (and is still) evolving in the business domain. As landing an IT auditor job is not an easy feat, she decided to pursue a degree in Business Information Technology to first acquire relevant knowledge. Upon attaining her degree, she spent the first 10 years of her work life in IT outsourcing roles to amass experience before switching to become an IT auditor which was her dream job.

Share with us about your transition from an IT operations to IT audit role

“I knew it was not going to be easy and I needed to be well prepared for changes, be it mentally, physically or psychologically. I was aware that I needed to gain prior knowledge and experience in auditing before I could live out my dream job. It was then I chanced upon the **Career Conversion Programme (CCP) for Internal Audit - a programme developed for mid-career switchers**, helping them **undergo a skills conversion** process to **carve out a new career**. That was when I decided to go for it!” She explained that the programme provided her classroom training where she acquired skillsets essential to a junior auditor. Yong Ghooon enjoyed the experiential learning through group discussions, role plays, and case studies. It allowed her to better understand and apply the concepts she learnt. It also complemented the **on-the-job training** at RSM Singapore, where she was given opportunities to apply what she learnt. Her colleagues also shared their auditing experiences and industry best practices with her.

What are some challenges you faced in your transition and how did you overcome them?

“Identifying risks and internal controls related to the processes that I audited, asking the right questions and communicating concisely with my clients,” explained Yong Ghooon. She shared that the **strong support from her team**, with their guidance and mentoring, allowed her to experiment different approaches to her tasks. This sped up her learning process.

Tell us what do you enjoy most about your role

Yong Ghooon enjoys the **breadth of learning** and gets a great **sense of satisfaction** upon the completion of every engagement.

Advice to individuals who are exploring a career switch to IT audit

“Let go of the past and be a good learner. Be determined, positive, and embrace these changes as this is the start of a new journey,” Yong Ghooon quipped.

**Trends impacting this role**

AI & Analytics



Cybersecurity

Changing Public/
Client Expectations

Cloud Computing

Responsibilities of the role

This job role is responsible for performing security assessments for clients and advanced penetration tests on clients' computers (primarily network penetration testing, web application vulnerability assessment, etc.). This requires familiarity with the infrastructure of the organisation, business operations and assessment of risks. Job holders will ensure that there is proper governance and controls put in place to help clients detect vulnerabilities, pre-empt these attacks and help them strengthen their systems.

Job Tasks

- Scan software environment for vulnerabilities and upon finding any, explore potential risks and vulnerabilities and mitigate these security risks
- Perform regular monitoring of security systems and evaluate reverse engineering malware to determine the threat level
- Perform research via open-source and dark-web channels on the targeted system or user identified to ethically hack and keep abreast of the latest threats and vulnerabilities
- Provide advice on complex security test data analysis to support security vulnerability assessment processes, including root cause analysis
- Incorporate emerging security and risk management trends, issues, and alerts in penetration testing and ethical hacking activities
- Advise clients on security issues, including explanation on the technical details and how they can remediate the vulnerabilities in the systems
- Deliver quality client services and manage client expectations
- Monitor project progress, manage risk and ensure key stakeholders are kept informed about progress and expected outcomes
- Develop new and innovative strategies to identify issues within the security systems

Skills Analysis**Technical Skills (TSC) Required**

- | | | |
|---|--|---------------------------------------|
| • Audit and Compliance | • Financial Analysis | • Security Strategy |
| • Cyber and Data Breach Incident Management | • IT Governance | • Stakeholder Management |
| • Cyber Forensics | • IT Standards | • Strategy Implementation |
| • Cyber Security | • Network Security | • Test Planning |
| • Cyber Risk Management | • Programming and Coding | • Threat Analysis and Defence |
| • Cloud Computing | • Project Execution and Control | • Threat and Vulnerability Management |
| • Data Analysis | • Professional Skepticism and Judgment | • Threat Intelligence and Detection |
| • Digital Forensics | • Risk Assessment | |
| • Digital Technology Environment Scanning | • Security Assessment and Testing | |
| • Forensic Data Analytics | • Security Governance | |

Critical Core Skills Required

- | | | |
|---------------------|-------------------|------------------------------|
| • Communication | • Digital Fluency | • Sense Making |
| • Creative Thinking | • Problem Solving | • Transdisciplinary Thinking |

* Estimated timeline of demand for emerging job roles (Short-term: Current to 2 years | Medium-term: 2 to 5 years)

Sources: 1. [Glassdoor – Job Postings for Information Security Consultant \(Penetration Tester\)](#) | 2. [Cybersecurity Education Guide – Ethical Hacker](#)

Understanding how the dark web works safeguards data-hungry businesses – The Ethical Hacker



Tan Soon Siang
Director, Risk Advisory,
Deloitte Singapore

“ *Ethical Hacking is also one of the best ways to learn about the technology or system you are hacking* ”

Soon Siang started his career in Deloitte’s Cyber Risk team as an intern and what keeps this passion alive over the past decade is the dynamic nature of the work where adaptability and problem solving are required. He finds satisfaction in safeguarding the cybersecurity posture of his clients. Hence, he decided to pursue a career in this field after completing his Computer Science degree and is now a Director.

Share with us how your role as an ethical hacker has changed over the years

“In the past, ethical hackers mainly test servers and websites. With the emergence of **new technology platforms** such as mobile applications, cloud platforms and Internet of Things (IoT) devices, the **scope of work** for an ethical hacker has **expanded**,” shares Soon Siang. He explains that as accounting practices move towards digitalisation, there has been a rise in cyber attacks and crimes are becoming more sophisticated. Hence, accounting practices need to ensure that the large amount of data that their clients have entrusted them with are kept safe. “There needs to be **proper governance and controls** to help clients **detect vulnerabilities, pre-empt these attacks and help them strengthen their systems**,” illustrates Soon Siang.

He also shares that technology tools have also enabled them to improve their existing processes and drive productivity. “We used to review server configurations line by line manually and now with emerging technologies like **Intelligent Automation**, the scripts automate this process and flag out anomalies. This saves around 70% of our time! The time savings have definitely benefitted my team immensely, allowing them to focus their effort on identifying vulnerabilities in more complex systems, bringing greater value-add and efficiencies to our clients,” added Soon Siang.

What does an ethical hacker do in his day-to-day job?

“There is no typical day for us! Our work ranges from testing operational technology systems to ensure that they meet regulatory requirements of Critical Information Infrastructure (CII), to simulating hacking activities on body cameras/IoT smart devices to pre-empt any possible attacks,” explains Soon Siang. He also shares with much enthusiasm of his experiences in scanning ports in companies’ systems to detect vulnerabilities, attempts to evade intrusion detection systems and performing network traffic analysis. Soon Siang adds that he will then discuss the findings with his clients after the testing. “The key is to **simplify these technical findings and convey the risk and impact to clients concisely**,” explains Soon Siang.

Advice to practitioners who are keen to explore a career in ethical hacking

“Stay curious, stay passionate and never stop learning!,” shares Soon Siang. He emphasised the importance of being **proactive in learning** such as through participating in online hacking challenges and taking up professional certifications such as Offensive Security’s Penetration Testing and CREST Certification.

**Trends impacting this role**Changing Public/
Client Expectations**Responsibilities of the role**

The ESG (Environmental, Social and Corporate Governance) specialist is responsible for implementing and reviewing ESG philosophy and policies. Job holders will develop and evaluate ESG reporting and risk management structures according to relevant and/or applicable industry standards and best practices. The role will assess the impact of ESG megatrends on organisations, develop or recommend improvement of ESG frameworks and monitor activities according to ESG frameworks.

Job Tasks

- Identify and assess the impact of emerging social and environmental megatrends on organisations and assess business strategies, processes and activities by performing due diligence and/or benchmarking the organisation's ESG policies, procedures and performance against peers and sector best practices
- Implement and/or review ESG reporting structures by ensuring compliance to local and international regulations and standards and ensure the timely and correct submission or publication of required ESG reports
- Articulate ESG strategy that is aligned to the business strategies and goals, and develop, monitor, review and update ESG initiatives such as policies, framework, guidelines, programmes and metrics to ensure that ESG strategy is implemented
- Engage internal stakeholders by presenting and developing communication materials to ensure buy-in from investors, board and operational teams and provide subject matter expertise

Skills Analysis**Technical Skills (TSC) Required**

- | | |
|-------------------------------------|---------------------------------|
| • Audit and Review Management | • Governance |
| • Benchmarking | • Internal Controls |
| • Business Acumen | • Macroeconomic Analysis |
| • Business Continuity Management | • Project Execution and Control |
| • Business Process Analysis | • Regulatory Risk Assessment |
| • Change Management | • Risk Advisory |
| • Environment and Social Governance | • Risk Management |
| • Financial Analysis | • Stakeholder Management |
| | • Strategy implementation |

Critical Core Skills Required

- | | | |
|-----------------|-------------------|------------------------------|
| • Communication | • Influence | • Sense Making |
| • Collaboration | • Problem Solving | • Transdisciplinary Thinking |

Growing emphasis on sustainable business practices fuels the demand for ESG talents



Priscilla Tong
 Manager, Climate Change and Sustainability Services,
 Ernst & Young Singapore

“There is no typical day at work. We do and learn new things everyday – and this is what keeps me going

Priscilla’s passion for environmental issues has always been close to heart and cultivated since her school days. Encouraged and driven by passion and interest, Priscilla pursued a career in ESG and is a Manager with the Climate Change and Sustainability Services (CCaSS) department at EY. She has been with the practice for more than 3 years.

ESG will be a key agenda for stakeholders

She shares that sustainability is now a top priority for clients and their stakeholders, who are looking beyond compliance obligations and integrating sustainability into their business strategies. Investors for example, are not only **integrating the ESG lens into their investments and processes**, but also expect their portfolio companies to do the same. In line with this, there is greater demand for practitioners in this field to help clients **create long-term value, manage ESG risks** and opportunities and **safeguard their businesses** to be more **resilient**.

Breadth of advisory work across various industries is a testament to the demand for ESG practitioners

“**Every industry is or will be affected by climate change in one way or the other. Intensified by the burning need to work on climate change and sustainability issues, there is a drive to take on an ESG lens to see the world**” said Priscilla. She explains that an ESG specialist provides a wide range and depth of advisory and assurance services to clients to define and manage their ESG impacts. These include ‘E’, ‘S’ and ‘G’ components from decarbonization strategies, non-financial reporting, sustainable supply chain, environmental risk management, to outcomes measurement and impact investing.

“With the increasing emphasis on **green financing and sustainable finance**, practitioners will play an important role to help clients develop frameworks to structure bonds and loans,” shares Priscilla. “An ESG specialist also helps organisations **address organisational sustainability issues** such as energy, greenhouse gas, water and waste management and measures the **impact and outcome of their social sustainability efforts**,” explains Priscilla.

Existing practitioners need to understand how ESG will broaden their job tasks today

Priscilla shares that as demand rises for ESG information and disclosures, **opportunities will arise for various practitioners** in the areas of ESG reporting and assurance. For instance, Tax practitioners might need to advise clients on related goods and services tax verifications under carbon tax regulations with increasing efforts to reduce carbon footprint globally, while accounting practices will need to consider the various ESG standards for reporting and the impact of risks related to climate that can be material to financial statements. Practitioners in the Business Valuation and Mergers and Acquisitions field might also need to understand how to measure or increase the business value of clients through the ESG lens.

Advice to practitioners who are exploring a career in ESG

“The work we do is dynamic and there are always new standards and initiatives announced by governments around the world from time to time. It is useful for practitioners, both current and those exploring to enter this field, to **proactively keep up with the latest trends and developments happening in this space**”, shares Priscilla.

4 Impact on jobs and skills

4.1. [Key definitions](#)

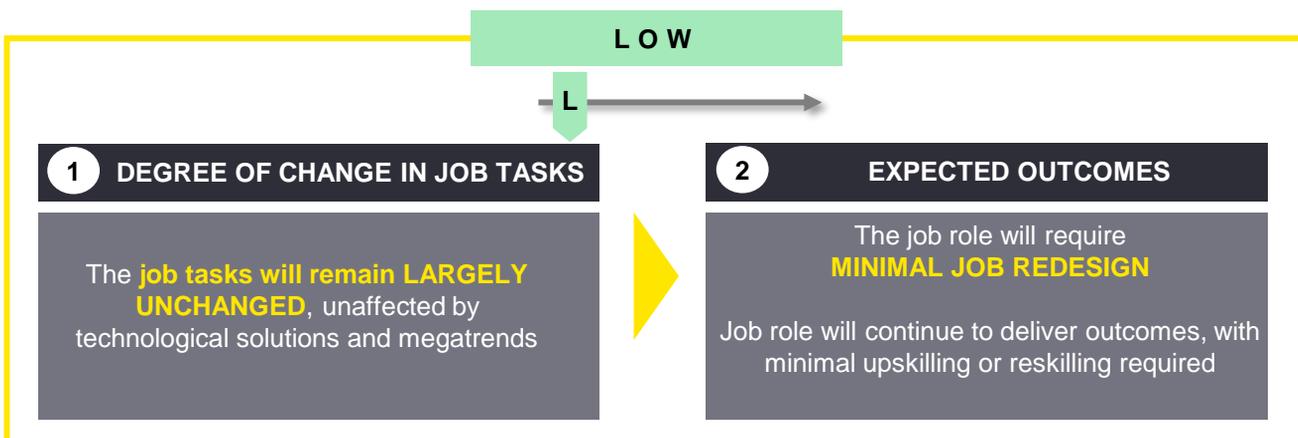
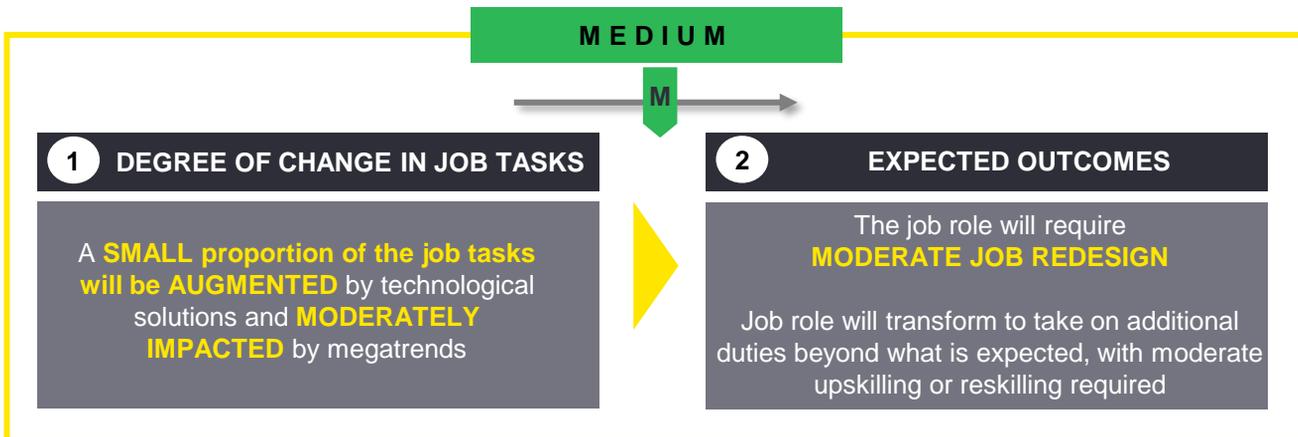
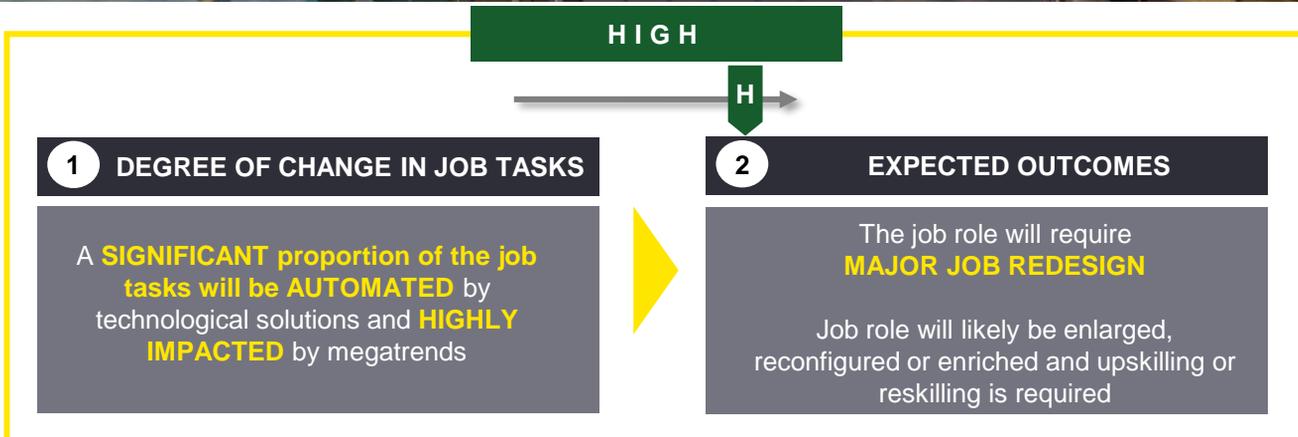
4.2. [Impact assessment](#)

4 Impact on jobs and skills

4.1. Key definitions

4.2. Impact assessment

Job role impact assessment: Key definitions



*Time horizon of impact is independent across the degree of change in job tasks

4 Impact on jobs and skills

4.1. Key definitions

4.2. Impact assessment

Overview of jobs and skills impact analysis

With the advent of technological solutions and megatrends, practitioners in the accounting practices sector need to pivot to the **new ways of working, upskill to remain relevant and meet the needs of the sector**. The jobs and skills impact analysis aims to study **3 key areas of the accounting practices workforce** in Singapore.

1 How will jobs and skills evolve with megatrends and emerging technologies?

Leveraging the SFw for Accountancy, the study examined the impact of emerging technologies and megatrends on a total of **10 functional tracks and 38 job roles**. Adopting a task-based approach, the study uncovered tasks that will be automated, augmented or remain unchanged by technology. Each role will either be highly, moderately or minimally impacted by megatrends, resulting in major, moderate or minimal job redesign.

Output 1

38 job dashboards highlighting the trends impacting each job role, how tasks will evolve and the skills required

2 How can practitioners in “high” impact job roles upskill to be future-ready and take on evolving job tasks?

As a result of emerging technologies and megatrends, upskilling is the crux to remain relevant in the accounting practices sector. This study also aims to **identify potential career pathways for these highly impacted job roles to maximise talent utilisation** within the sector. The focus is to understand the transferrable skills of practitioners and assess the feasibility of retaining talent within the accounting practices sector, to meet manpower demands.

Output 2

7 mobility dashboards sharing potential redeployment opportunities for highly impacted job roles

3 What are the new and emerging job roles within the accounting practices workforce?

In our industry outreach, we collected data on new and emerging job roles within the accounting practices sector. In addition, the study also explored job postings locally and globally to understand hiring trends in the sector. **This led to the identification of 3 new roles which will be in demand** for the sector moving forward.

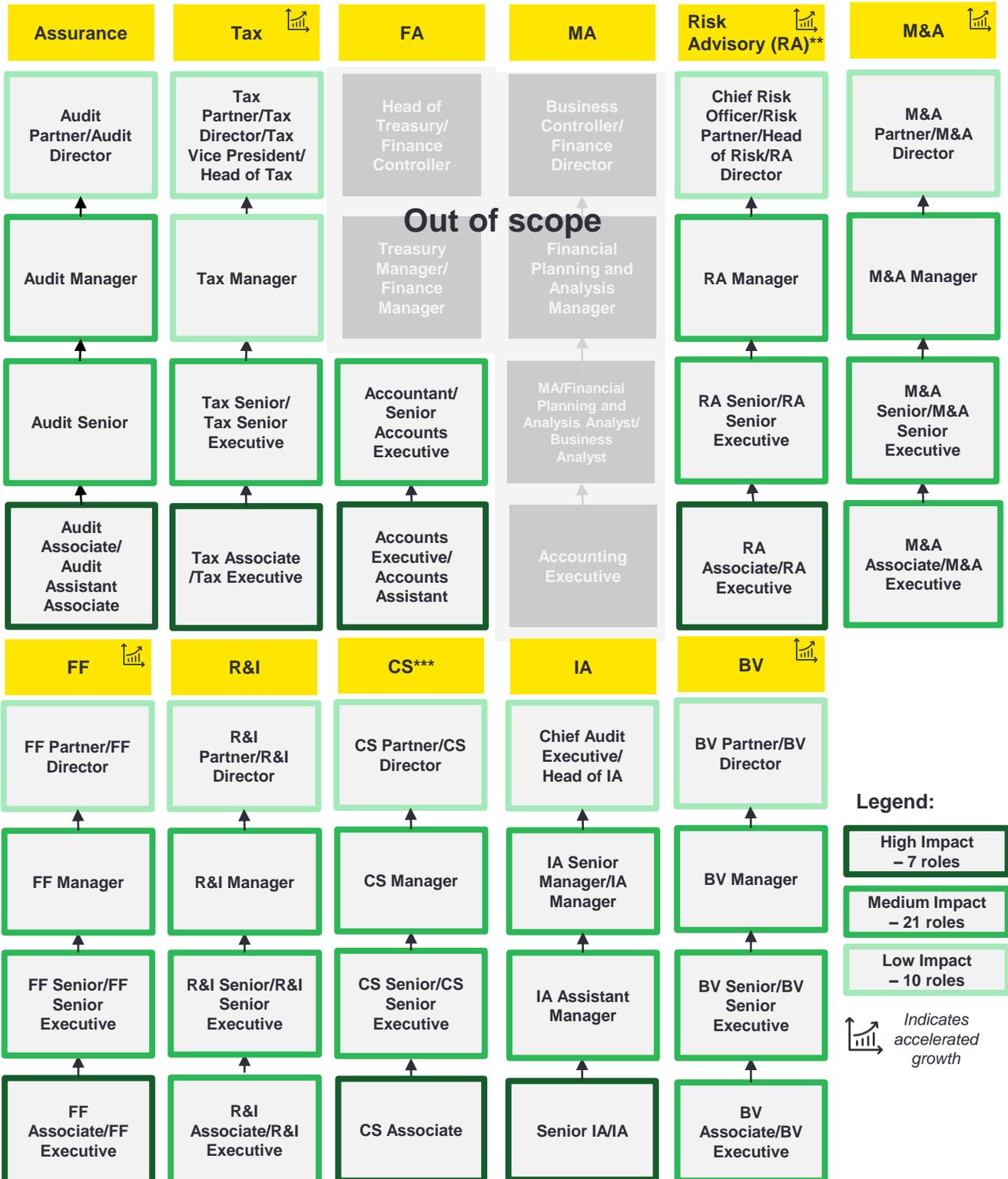
Output 3

Job descriptions are provided for the **3 emerging roles**

*Time horizon of impact is independent across the degree of change in job tasks

A snapshot of the impact assessment for each role*

SFw for Accountancy Career Map*



*In order of workforce composition size

**Risk Advisory represents the Enterprise Risk Management functional track in SFw for Accountancy

***Additional functional track outside SFw for Accountancy

Snapshot of impact assessment across the sector



Within the next 5 years, out of the 38 job roles...

7 job roles i.e. ~18% of the job roles in the accounting practices sector will experience a **high degree of change** in job tasks and require **major redesign**.

- Job role will likely be enlarged, reconfigured or enriched and upskilling or reskilling is required

21 job roles i.e. ~55% of the job roles in the accounting practices sector will experience a **medium degree of change** in job tasks, and will require **moderate redesign**.

- Job role will transform to take on additional duties beyond what is expected, with moderate upskilling or reskilling required

10 job roles i.e. ~27% of the job roles in the accounting practices sector will **remain largely unchanged** and require **minimal redesign**.

- Job role will continue to deliver outcomes, with minimal upskilling or reskilling required

Impact assessment across each job role

HIGH HIGH DEGREE OF CHANGE IN JOB TASKS	MEDIUM MEDIUM DEGREE OF CHANGE IN JOB TASKS	LOW LOW DEGREE OF CHANGE IN JOB TASKS
7 ROLES WILL REQUIRE MAJOR REDESIGN	21 ROLES WILL REQUIRE MODERATE REDESIGN	10 ROLES WILL REQUIRE MINIMAL REDESIGN
<ol style="list-style-type: none"> Audit Associate/Audit Assistant Associate Tax Associate/Tax Executive Accounts Executive/Accounts Assistant Risk Advisory Associate/Risk Advisory Executive* FF Associate/FF Executive CS Associate Senior IA/IA 	<ol style="list-style-type: none"> Audit Senior Audit Manager Tax Senior/Tax Senior Executive Accountant/Senior Accounts Executive Risk Advisory Senior/Risk Advisory Senior Executive* Risk Advisory Manager* M&A Associate/M&A Executive M&A Senior/M&A Senior Executive M&A Manager FF Senior/FF Senior Executive FF Manager R&I Associate/R&I Executive R&I Senior/R&I Senior Executive R&I Manager CS Senior/CS Senior Executive CS Manager IA Assistant Manager IA Senior Manager/IA Manager BV Associate/BV Executive BV Senior/BV Senior Executive BV Manager 	<ol style="list-style-type: none"> Audit Partner/Audit Director Tax Manager Tax Partner/Tax Director/Tax Vice President/Head of Tax Chief Risk Officer/Risk Partner/Head of Risk/Risk Advisory Director* M&A Partner/M&A Director FF Partner/FF Director R&I Partner/R&I Director CS Partner/CS Director Chief Audit Executive/Head of IA BV Partner/BV Director

*Risk Advisory represents the Enterprise Risk Management functional track in SFw for Accountancy

Jobs will evolve for these 7 job roles that have been assessed as “High” impact and upskilling the existing workforce will be the key focus

High Impact Job Roles – 7 roles

Job Roles

Audit Associate / Audit Assistant Associate

Tax Associate / Tax Executive

Risk Advisory Associate/ Risk Advisory Executive*

FF Associate / FF Executive

Accounts Executive / Accounts Assistant

CS Associate

Senior IA/IA

What does this mean for the accounting practices sector?

- There will be **continued headcount demand** in the sector
- **Jobs will evolve** and there will be **opportunities** for job holders to **learn new skills**
- A **significant proportion of job tasks** will change, therefore major **job redesign** is required (e.g. Audit Associates will focus on investigating, performing further tests and client interviews on anomalous samples flagged out by AI instead of manually obtain evidence to validate information. Data Analytics and AI application skills will be required)
- Amongst these roles, tasks performed by **Risk Advisory* and Financial Forensics practitioners have already changed**. Hence, the **proportion of job tasks undergoing job redesign is less** as compared to the other roles. Industry practitioners observed a trend where Assurance Associates are joining the Risk Advisory and Financial Forensics practices
- **Existing talent** who already possess **relevant experience and expertise** will require **upskilling** to new ways of working to meet the sector’s needs (e.g. Risk Advisory Associates will focus on reviewing the outcomes of the machine and defining rules for Intelligent Automation systems which have taken over the manual, time-intensive research and data collection tasks. IA application skills will be required)

Note: In the event where job holders want to leverage their existing skillsets and explore new career pathways, the [list of potential opportunities](#) (within and outside the accounting practices sector) has been identified by:

1. **Practitioners during our industry outreach**
2. **EY SMEs**

* Risk Advisory represents the Enterprise Risk Management functional track in SFw for Accountancy

21 and 10 job roles have been assessed as “Medium” and “Low” impact respectively. Upskilling the existing workforce will be the key focus to be future-ready

Medium Impact Job Roles – 21 roles

Job Roles	
Audit Senior	R&I Associate/R&I Executive
Audit Manager	R&I Senior/R&I Senior Executive
Tax Senior/Tax Senior Executive	R&I Manager
Accountant/Senior Accounts Executive	CS Senior/CS Senior Executive
Risk Advisory Senior/Risk Advisory Senior Executive*	CS Manager
Risk Advisory Manager*	IA Assistant Manager
M&A Associate/M&A Executive	IA Senior Manager/IA Manager
M&A Senior/M&A Senior Executive	BV Associate/BV Executive
M&A Manager	BV Senior/BV Senior Executive
FF Senior/FF Senior Executive	BV Manager
FF Manager	



What does this mean for the accounting practices sector?

- There will **still be continued headcount demand** for these job roles
- Job holders will need to **pick up new skills** as the **jobs evolve** with technology and megatrends (e.g. Tax Seniors will leverage Optical Character Recognition (OCR) to scan through data to efficiently gather information instead of manually gathering information. OCR application skills will be required)
- A **small proportion** of job tasks will **change**, therefore **moderate job redesign** is required
- **Existing talent** who already possess **relevant experience and expertise** needs to be **upskilled** to new ways of working to meet the sector's needs

Low Impact Job Roles – 10 roles

Job Roles	
Audit Partner/Audit Director	FF Partner/FF Director
Tax Manager	R&I Partner/R&I Director
Tax Partner/Tax Director/Tax Vice President/Head of Tax	CS Partner/CS Director
Chief Risk Officer/Risk Partner/Head of Risk/Risk Advisory Director*	Chief Audit Executive/Head of IA
M&A Partner/M&A Director	BV Partner/BV Director



What does this mean for the accounting practices sector?

- There will **still be continued headcount demand** for these job roles
- Job holders will need to **pick up new skills** as the **jobs evolve** with technology and megatrends
- **Majority of the job tasks remain unchanged**, therefore **minimal job redesign** will be required (e.g. M&A Partner will use Analytics to complement the generation of insights and enhance diligence discussions with various parties. Analytics skills will be required)
- **Existing talent** who already possess **relevant experience and expertise** would nevertheless need to be **upskilled** to new ways of working to meet the sector's needs

* Risk Advisory represents the Enterprise Risk Management functional track in SFw for Accountancy

Key impact of trends on job roles in the accounting practices sector

Job roles and tasks will change with the rise of emerging technologies and megatrends. 3 key themes have been identified through our industry outreach with practitioners and SMEs. Click [here](#) for more details on the impact assessment for each functional track.

Practitioners will focus on advisory tasks

- Job holders will increase productivity and **focus on value creation as technology will be an enabler** to support transactional tasks. For example:
 - Intelligent Automation will assist with information scanning, perform casting of financial statements and automating standard documentations
 - AI & Analytics will enhance analysis of correlation among multiple datasets and highlight anomalous accounting entries
- In a bid to manage cost and manpower challenges, accounting practices are **outsourcing/offshoring repetitive and process-based tasks** which are of transactional in nature, such as data cleansing and lead sheet generation in audit work papers
- Both trends **will not displace jobs** but result in **job tasks evolving**. Hence, job holders need to be upskilled to perform new tasks and focus on advisory activities to enable Singapore to have a competitive edge in the region



COVID-19 has elicited transformation in ways of working and sector expectations

- COVID-19 has accelerated the pace of digitalisation in both accounting practices and clients' finance functions. This paves the way for remote working, greater access **to tap on cross-border teams** to provide advice as well as outreach to a wider client base. For example, in Assurance, work processes have been adapted to be performed virtually during COVID-19. In Financial Forensics, cross-border teams can assist with on-site investigations of simpler overseas engagements
- As clients become more open to borderless teams due to COVID-19, practitioners are expected to **leverage international network expertise** to validate insights (e.g. checks for Risk Advisory*)
- Practitioners need to be even **more adept in communicating the value** that accounting practices can bring to clients in a hybrid work environment



Broadened priorities and changing expectations of the sector

- Clients now expect accounting practices to provide a **broader scope of services**, which includes business advisory and **pre-emptive services** (e.g. Financial Forensics, Financial Accounting, Tax, Assurance)
- This requires practitioners to have a **mindset shift**, where they use technology to replace process-based tasks and **focus on complex and advisory tasks** (e.g. data interpretation and articulating insights to client)
- With the war for talent given manpower shortages due to lower birth rates and tightening of foreign manpower policies, **talent attraction and retention** have been identified to be among **the key priorities for the sector** in the next 5 years to meet sector demands. Hence, there needs to be more emphasis on uplifting sector image to attract talent



* Risk Advisory represents the Enterprise Risk Management functional track in SFw for Accountancy

Key impact of trends on skills in the accounting practices sector

SKILLS METHODOLOGY

A deep dive was conducted to understand the additional skills required for various roles in each functional track. The subsequent pages provide a consolidated view of the key additional skills required for job holders to be future-ready in the next 5 years.

THE IMPORTANCE OF BEING EQUIPPED WITH ADDITIONAL SKILLS

Industry practitioners have continuously emphasised the importance of honing technology skills across all functional tracks as accounting practices pivot towards providing data-driven insights, by interpreting analysis provided by technology tools. In addition, in light of the hybrid work environment elicited by COVID-19 trends, being able to effectively communicate with clients both virtually and physically to articulate insights to clients is important.

THE NEED TO UPSKILL IN TECHNOLOGY SKILLS



To enhance collaboration between humans and machines, there is a need for high technology quotient as technology tools are leveraged in accounting practices. Practitioners need to understand these new technologies, quickly ramp up on using these tools, manage deliverables and interpret insights from the data.

Both leaders and managers need to adopt technology leadership in identifying the latest technology trends and suitable use cases in operations for continuous improvement.

A GROWING EMPHASIS ON SOFT SKILLS



As remote working becomes more prevalent in a post-COVID-19 world, practitioners are required to adopt an agile mindset to adapt to changing work processes during the COVID-19 period yet adhere to regulations. Teaming in a remote work environment and keeping close to clients' needs are key skills to hone to continue driving business growth. With the move from face-to-face to virtual client engagements, practitioners need to hone communication skills to effectively engage clients and be cognisant of their needs. To do so, practitioners need to connect with clients regularly to provide insights using existing data. This requires a strong grasp of soft skills such as critical thinking, strong communication and client management skills in a virtual setting.

ADOPTING A GROWTH MINDSET FOR CONTINUOUS LEARNING



With ongoing changes in the accounting practices sector, practitioners need to embrace change and have a growth mindset to remain relevant. They need to be agile, flexible and resilient as they pick up knowledge on using technology tools to manage new tasks.

Practitioners need to understand that they need to play a proactive role in the pursuit of continuous upskilling to be ready for the future workforce.

Click [here](#) for details of additional skills required for each functional track

Jobs and skills impact analysis

Impact assessment for each functional track

1. [Assurance](#)
2. [Tax](#)
3. [Financial Accounting](#)
4. [Risk Advisory*](#)
5. [Mergers and Acquisitions](#)
6. [Financial Forensics](#)
7. [Restructuring and Insolvency](#)
8. [Corporate Secretarial](#)
9. [Internal Audit](#)
10. [Business Valuation](#)

* Risk Advisory represents the Enterprise Risk Management functional track in SFw for Accountancy

A guide on how to read the impact assessment for each functional track (1/2)



COMPONENTS WITHIN THE IMPACT ASSESSMENT

For “High” impact job roles, mobility dashboards have been developed. Click [here](#) for more details.

Technology trends impacting the functional track

Intelligent Automation will automate transactional job tasks

- These tasks include digitally populating taxpayers’ returns, performing formula-based basic tax computational work, extracting information and performing real-time reporting for clients

AI & Analytics will crawl through past datasets to provide insights for clients

- AI & Analytics are in early stages of adoption and there is a need to accumulate more information to enable the AI to learn and determine tax treatments
- Hence, greater efficacy of AI to practitioners may only be reaped by the industry in the next 2 to 5 years

Managerial levels and above, are required to upskill in Cloud Computing and Cybersecurity for greater coverage of risk management

- Cloud Computing facilitates greater team efficiencies by enabling real-time access to clients’ information
- Cybersecurity remains imperative in safeguarding clients’ information on cloud systems

There is a need for senior roles to understand emerging technologies

- Technology will propel Tax practices to greater heights, expand service offerings, and enable cost savings to set strategic direction

Technology trends impacting the functional track

- List the technology trends (out of 5) that are more relevant to the functional track
- This provides a detailed explanation of how the trends have impacted the job roles within the functional track

Megatrends impacting the functional track

Key workforce challenges are high attrition and difficulty in attracting high-quality local talent

- There is a preconceived notion that the nature of tasks is laborious compared to other functional tracks within the accounting practices sector. Hence, there is a lack of interest in building a career in Tax
- To attract the younger local workforce, the sector can increase awareness on the diversity of work performed in various Tax specialisations through training and industry sharing

Changing demands from clients towards more tax advisory engagements

- There is a demand for practitioners to play a more pre-emptive role, detecting potential issues and working more collaboratively with clients to provide advice prior to submission to IRAS
- Tax practices need to train the workforce in developing critical thinking, analysing clients’ business models, and building technical and communication skills to articulate insightful advice to clients

Offshoring transactional and repetitive tasks such as tax filing, tax returns and computational work is the trend going forward

- Tax practices should not fully offshore tasks required of junior roles as they need to be exposed to on-the-job cases to hone basic technical skills in performing tax computations and to identify tax issues in future

Larger clients who are keen to streamline their tax functions will look towards accounting practices to absorb these talent

- With talent shortage within the sector, Tax practices can expand their talent supply sources and consider in-house tax practitioners to meet their workforce demands

Megatrends impacting the functional track

- Lists the megatrends (out of 4) that are more relevant to the functional track
- This provides a detailed explanation of how the trends have impacted the job roles within the functional track

*Time horizon of impact is independent across the degree of change in job tasks

A guide on how to read the impact assessment for each functional track (2/2)



COMPONENTS WITHIN THE IMPACT ASSESSMENT

For “High” impact job roles, mobility dashboards have been developed. Click [here](#) for more details.

Additional skills required

- Skills that job holders in this functional track need to develop over the next 5 years, in addition to technical skills

Additional skills* required...

- Decision Making
- Data Analysis and Interpretation
- Risk Management
- Robotics and Automation Application
- Sense Making
- Transdisciplinary Thinking

Impact level of jobs...

Audit Associate/Audit Assistant Associate:	H
Audit Senior:	M
Audit Manager:	M
Audit Partner/Audit Director:	L

Impact level of jobs

- Provides a consolidated view of impact across the different job roles, within the functional track

Note
High: **major** job redesign required
Medium: **moderate** job redesign required
Low: **minimal** job redesign required

The future of Assurance...

- Technology and megatrends have led to rapid changes within Assurance practices. Hence, accounting practices need to focus on innovation to manage the impact of these changes
- As audit is a regulatory requirement for corporations, Assurance practices are likely to experience continuous growth. Practitioners will continue working with clients to navigate the new changes in Accounting standards and complex business environment
- As Assurance practices account for the largest workforce contribution in the accounting practices sector, there is potential to recruit a larger pool of local talent though it is important to recognise challenges in attracting and retaining talent. Talent with multi-disciplinary skills such as data analytics and interpretation, tax and valuation skills will be in demand
- While there have been government initiatives such as [WSG Career Matching Services](#) to attract local talent into the Assurance workforce, accounting practices are still facing challenges in hiring talent
- There is potential for mid-career talent especially those with IT background to join Assurance practices with the increasing use of technology in Assurance processes. However, as this is a highly regulated industry, it is important to recognise that a re-leveling in career level may be required

The future of functional track

- Provides an overview of the overall impact of emerging technologies and megatrends on the functional track
- Highlights potential talent supply sources and the outlook of the sector

[Click here for more details in the job dashboard](#)

*Time horizon of impact is independent across the degree of change in job tasks

Technology trends impacting the functional track

Use of Intelligent Automation to assist mundane and transactional audit work processes

- Practitioners can **focus on advisory tasks** such as interpreting data and providing advice to clients

Cloud Computing has increased team efficiencies

- Accounting practices are able to access clients' Enterprise Resource Planning (ERP) systems* and **see real-time updates**. In the future, there is a possibility of including audit tools within clients' ERP systems for **continuous audit** to avoid the peak period crunch

Leverage Artificial Intelligence (AI) & Analytics to identify anomalies and provide insights

- It is now possible to scan through large datasets with **speed** and **greater accuracy**
- In the **next 2 to 5 years**, AI & Analytics will have a **greater impact** as more data are put through to learn and produce more accurate and insightful analyses

Lack of confidence to purely rely on technology to replace audit work processes due to audit regulations

- Practitioners shared that majority of the audit work-processes will **likely remain unchanged for now** despite increasing emphasis to use technology to improve audit efficiency as **audit regulations play an important role** in Assurance practices

Megatrends impacting the functional track

High attrition and difficulty in attracting high-quality local talent continue to be key challenges for Assurance practices

- The nature of work and its long working hours are key contributors to this workforce challenge
- SMPs face a greater challenge in attracting local talent and are tapping on **foreign talent** to meet their workforce demands. Hence, **initiatives** need to be introduced to **attract local talent** to join Assurance practices

COVID-19 and remote working have accelerated digital and offshoring endeavours

- Accounting practices can now **explore offshoring transactional and mundane tasks**, enabling practitioners to focus on advisory activities. They can also **tap on overseas network firms to leverage their expertise for more complex engagements**

Clients now expect practitioners to provide business insights, advisory services and keep abreast of new changes in accounting standards

- Accounting practices are **supporting their workforce by providing regular training**, to equip their practitioners with the required technical skills to perform audit work processes and advise clients in line with the new accounting standards

Institutes of Higher Learning (IHLs) can collaborate with accounting practices to provide graduates with more hands-on experience and better prepare them to be work-ready

- IHLs could consider collaborating with accounting practices to offer a longer internship stint during audit peak periods. This allows students to gain more hands-on experience while supporting the organisation's resourcing needs during the crunch period

*Enterprise Resource Planning (ERP) systems refer to a type of software that organisations use to manage day-to-day business activities such as accounting, procurement, project management, risk management and compliance, and supply chain operations.

Insights from our industry outreach – Assurance (2/2)

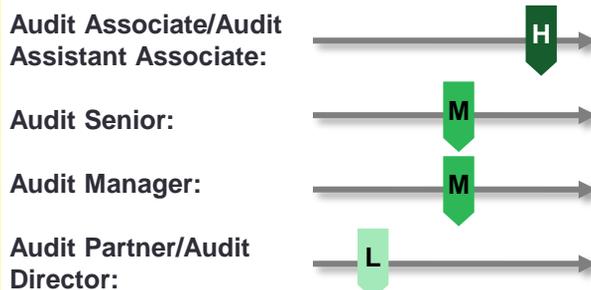


Additional skills* required...

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- Robotics and Automation Application
- Sense Making
- Transdisciplinary Thinking



Impact level of jobs...



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- As Assurance practices account for the largest workforce contribution in the accounting practices sector, there is **potential** to recruit a **larger pool of local talent though it is important to recognise challenges in attracting and retaining talent**. Talent with **multi-disciplinary skills** such as data analytics and interpretation, tax and valuation skills will be **in demand**
- While there have been **government initiatives** such as [WSG Career Matching Services](#) to attract local talent into the Assurance workforce, accounting practices are still **facing challenges in hiring talent**
- There is **potential** for **mid-career talent especially those with IT background** to join Assurance practices with the **increasing use of technology in Assurance processes**. However, as this is a **highly regulated industry**, it is important to recognise that a **re-leveling in career level may be required**

[Click here for more details in the job dashboard](#)

*Note: The list of skills is in addition to the technical skills required for this functional track

Technology trends impacting the functional track

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- Technology will propel Tax practices to greater heights, **expand service offerings**, and enable **cost savings to set strategic direction**

Megatrends impacting the functional track

Key workforce challenges are high attrition and difficulty in attracting high-quality local talent

- There is a **preconceived notion** that the nature of tasks is laborious compared to other functional tracks within the accounting practices sector. Hence, there is a lack of interest in building a career in Tax
- To attract the younger local workforce, the sector can **increase awareness on the diversity of work performed** in various Tax specialisations through training and industry sharing

Changing demands from clients towards more tax advisory engagements

- There is a demand for practitioners to play a more **pre-emptive role, detecting potential issues** and working more collaboratively with clients to provide advice prior to submission to IRAS
- Tax practices need to train the workforce in developing **critical thinking, analysing clients' business models, and building technical and communication skills** to articulate insightful advice to clients

Offshoring transactional and repetitive tasks such as tax filing, tax returns and computational work is the trend going forward

- Tax practices **should not fully offshore** tasks required of junior roles as they need to be exposed to on-the-job cases to **hone basic technical skills** in performing tax computations and to **identify tax issues** in future

Larger clients who are keen to streamline their tax functions will look towards accounting practices to absorb these talent

- With talent shortage within the sector, Tax practices can expand their talent supply sources and consider in-house tax practitioners to meet their workforce demands

Insights from our industry outreach – Tax (2/2)

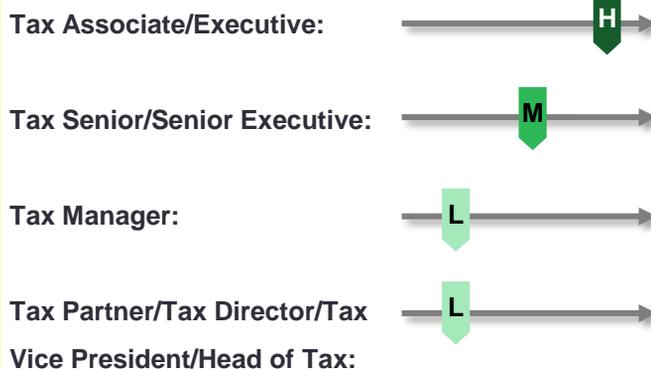


Additional skills* required...

- Artificial Intelligence Application
- Data Analysis and Interpretation
- Tax Implications
- Project Management
- Robotics and Automation Application
- Environmental Sustainability Management



Impact level of jobs...



The future of Tax...

- Tax practices will experience **accelerated growth** in the **long-term** as **constant changes in tax regulations** and the **economic environment** creates opportunities for accounting practices to **expand their service offerings**. They will need to provide advice on tax treatments in relation to changing regulations (e.g. practitioners specialising in immigration tax matters will pivot from applying for passes to advising clients on changing immigration regulations and restrictions)
- In light of increasing global connectivity and transactions, **growth areas** in Tax practices include **transfer pricing, international tax and tax governance**. IHLs should **expand their curriculum** to include international tax knowledge as most IHLs curriculum **focus predominantly on Singapore tax**
- Although transactional tasks are being offshored or automated by technology, Tax practices will still need to continue hiring fresh graduates and their focus will shift to **performing advisory work**, which creates greater job satisfaction and helps in **retaining local junior staff**
- There is **potential** for **mid-career talent with IT or engineering background** to join Tax practices, with the latter assisting clients in analysing R&D projects to assess tax deductions. However, as tax is a highly regulated industry, it is important to recognise that a **re-levelling in career level may be required**
- Talent with **multi-disciplinary skills** (i.e. understanding tax, sustainability tax requirements and emerging technologies) and the ability to connect the dots between **technology, tax and the client's business model**) will be **in demand**

[Click here for more details in the job dashboard](#)

*Note: The list of skills is in addition to the technical skills required for this functional track

Insights from our industry outreach – Financial Accounting (1/2)

Technology trends impacting the functional track

Artificial Intelligence (AI), Analytics and Intelligent Automation have the biggest impact on Financial Accounting tasks

- These emerging technologies **automate transactional tasks** such as automating data entries, retrievals and accounts payables and receivables processes, enabling resourcing efficiencies and reduced manpower costs

Cloud Computing facilitates greater collaboration between clients and accounting practitioners as well as greater team efficiencies

- Documents are uploaded **real-time** and clients are able to perform more tasks such as digital filing, enabling practitioners to shift their focus to performing general ledger and taxation-related tasks

Cybersecurity will become increasingly important in the next 3 years

- With the increasing use of emerging technologies, Cybersecurity will be a key element in Financial Accounting practices as more considerations need to be in place to **ensure that clients' information is safeguarded**

There are ongoing efforts by the government and professional bodies to support accounting practices in digitalisation

- Grants and initiatives have been introduced to support accounting practices in their digitalisation journey. Such initiatives have been efficacious in **enabling practitioners to increase efficiencies** and shift their focus to analysis and advisory tasks

Megatrends impacting the functional track

There are increasing expectations for practitioners to focus on analyses and insights

- Technology will enable practitioners to shift their focus towards **advisory tasks** such as performing financial statement analyses and providing business insights to clients. Such shift will also result in higher job satisfaction, thus, may support talent retention efforts
- Clients are expecting accounting practices to **offer a wider range of services** such as recommendations to improve existing operating processes, in addition to accounts consolidation and month-end closing services

Clients are increasingly outsourcing their finance functions to accounting practices as part of their Business Continuity Plans (BCP)

- With remote working being a norm due to COVID-19, clients have started to **re-evaluate** if there is a need to have a full-fledged in-house finance function within their organisation and have **explored possibilities to outsource part of their finance functions** to accounting practices. Clients will be expecting a higher quality of deliverables from accounting practices as compared to their in-house teams

Cross-functional collaboration between accounting practices and technology providers have been observed

- Accounting practices have been collaborating with technology providers (e.g. Xero) to build and improve accounting software, enabling greater job efficiency for practitioners

Re-position Financial Accounting practices with advisory elements to attract local talent

- It is necessary to articulate to local talent how Financial Accounting practices are evolving where technology will automate transactional tasks and practitioners need to focus on building advisory skills, in addition to their core accounting knowledge

Insights from our industry outreach – Financial Accounting (2/2)

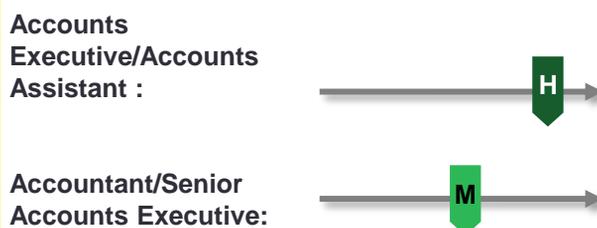


Additional skills* required...

- Artificial Intelligence Application
- Cloud Computing Application
- Customer Orientation
- Process Improvement
- Robotics and Automation Application



Impact level of jobs...



The future of Financial Accounting...

- There **will still be demand** for Financial Accounting services, especially with COVID-19 and remote working, which have resulted in **clients exploring the possibility of outsourcing their finance functions**, as part of their BCP. Given that technology may take over some of the current repetitive and mundane tasks in the future, practitioners need to stay abreast of the **new accounting standards** and be equipped with **technology management and data interpretation skills**
- While mid-careerists can upskill in accounting knowledge to take on Financial Accounting roles, nonetheless, industry practitioners shared that Financial Accounting practices are **less inclined to hire beyond the accounting practices sector** as there is a relatively **large skills gap to bridge**, and mid-careerists may **lack experience and institutional knowledge to handle accounting issues**
- **Growth areas** in Financial Accounting practices include **providing business advice** from financial statement analyses and **reporting on non-financial areas** such as ESG and long-term value creation
- Professional bodies and government agencies can **work together with IHLs to introduce technology-related courses in curriculums**, enabling talent to better **interpret deliverables from technology**

[Click here for more details in the job dashboard](#)

*Note: The list of skills is in addition to the technical skills required for this functional track

Technology trends impacting the functional track

Artificial Intelligence (AI) and Data Analytics will support practitioners to detect, evaluate and prevent risks

- Behavioural science will support data analytics tools by tracking, collecting, and assessing user data and activities to **understand interactions and dynamics** between different individuals or entities, thus identifying and preventing risks
- This enables practitioners to use a **data-driven approach** to make more **informed decisions**. In addition, practitioners need to be **aware and assess the associated risks** of using these technologies

The use of Cloud Computing will streamline information sharing with clients

- This facilitates easier information sharing with clients. However, practitioners must remain mindful of the **cybersecurity risks** involved

Practitioners can leverage Intelligent Automation to monitor external emerging risks

- Intelligent Automation can collect and scan external data to **monitor external emerging risks** such as COVID-19 and Suez Canal blockage¹ that cause business model and supply chain disruptions

Megatrends impacting the functional track

Risk Advisory* is seen as a performance enabler, especially during the technology implementation phase

- Hence, practitioners are usually involved during the pre-implementation phase to **support the pre-emption of risks**

New risks are emerging and practitioners are expected to identify, evaluate and manage these risks

- The increasing use of new technologies and rapidly changing market dynamics will result in a **widening scope of work** for Risk Advisory* practices. Hence, practitioners need to keep abreast of these new trends to cope with the new areas of work

Practitioners need to be mindful of Environmental, Social and Governance (ESG) as a new area

- As ESG is increasingly discussed worldwide, practitioners need to **build knowledge and increase awareness** of regulations in this area

Clients expect practitioners to leverage international best practices from their foreign counterparts as remote working becomes the norm

- COVID-19 has resulted in clients being more open to **remote working and borderless teams**. Hence, clients are expecting accounting practices to leverage their international experts based in foreign entities to **provide advisory support**

The possibility of offshoring the Risk Advisory* function is low due to the nature of activities

- Risk Advisory* is a **high-touch function** where it often requires **interaction with senior stakeholders**. In addition, the **knowledge of local regulations and environment** are essential to perform engagements

* Risk Advisory represents the Enterprise Risk Management functional track in SFw for Accountancy

¹ In March 2021, the Suez Canal which is one of the world's busiest trade routes was blocked by a large container ship for six days. This had a negative impact on trade between Europe, Asia and the Middle East. Many vessels were diverted on a week-long detour around Africa and this has resulted in greater supply chain risks due to the disruption of global trade, increased shipping rates and a rise in global inflation

Insights from our industry outreach – Risk Advisory** (2/2)

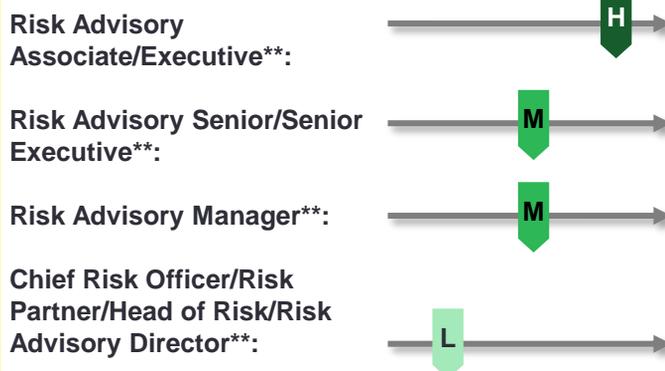


Additional skills* required...

- Business Acumen
- Creative Thinking
- Customer Orientation
- Design Thinking Practice
- Digital Fluency
- Global Perspective



Impact level of jobs...



The future of Risk Advisory**...

- As more **clients start embarking on their digitalisation journey**, there will be an increasing demand for Risk Advisory** practitioners to assess risks at the pre-implementation phase. Hence, Risk Advisory** practices are likely to experience **accelerated growth**, especially when there is greater awareness of Risk Advisory** amongst clients with the increasing number of Chief Risk Officer (in-house) roles
- Practitioners need to start **“thinking out of the box”** as new risks emerge in the rapidly changing business environment
- Risk Advisory** practices are interested to hire **mid-career professionals** who have **subject matter expertise**, depending on the **needs of the engagement**. Hence, there is potential for **mid-career engineers and economists** to join Risk Advisory** practices. However, these individuals may experience challenges when moving to the accounting practices sector and a **re-levelling in career level may be required**
- IHLs may need to change their curriculum and adapt to sector demands in order to nurture talent with good critical skills and diverse knowledge
- Currently, organisations are increasingly making decisions according to **Environmental, Social, and Governance (ESG)** principles

[Click here for more details in the job dashboard](#)

*Note: The list of skills is in addition to the technical skills required for this functional track

** Risk Advisory represents the Enterprise Risk Management functional track in SFw for Accountancy

Insights from our industry outreach – Mergers and Acquisitions (1/2)

Technology trends impacting the functional track

The impact of technology trends on accounting practices depends on their clients' digital maturity

- Accounting practices need to **assess their clients' digital maturity** as they will have different expectations, and **determine what technology can be leveraged to deliver deliverables more efficiently**

Analytics is one of the emerging technologies that will be more relevant to M&A practices

- As M&A activities are usually customised and personalised to the specific deal, Analytics can be leveraged to support M&A practices in **providing more analyses and insights**

Driving the digital transformation agenda may not be a priority for many leaders and there is a demand for talent who are able to interpret data

- Practitioners highlighted that many leaders are resistant to change. Hence, **driving the digital transformation agenda is not their priority**. Moving forward, there will be growing **demand for talent** who are able to **interpret data**

Cloud Computing will increase the collaborative efficiency in teams and there will be increasing emphasis on cybersecurity

- As organisations start moving their businesses to the cloud, there is **increasing emphasis on cybersecurity** to ensure that the **right measures** are in place to **safeguard information**

Megatrends impacting the functional track

Accounting practices need to learn how to account for ESG considerations to assess business practices

- The second generation of investors are placing more emphasis on Environmental, Social and Governance (ESG) as they believe this is the **true value of their business**. However, there is a **lack of clarity in evaluating the ESG value of a firm today**. Hence, accounting practices need to place more emphasis on this area

The likelihood and impact of outsourcing, offshoring or nearshoring are low

- As clients become more receptive to remote working due to COVID-19, outsourcing, offshoring and nearshoring are now possible options and have enabled access to a cheaper global workforce. However, the **likelihood and impact** of accounting practices outsourcing, offshoring or nearshoring M&A activities are **low** as the **nature of work** requires **talent** who are **familiar with local culture, regulations and environment**

Continuous growth is expected for M&A practices despite lesser demand for M&A services requested by clients now, as they continue to observe the economic situation

- The demand for M&A services is very much dependent on the economic situation. With the pandemic resulting in some market uncertainties, some clients are apprehensive to engage in M&A deals. Nevertheless, practitioners continue to see this as a growth area moving forward

Talent attraction and retention continue to be key workforce challenges

- Practitioners observed that talent typically want to explore different types of work and their tenure generally does not exceed more than four years. Hence, it is important to **understand the needs of today's workforce**, have the **right measures in place to engage them**, and **strengthen talent attraction and retention efforts**

Insights from our industry outreach – Mergers and Acquisitions (2/2)

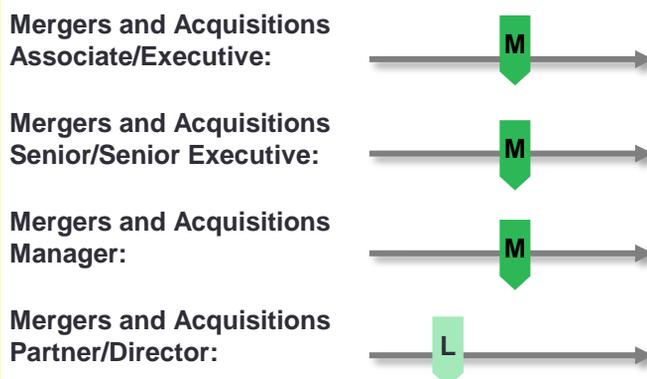


Additional skills* required...

- Adaptability
- Big Data Analytics
- Creative Thinking
- Customer Orientation
- Data Analysis and Interpretation
- Decision Making
- Learning Agility
- Programming And Coding
- Sense Making



Impact level of jobs...



The future of Mergers and Acquisitions...

- As organisations today are **more receptive to collaborate with other organisations to drive synergies**, this can result in **more M&A opportunities**. However, **slow growth** may be expected **due to the ongoing pandemic**. When the market recovers, there will be **strong demand for talent** who can **interpret data** and is **well-versed in emerging technologies** and **ESG** concepts
- Practitioners recognise that **technology can bring about more regional and global opportunities** as deals can still proceed without physical travelling to sites. However, practitioners highlighted that physical presence is still important to speed up the processes when engaging in M&A activities. Practitioners **foresee clients will continue to engage Singapore-based accounting practices for M&A activities** as there is **trust in the quality of deliverables**. Hence, there will still be a **demand for M&A practitioners in Singapore**
- There is **potential for mid-career auditors** to join M&A practices. However, it is important to recognise a **re-leveling in career level may be required**

[Click here for more details in the job dashboard](#)

*Note: The list of skills is in addition to the technical skills required for this functional track

Technology trends impacting the functional track

Artificial Intelligence (AI) & Analytics will be key trends impacting Financial Forensics practices

- AI & Analytics will help practitioners scan through a large volume of transactions to **detect anomalies in real-time and at speed**. This enables practitioners to **focus on investigating the abnormalities** instead
- In the future, AI & Analytics may be **leveraged for pre-emptive investigations** (e.g. use of predictive analytics to pre-empt possible crimes)

Practitioners face challenges in performing digital investigations with the rapid growth of Cloud Computing

- Due to a lack of control and knowledge of the exact physical location of data, practitioners face **challenges in performing digital investigations** and thus hinder data collection. Hence, practitioners need to start **understanding the internal processes, infrastructure and system components** of their clients' Cloud Computing systems

Talent with accounting and cybersecurity skills will be in demand to protect the information stored in the cloud

- The risk of information loss is higher with documents being uploaded to the cloud. Today, practitioners often partner with cybersecurity teams in their organisations to ensure that the information in the cloud is protected. Moving forward, talent who **possess accounting and cybersecurity skills** will be **highly valued**

Megatrends impacting the functional track

Clients are shifting their demand towards pre-emptive forensics services

- Today, reactive services continue to be the key focus for Financial Forensics practices. However, as clients shift their demand towards preventive services, there will be an **increasing need** for talent who possess **skills to conduct both reactive and pre-emptive investigations**

The likelihood of outsourcing or offshoring key activities is low as investigative skills are crucial

- The **nature of work** in Financial Forensics **requires physical presence** at client sites to conduct investigations. The **closing of borders** due to COVID-19 may have **enabled practitioners to work remotely on simple overseas engagements**. However, organisations often have to **leverage their global counterparts** to be **physically present** at client sites to inspect documents and conduct interviews

Growing demand for talent who possess both accounting and technology skills

- The use of technology will change the business processes of their clients and fraud attacks will become more sophisticated, resulting in the **rise of digital fraud**. Hence, there will be growing demand for talent who possess both accounting and technology skills to uncover fraud. Today, it is **difficult to find talent** who possess these **hybrid skills** and there is a trend of financial forensics practitioners picking up data science skills in IHLs

The talent pool for Financial Forensics practices typically comes from Assurance practices

- Within Financial Forensics practices, it is not a common practice to hire fresh graduates. The **talent pool typically comes with 1 to 2 years of Assurance experience**. Talents typically are attracted to the diversity of activities performed in Financial Forensics practices

Insights from our industry outreach – Financial Forensics (2/2)

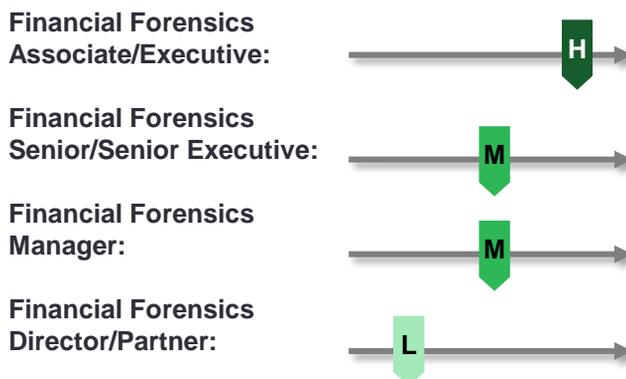


Additional skills* required...

- Behavioural Analysis and Predictive Screening
- Data Analytics
- Decision Making
- Fraud Risk Management
- Machine Learning
- Security Threat Research
- Transdisciplinary Thinking



Impact level of jobs...



The future of Financial Forensics...

- Financial Forensics practices will **continue to experience accelerated growth in the upcoming years** as **emerging technologies will create new categories of financial crimes**. Furthermore, an **increasingly complex regulatory environment will demand more experienced forensic accounting practitioners** to help organisations mitigate risks
- As Singapore develops into a centre of excellence for Financial Forensics, it is necessary for our skilled workforce to be **agile in picking up technological knowledge** (e.g. Analytics, Cybersecurity) **with speed** to build our global talent competitiveness. Hence, **to prepare our young talent for the future workforce**, it is important to **expose them to technological knowledge when they are young** (e.g. impart technological knowledge in today's education curriculum)
- In the **next 5 to 10 years**, roles in Financial Forensics are expected to **converge** where talent who possess **both accounting and technology skills** (e.g. Data Analytics, Cybersecurity) will be in **demand**. New roles such as **Ethical Hackers** will also emerge, to meet the changing needs of Financial Forensics practices
- There is **potential** for **mid-career talent with assurance, law, law enforcement or commercial crime investigation experience** to join Financial Forensics practices. However, it is important to recognise a **re-levelling in career level may be required**

[Click here for more details in the job dashboard](#)

*Note: The list of skills is in addition to the technical skills required for this functional track

Insights from our industry outreach – Restructuring and Insolvency (1/2)

Technology trends impacting the functional track

R&I practitioners are not early adopters of emerging technologies

- Adoption **depends on the technology maturity of their clients**. Very often, practitioners are working with distressed clients and technology adoption is not their priority

However, emerging technologies will enable work to be performed more efficiently

- Practitioners recognise the benefits of technology and see them as enablers to support existing processes. However, it **will not replace key tasks in R&I activities**
- Practitioners at more senior levels (e.g. **Manager and above**) **play an important role to drive** technology adoption in their organisation and will need to develop plans to mitigate the risks related to digital infrastructure (e.g. Cybersecurity)

Analytics and Intelligent Automation will support information gathering processes

- It will minimise the need for manual calculation of financial ratios
- Practitioners will need to focus on validating outputs and interpreting the information and drawing insights

Cloud Computing will increase the collaborative efficiency in teams

Megatrends impacting the functional track

Clients today expect outcomes to be delivered faster and anticipate more sharing of analyses and insights

- Accounting practices are challenged to re-look at their resourcing model to **balance between operational cost and benefit of possessing internal domain knowledge** (e.g. repetitive tasks are outsourced to lower-cost countries with oversight from local teams)
- Talent now need to **focus on advisory activities** to meet changing clients' needs

R&I practitioners with local knowledge will still be required and they need to stay abreast of relevant local laws and regulations

- Hence, the **likelihood of outsourcing/offshoring** a huge proportion of R&I activities **or bringing in talent with no local context is low**
- Practitioners need to learn how to better **interact and engage clients digitally** with the shift towards remote working and virtual meetings due to COVID-19

The loosening of regulations for Mergers and Acquisitions (M&A) activities post-pandemic will lead to increased business volume. As such, there will be more demand for R&I practitioners

- Recruitment of fresh graduates in R&I practices is on a needs basis. Hence, the accounting practices sector **partners with IHLs to create more awareness** for R&I (e.g. offering R&I module to Accountancy and Law students in SMU)
- Talent retention is a key workforce challenge** as the working hours in R&I practices are project-driven and the younger talent today have different priorities at work. Hence, organisations need to **explore ways to engage the workforce** (e.g. learning opportunities and focus on delivering advisory tasks)

Insights from our industry outreach – Restructuring and Insolvency (2/2)

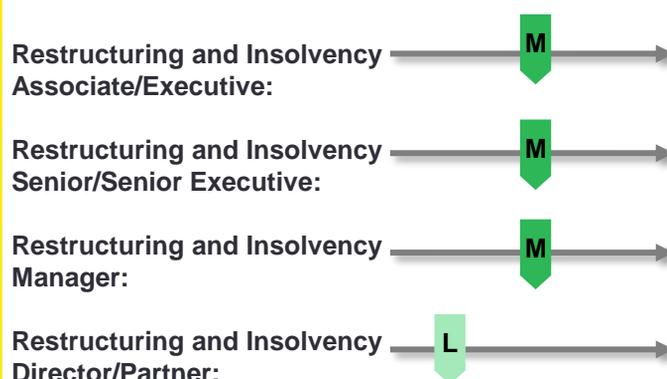


Additional skills* required...

- Adaptability
- Capital Expenditure and Investment Evaluation
- Customer Orientation
- Digital Fluency
- Global Perspective
- Macroeconomic Analysis
- Organisational Analysis
- Transdisciplinary Thinking



Impact level of jobs...



The future of Restructuring and Insolvency...

- With existing governmental efforts to **develop Singapore** as a **restructuring hub**, **continuous growth is expected** in R&I practices within the **next 5 years** as there is potential for large organisations outside Singapore to tap on Singapore for R&I opportunities
- As R&I is **highly dependent on legal requirements** (e.g. Companies Act), the **demand for R&I practitioners with local knowledge of laws and regulations** will continue to **increase**
- There is **potential** for **mid-career lawyers** to **take up accountancy courses** and join R&I practices. However, it is important to recognise that oftentimes, a **re-leveling in career level is required**
- Due to **changing client expectations**, employers are increasingly demanding a **multi-disciplinary workforce** (e.g. knowledge in law, data analytics, python scripting skills, etc.)

[Click here for more details in the job dashboard](#)

*Note: The list of skills is in addition to the technical skills required for this functional track

Insights from our industry outreach – Corporate Secretarial (1/2)

Technology trends impacting the functional track

Corporate Secretarial practices have not fully embraced emerging technologies

- Industry players highlighted that there is an opportunity for Corporate Secretarial practices to increase the use of technology tools to streamline work processes and facilitate business growth

Accounting and Corporate Regulatory Authority (ACRA) and Inland Revenue Authority of Singapore (IRAS) have co-created a digital solution for seamless filing of annual returns and financial statements, in line with the government's Smart Nation initiative

Technology is most beneficial to clients with several entities or subsidiaries in different geographical locations

- Video conferencing and electronic voting, enable the **digitalisation of board meetings**
- **Cloud Computing** facilitates the sharing and referencing to documents
- As the nature of board discussions are typically confidential, practitioners are concerned about the increasing use of Cloud Computing and its **cybersecurity risks**

There are also opportunities to automate a significant proportion of tasks

- Practitioners will be able to focus on **advisory tasks** (e.g. defining rules for Intelligent Automation systems and reviewing the automation outcomes)

Megatrends impacting the functional track

Corporate Secretarial practices are facing challenges with talent attraction and retention

- In Singapore, there is limited awareness of the Corporate Secretarial career as compared to the European countries
- In addition, the younger generation today **do not stay in Corporate Secretarial practices after a few years** and this creates an additional challenge for talent retention

Heavy reliance on non-locals for Corporate Secretarial roles in Singapore and offshoring is not a preferred option for accounting practices

- There is heavy reliance on non-local talent who come from neighbouring countries (e.g. Malaysia) where Corporate Secretarial curriculum is taught in universities. Despite the closing of borders, industry players were still able to rely on the foreign workforce residing in Singapore to perform the work
- As the ACRA system can only be accessed by Singapore residents due to the confidentiality of certain information, some tasks performed by the Corporate Secretarial staff cannot be offshored. In instances where tasks are offshored, industry players noted challenges in **finding a suitable partner abroad to perform the work**

Corporate Secretarial staff are shifting from an administrative to an advisory role in Singapore

- They are seen as **regulatory and compliance experts** and are expected to help the Board navigate through the new changes and challenges such as emerging technologies, ESG, and COVID-19
- With continuous changes in the market dynamics and a more complex regulatory environment, practitioners need to stay abreast of trends to advise clients accordingly

Insights from our industry outreach – Corporate Secretarial (2/2)

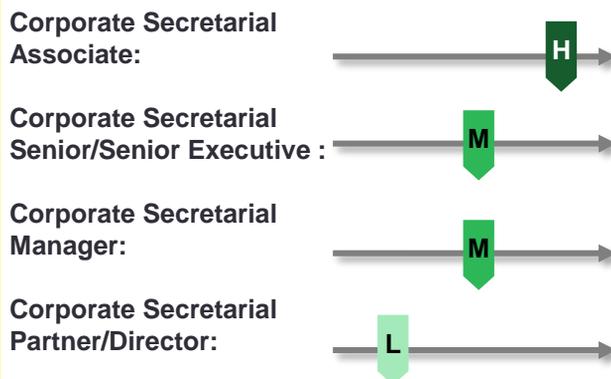


Additional skills* required...

- Adaptability
- Customer Orientation
- Digital Fluency
- Problem Solving
- Risk Management
- Report Writing



Impact level of jobs...



The future of Corporate Secretarial...

- Due to Singapore's economic and political stability, organisations are likely to continue incorporating their regional hubs in Singapore. As Corporate Secretarial practitioners are usually engaged to provide advice regarding company incorporation matters in Singapore, practitioners expect Corporate Secretarial practices to experience **continuous growth**
- Practitioners need to have a **mindset shift** and **adopt technology tools** to help them **improve productivity**. In addition, practitioners need to recognise that the Corporate Secretarial landscape is changing where there is more emphasis on **value creation to clients**. Hence, practitioners need to focus on **providing advisory services across different industries to address clients' needs**, which is a common offering in Europe and North America
- Corporate Secretarial practices are facing a **labour shortage** as there is **limited visibility** of Corporate Secretarial career pathways. There are also **limited courses offered by IHLs** to create awareness of this industry. Hence, there are **opportunities** for the industry to **collaborate with IHLs** and build a strong pool of local talent. IHLs should also **explore including in-demand skills** (e.g. use of emerging technologies) in their curriculum, to nurture a pool of future-ready talent
- Given the reliance on talent from neighbouring countries, the recent tightening of foreign manpower policies creates **an opportunity to localise the talent pool**, by hiring locals for both replacement and expansion headcount

[Click here for more details in the job dashboard](#)

*Note: The list of skills is in addition to the technical skills required for this functional track

Technology trends impacting the functional track

Smart Nation initiatives facilitate the adoption of technology for accounting practices

- Practitioners will leverage technology to enhance **human-machine collaboration** and deliver more advisory services to clients

The use of emerging technologies will require practitioners to learn and use diverse digital tools while managing its associated risks

- The **rise of digital audit** will require practitioners to use digital tools in engagements where applicable. In addition, they need to understand and manage the associated risks involved

Artificial Intelligence (AI), Analytics and Intelligent Automation will enable continuous internal audit and support risk mitigation

- Automatic controls can be integrated into operational processes and the data collected can be analysed for insights. **Practitioners will focus on advisory tasks** such as defining automation, ensuring the quality of data sourcing, and deriving the relevant actions to be taken by clients
- AI and Analytics can support risk mitigation by leveraging repetitive controls to **identify risk patterns**

Practitioners can leverage emerging technologies to monitor external emerging risks

- Emerging technologies can be used to **collect and interpret external data** to identify potential risks

Megatrends impacting the functional track

Clients expect practitioners to play the role of business partners

- Instead of performing compliance and policy checks, practitioners are now expected to provide insights and **advisory services** to clients. They support clients' performance by mitigating risks, reducing inefficiencies, and supporting the detection of fraud

Multi-disciplinary teams will be required to meet changing market needs

- Emerging technologies** and the **changing market dynamics** will result in a **diversified range of project scope**. Clients will now expect accounting practices to leverage multi-disciplinary teams to **prevent future risks** within their organisation

Environmental, Social and Governance (ESG) will be a new area where practitioners need to keep abreast of new reporting standards and regulations

- Practitioners need to **stay abreast of new regulations** in order to remain relevant. The increasing emphasis on ESG will require practitioners to upskill in this area so as to provide **advisory services to clients**

Talent attraction and retention are key workforce challenges. More efforts to increase the appeal and awareness of Internal Audit are required to attract young talents

- There is a **lack of awareness of the Internal Audit profession**, hence, accounting practices find it difficult to attract talent. In addition, the nature of internal audit roles **does not excite the younger workforce**. Hence, talent retention is increasingly difficult as a result
- At times, **clients lack visibility of the role of Internal Audit services** as the function is traditionally held in-house. Hence, accounting practices should broaden the scope of their job tasks to providing advice to clients on internal audit processes and the importance of internal audit checks

Insights from our industry outreach – Internal Audit (2/2)

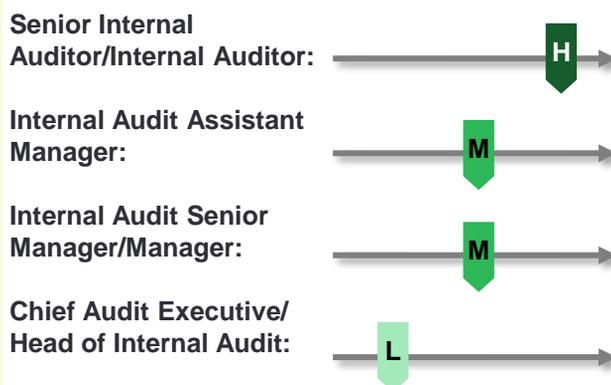


Additional skills* required...

- Creative Thinking
- Data Analytics
- Fraud Detection And Prevention
- Global Perspective
- Programming And Coding
- Transdisciplinary Thinking



Impact level of jobs...



The future of Internal Audit...

- Jobs will not be displaced and Internal Audit practices will lean towards **human and technology collaboration**
- The future of Internal Audit is likely to be combined with Risk Advisory** and will focus more on **digital audit, design control and advisory services**. As the **scope of Internal Audit is expanding and diversifying**, there is an expectation for internal auditors to play a **business partnering role to improve processes of their clients**. Hence, there will still be **continuous demand** for Internal Audit practitioners
- Internal Audit is diversifying their hiring process to include **mid-career professionals with in-depth knowledge** of the client industry or the risks faced by the client. Hence, accounting practices are starting to hire individuals from **diverse backgrounds** such as economics and engineering as they possess transferrable skills (e.g. critical thinking, communication skills to spot the relevant trends, risks, and to navigate and discuss global regulations). However, it is important to recognise a **re-levelling in career level may be required**
- **Blockchain** could be the next big disruptor for the accounting practices sector as it will enable the immutable record of all transactions without intermediaries, thus, **reducing the need to audit internal transactions**. Hence, Internal Auditors will need to rethink the value of the function when the **technology matures in the next 5 years**

[Click here for more details in the job dashboard](#)

*Note: The list of skills is in addition to the technical skills required for this functional track

** Risk Advisory represents the Enterprise Risk Management functional track in SFw for Accountancy

Technology trends impacting the functional track

Emerging technologies will act as enablers to support valuation activities and professional judgement is still required to draw insights

- **Intelligent Automation** will have the **biggest impact** on Business Valuation activities as it automatically encodes data into spreadsheets, enabling **reduction of resourcing man-hours and cost**
- Although Artificial Intelligence (AI) & Analytics may **reduce the time required** by junior staff (e.g. Associates and Senior Associates) to **extract information mechanically**, human intervention is still required

Technology will enable multiple sources of data to be captured in a single platform, resulting in more effective data sourcing

- The amount of data that practitioners can use today has increased and data is usually stored on multiple platforms. Technology such as IA and AI will enable organisations to capture these data on a **single application**, resulting in **time and cost savings**

Explore efforts with professional bodies to help accelerate digitalisation in the accounting practices sector

- ISCA can **partner with software companies** to **develop solutions** for accounting practices and such initiatives help to **accelerate digitalisation** in the sector. Business Valuation practitioners will soon be required to learn new systems to support their data extraction efforts

Megatrends impacting the functional track

Practitioners need to have a mindset shift and play the role of an advisor

- Clients today want to understand how to **add more value to their existing businesses**. Hence, practitioners need to have a **mindset shift** about their role, from being a valuer to be an **advisor, providing insights** on how clients can improve their valuations

Practitioners will soon be expected to possess hybrid skills – software and financial valuation skills

- Today, there are **ongoing initiatives with IHLs** (e.g. NTU) to **incorporate both software and financial valuation skills in their curriculum**. This is to meet the **future needs of Business Valuation practices**, where practitioners will be expected to **possess these hybrid skills**

Growing need for talent profiles who have the ESG lens

- As **Environmental, Social and Governance (ESG)** becomes an **emerging** area, Business Valuation practices need to work together with their clients to quantify business value arising from ESG initiatives

Organisations need to re-deploy their talent to practice areas facing more severe manpower shortage

- SMPs are **facing manpower shortages** as a result of tighter border restrictions due to COVID-19 and tighter salary criteria for foreign workers. Hence, they now need to explore **re-deploying their talent** to other practice areas in the organisation that are experiencing more severe manpower shortage

Insights from our industry outreach – Business Valuation (2/2)

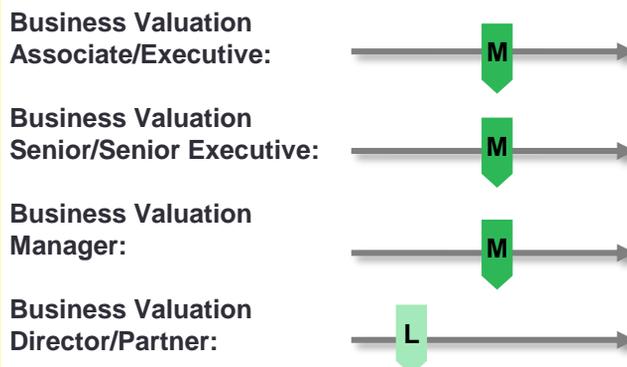


Additional skills* required...

- Capital Expenditure and Investment Evaluation
- Creative Thinking
- Data Analytics and Computational Modelling
- Organisation Evaluation For Business Excellence
- Programming and Coding
- Transdisciplinary Thinking



Impact level of jobs...



The future of Business Valuation...

- As demand for Business Valuation services is a **function of needs**, practitioners believe that this function **will continue to stay** and **accelerated growth is expected**. Talent with **hybrid skills (e.g. finance and software)** will be in **demand**
- The **increasing emphasis on sustainable investing** will result in **new roles to emerge** within the accounting practices sector (e.g. ESG specialists)
- Within the **next 2 years and beyond**, the **junior roles will be more impacted** as the **transactional and repetitive tasks** will be **replaced by technology**. Hence, practitioners need to **focus on advisory activities**
- As talent progress to **more senior job roles**, they are expected to provide **advisory services, focus on solutioning for clients and interpreting data to provide insights**
- There is **potential** for **mid-career talent with accounting, audit or due diligence background** to join Business Valuation practices. However, it is important to recognise a **re-levelling in career level may be required**

[Click here for more details in the job dashboard](#)

*Note: The list of skills is in addition to the technical skills required for this functional track

Potential career pathways in the accounting practices sector

- 5.1. Overview and rationale for highlighting potential career pathways in the sector
- 5.2. Summary of potential career pathways
- 5.3. Mobility dashboards

Potential career pathways in the accounting practices sector

- 5.1. Overview and rationale for highlighting potential career pathways in the sector
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Overview and rationale for identifying potential career pathways in the sector

Upskilling the existing workforce is the main focus as job roles will not be displaced. This chapter highlights potential career pathways within the accounting practices sector by tapping on practitioners' interest areas and transferrable skills.

- Given the diverse career options across the 10 functional tracks, there are many exciting opportunities within the sector
- This study shares how **technology and megatrends** will **change a significant proportion of job tasks** for **high impact job roles** and **major job redesign** will be required
- **High impact roles** will be provided with **mobility opportunities** anchored on **transferable skillsets** and **skills gaps to be bridged**
- As such, a **mindset shift** should be adopted as practitioners can have **more than one career** within this sector



RATIONALE FOR HIGHLIGHTING POTENTIAL CAREER PATHWAYS

- Practitioners can tap on their **interests and transferrable skillsets** and explore the **wide variety of career options** in the accounting practices sector
- Practitioners who want to **leverage existing skillsets to explore new career pathways** may refer to this [list](#). The aim is to maximise talent utilisation and retain talent **within the accounting practices sector**
- **89%** of the mobility opportunities identified for the "High" impact job roles are **within the sector**
- Retaining talent within the sector is beneficial as existing talent have **experience and tacit understanding of the business** and **sunk costs** have been incurred for their training



Methodology

- Aligned to the SFw for Accountancy
- These potential career pathways have been **identified and validated** by:
 - Practitioners during our industry outreach
 - EY Subject Matter Experts



Key considerations

- The following **factors** were taken into consideration when identifying potential career pathways for "high" impact job roles:
 - ✓ Skills transferability, skills gap and skills criticality
 - ✓ Career level
 - ✓ Qualitative Insights from industry

THE FOCUS IS ON UPSKILLING

- **Upskilling** is key for practitioners with relevant experience and expertise, as they **adopt new ways of working to meet the sector's needs and remain relevant**

Note:

Skills proficiency levels are not taken into account in this assessment as upskilling plays an imperative part in enabling job holders to be future-ready and adaptable. Successful mobility is also dependent on business needs and employees' aspirations that are not part of this assessment.

Potential career pathways in the accounting practices sector

- 5.1. Overview and rationale for highlighting potential career pathways in the sector
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Summary of potential career pathways for “High” impact job roles

The top 3 potential career pathways for each of the high impact roles have been validated by EY Subject Matter Experts (SMEs). For more details on the top 3 potential career pathways, refer to the [mobility dashboards](#) in the subsequent pages of the report.

Audit Associate/Audit Assistant Associate



- Audit Senior
- Financial Forensics Associate/Executive
- Senior Internal Auditor/Internal Auditor

Tax Associate/Executive



- Audit Associate/Audit Assistant Associate
- Compliance Advisory Executive

Accounts Executive/Accounts Assistant



- Accountant/Senior Accounts Executive
- Risk Advisory Associate/Executive*

Risk Advisory Associate/Executive*



- Risk Advisory Senior/Senior Executive*
- Senior Internal Auditor/Internal Auditor
- Financial Forensics Associate/Executive

Financial Forensics Associate/Executive



- Financial Forensics Senior/Senior Executive
- Senior Internal Auditor/Internal Auditor
- Operations Risk and Control Analyst

Corporate Secretarial Associate



- Corporate Secretarial Senior/Senior Executive
- Accounts Executive/Accounts Assistant

Senior Internal Auditor/Internal Auditor



- Internal Audit Assistant Manager
- Risk Advisory Associate/Executive*
- Accounts Executive/Accounts Assistant

Note: Accounts Executive/Accounts Assistant and Accountant/Senior Accounts Executive refer to roles in accounting practices

* Risk Advisory represents the Enterprise Risk Management functional track in SFw for Accountancy

Potential career pathways in the accounting practices sector

- 5.1. Overview and rationale for highlighting potential career pathways in the sector
- 5.2. Summary of potential career pathways
- 5.3. **Mobility dashboards**

A guide on how to navigate mobility dashboards



COMPONENTS WITHIN MOBILITY DASHBOARDS

For “High” impact job roles, mobility dashboards have been developed.
Click [here](#) for more details.

Top 3 potential career pathways identified by the industry, where practitioners can potentially move into.

ASSURANCE		
Mobility dashboard – Audit Associate / Audit Assistant Associate		
Accounting Practices Sector		
1	Audit Senior	Track: Assurance
TRANSFERABLE SKILLS		
<ul style="list-style-type: none"> Accounting Standards Auditing and Assurance Standards Auditor Independence Business Acumen Cyber Security Data Analytics Data Governance Digital Technology Environment Scanning 	<ul style="list-style-type: none"> Engagement Execution Engagement Quality Control Financial Statements Analysis Internal Controls Macroeconomic Analysis Professional and Business Ethics Professional Scepticism and Judgment 	<ul style="list-style-type: none"> Programming and Coding Project Execution and Control Risk Assessment Stakeholder Management Taxation Laws Communication Collaboration Digital Fluency
ADDITIONAL SKILLS TO DEVELOP		
<ul style="list-style-type: none"> Change Management Conflict Management 	<ul style="list-style-type: none"> Engagement Completion and Reporting Engagement Planning 	<ul style="list-style-type: none"> Engagement Review Developing People Sense Making
2	Financial Forensics Associate/Financial Forensics Executive	Track: Financial Forensics
TRANSFERABLE SKILLS		
<ul style="list-style-type: none"> Accounting Standards Cyber Security Digital Technology Environment Scanning Financial Statements Analysis 	<ul style="list-style-type: none"> Professional and Business Ethics Professional Scepticism and Judgment Programming and Coding 	<ul style="list-style-type: none"> Project Execution and Control Stakeholder Management Communication Digital Fluency Problem Solving
ADDITIONAL SKILLS TO DEVELOP		
<ul style="list-style-type: none"> Corporate and Business Law Digital Forensics Evidence Management Financial Crime Laws and Regulations 	<ul style="list-style-type: none"> Forensic Data Analytics Fraud Detection and Prevention Fraud Investigation Planning and Execution 	<ul style="list-style-type: none"> Litigation Support Regulatory Risk Assessment Sense Making
3	Senior Internal Auditor / Internal Auditor	Track: Internal Audit
TRANSFERABLE SKILLS		
<ul style="list-style-type: none"> Auditor Independence Business Acumen Cyber Security Data Analytics 	<ul style="list-style-type: none"> Financial Statements Analysis Internal Controls Professional and Business Ethics 	<ul style="list-style-type: none"> Project Execution and Control Communication Collaboration Digital Fluency
ADDITIONAL SKILLS TO DEVELOP		
<ul style="list-style-type: none"> Business Innovation and Improvement Business Process Analysis Due Professional Care Enterprise Risk Management Fraud Risk Management Governance 	<ul style="list-style-type: none"> Infocomm Security and Data Privacy Information Gathering and Analysis Internal Audit Engagement Execution 	<ul style="list-style-type: none"> Internal Audit Engagement Planning Professional Standards Risk Management Sense Making

Transferable skills are skills common to the high impact role and the mobility option roles (reference to Skills Maps from the SFw for Accountancy).

Additional skills to develop are skills differing between the high impact roles and the mobility option roles (reference to Skills Maps from the SFw for Accountancy).

Note: These additional skills can be developed through on-the-job learning and it is not compulsory to attend training courses to develop these skills.

Mobility dashboard – Audit Associate/Audit Assistant Associate

[Contents](#)
[Section Top](#)

Accounting Practices Sector

1

Audit Senior

Track: Assurance

TRANSFERABLE SKILLS

- | | | |
|---|--|--|
| <ul style="list-style-type: none"> Accounting Standards Auditing and Assurance Standards Auditor Independence Business Acumen Cyber Security Data Analytics Data Governance Digital Technology Environment Scanning | <ul style="list-style-type: none"> Engagement Execution Engagement Quality Control Financial Statements Analysis Internal Controls Macroeconomic Analysis Professional and Business Ethics Professional Scepticism and Judgment | <ul style="list-style-type: none"> Programming and Coding Project Execution and Control Risk Assessment Stakeholder Management Taxation Laws Communication Collaboration Digital Fluency |
|---|--|--|

ADDITIONAL SKILLS TO DEVELOP

- | | | |
|--|--|--|
| <ul style="list-style-type: none"> Change Management Conflict Management | <ul style="list-style-type: none"> Engagement Completion and Reporting Engagement Planning | <ul style="list-style-type: none"> Engagement Review Developing People Sense Making |
|--|--|--|

2

Financial Forensics Associate/Executive

Track: Financial Forensics

TRANSFERABLE SKILLS

- | | | |
|--|--|--|
| <ul style="list-style-type: none"> Accounting Standards Cyber Security Digital Technology Environment Scanning Financial Statements Analysis | <ul style="list-style-type: none"> Professional and Business Ethics Professional Scepticism and Judgment Programming and Coding | <ul style="list-style-type: none"> Project Execution and Control Stakeholder Management Communication Digital Fluency Problem Solving |
|--|--|--|

ADDITIONAL SKILLS TO DEVELOP

- | | | |
|--|---|--|
| <ul style="list-style-type: none"> Corporate and Business Law Digital Forensics Evidence Management Financial Crime Laws and Regulations | <ul style="list-style-type: none"> Forensic Data Analytics Fraud Detection and Prevention Fraud Investigation Planning and Execution | <ul style="list-style-type: none"> Litigation Support Regulatory Risk Assessment Sense Making |
|--|---|--|

3

Senior Internal Auditor/Internal Auditor

Track: Internal Audit

TRANSFERABLE SKILLS

- | | | |
|---|--|--|
| <ul style="list-style-type: none"> Auditor Independence Business Acumen Cyber Security Data Analytics | <ul style="list-style-type: none"> Financial Statements Analysis Internal Controls Professional and Business Ethics | <ul style="list-style-type: none"> Project Execution and Control Communication Collaboration Digital Fluency |
|---|--|--|

ADDITIONAL SKILLS TO DEVELOP

- | | | |
|--|---|---|
| <ul style="list-style-type: none"> Business Innovation and Improvement Business Process Analysis Due Professional Care Enterprise Risk Management Fraud Risk Management Governance | <ul style="list-style-type: none"> Infocomm Security and Data Privacy Information Gathering and Analysis Internal Audit Engagement Execution | <ul style="list-style-type: none"> Internal Audit Engagement Planning Professional Standards Risk Management Sense Making |
|--|---|---|

*Note: Mobility dashboards were developed for "High" impact job roles and the industry has identified the above as the top 3 potential roles practitioners can potentially move into

Mobility dashboard – Tax Associate/Executive

Accounting Practices Sector

1 Audit Associate/Audit Assistant Associate

Track: Assurance

TRANSFERABLE SKILLS

- Digital Technology
- Stakeholder Management
- Collaboration
- Environment Scanning
- Taxation Laws
- Digital Fluency
- Professional and Business Ethics
- Communication
- Problem Solving

ADDITIONAL SKILLS TO DEVELOP

- Accounting Standards
- Engagement Execution
- Programming and Coding
- Auditing and Assurance Standards
- Engagement Quality Control
- Project Execution and Control
- Auditor Independence
- Financial Statements Analysis
- Risk Assessment
- Business Acumen
- Internal Controls
- Customer Orientation
- Cyber Security
- Macroeconomic Analysis
- Data Analytics
- Professional Scepticism and Judgment
- Data Governance

Financial Services Sector

2 Compliance Advisory Executive

Track: Risk, Compliance and Legal

TRANSFERABLE SKILLS

- Compliance Mindset Development
- Regulatory and Legal Advisory
- Problem Solving
- Ethical Culture
- Stakeholder Management
- Collaboration
- Communication

ADDITIONAL SKILLS TO DEVELOP

- Change Management
- Policy Implementation and Revision
- Risk Management
- Corporate Governance
- Regulatory Compliance
- Learning Agility
- Data Collection and Analysis
- Risk and Compliance Reporting
- Sense Making

*Note: Mobility dashboards were developed for "High" impact job roles and the industry has identified the above as the top 3 potential roles practitioners can potentially move into

Mobility dashboard – Accounts Executive/Accounts Assistant

Accounting Practices Sector

1 Accountant/Senior Accounts Executive¹

Track: Financial Accounting

TRANSFERABLE SKILLS

- | | | |
|--|---|--|
| <ul style="list-style-type: none"> Accounting Standards Accounting and Tax Systems Audit Compliance Business Innovation and Improvement Data Analytics Digital Technology Adoption and Innovation Digital Technology Environment Scanning | <ul style="list-style-type: none"> Financial Closing Financial Management Financial Reporting Financial Reporting Quality Group Accounting and Consolidation Internal Controls Professional and Business Ethics Professional Scepticism and Judgement | <ul style="list-style-type: none"> Professional Standards Project Management Tax Computation Communication Collaboration Learning Agility Problem Solving Sense Making |
|--|---|--|

ADDITIONAL SKILLS TO DEVELOP

- | | | |
|---|---|---|
| <ul style="list-style-type: none"> Audit Frameworks Business Planning Capital Expenditure and Investment Evaluation Conflict Management | <ul style="list-style-type: none"> Finance Business Partnering Financial Statements Analysis Regulatory Compliance Stakeholder Management | <ul style="list-style-type: none"> Tax Implications Taxation Laws Transactional Accounting Transfer Pricing |
|---|---|---|

2 Risk Advisory Associate/Executive^{**}

Track: Risk Advisory^{**}

TRANSFERABLE SKILLS

- | | | |
|---|---|--|
| <ul style="list-style-type: none"> Data Analytics Digital Technology Adoption and Innovation Internal Controls | <ul style="list-style-type: none"> Professional and Business Ethics Communication | <ul style="list-style-type: none"> Problem Solving Collaboration Learning Agility |
|---|---|--|

ADDITIONAL SKILLS TO DEVELOP

- | | | |
|--|---|---|
| <ul style="list-style-type: none"> Benchmarking Business Continuity Management Business Process Analysis Corporate and Business Law Cyber Security Data Governance | <ul style="list-style-type: none"> Environment and Social Governance Financial Analysis Fraud Risk Management Governance Macroeconomic Analysis Project Execution and Control | <ul style="list-style-type: none"> Regulatory Risk Assessment Risk Advisory^{**} Risk Appetite and Goal Setting Risk Management Stakeholder Management Systems Thinking |
|--|---|---|

1. Accounts Executive/Accounts Assistant and Accountant/Senior Accounts Executive refer to roles in accounting practices

* Note: Mobility dashboards were developed for "High" impact job roles and the industry has identified the above as the top 3 potential roles practitioners can potentially move into

** Risk Advisory represents the Enterprise Risk Management functional track in SFw for Accountancy

Mobility dashboard – Risk Advisory Associate/Executive**

Accounting Practices Sector

1 Risk Advisory Senior/Senior Executive**

Track: Risk Advisory**

TRANSFERABLE SKILLS

- | | | |
|--|---|--|
| <ul style="list-style-type: none"> • Benchmarking • Business Continuity Management • Business Process Analysis • Corporate and Business Law • Cyber Security • Data Analytics • Data Governance • Digital Technology Adoption and Innovation | <ul style="list-style-type: none"> • Environment and Social Governance • Financial Analysis • Fraud Risk Management • Governance • Internal Controls • Macroeconomic Analysis • Professional and Business Ethics | <ul style="list-style-type: none"> • Project Execution and Control • Regulatory Risk Assessment • Risk Advisory** • Risk Appetite and Goal Setting • Risk Management • Stakeholder Management • Systems Thinking • Communication • Collaboration • Problem Solving |
|--|---|--|

ADDITIONAL SKILLS TO DEVELOP

- Transdisciplinary Thinking

2 Senior Internal Auditor/Internal Auditor

Track: Internal Audit

TRANSFERABLE SKILLS

- | | | |
|---|--|---|
| <ul style="list-style-type: none"> • Data Analytics • Digital Technology Adoption and Innovation • Internal Controls | <ul style="list-style-type: none"> • Professional and Business Ethics • Stakeholder Management | <ul style="list-style-type: none"> • Collaboration • Communication • Problem Solving |
|---|--|---|

ADDITIONAL SKILLS TO DEVELOP

- | | | |
|---|--|---|
| <ul style="list-style-type: none"> • Auditor Independence • Business Acumen • Business Innovation and Improvement • Due Professional Care • Enterprise Risk Management | <ul style="list-style-type: none"> • Financial Statements Analysis • Infocomm Security and Data Privacy • Information Gathering and Analysis • Internal Audit Engagement Execution | <ul style="list-style-type: none"> • Internal Audit Engagement Planning • Professional Standards • Digital Fluency • Sense Making |
|---|--|---|

3 Financial Forensics Associate/Executive

Track: Financial Forensics

TRANSFERABLE SKILLS

- | | | |
|--|---|--|
| <ul style="list-style-type: none"> • Corporate and Business Law • Cyber Security • Professional and Business Ethics | <ul style="list-style-type: none"> • Project Execution and Control • Regulatory Risk Assessment | <ul style="list-style-type: none"> • Stakeholder Management • Communication • Problem Solving |
|--|---|--|

ADDITIONAL SKILLS TO DEVELOP

- | | | |
|---|--|---|
| <ul style="list-style-type: none"> • Accounting Standards • Digital Forensics • Digital Technology Environment Scanning • Evidence Management • Financial Crime Laws and Regulations | <ul style="list-style-type: none"> • Financial Statements Analysis • Forensic Data Analytics • Fraud Detection and Prevention • Fraud Investigation Planning and Execution | <ul style="list-style-type: none"> • Litigation Support • Professional Scepticism and Judgment • Programming and Coding • Digital Fluency • Sense Making |
|---|--|---|

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Mobility dashboard – Financial Forensics Associate/Executive

Accounting Practices Sector

1

Financial Forensics Senior/Senior Executive

Track: Financial Forensics

TRANSFERABLE SKILLS

- Accounting Standards
- Corporate and Business Law
- Cyber Security
- Digital Forensics
- Digital Technology Environment Scanning
- Evidence Management
- Financial Crime Laws and Regulations
- Financial Statements Analysis
- Forensic Data Analytics
- Fraud Detection and Prevention
- Litigation Support
- Fraud Investigation Planning and Execution
- Professional and Business Ethics
- Professional Scepticism and Judgment
- Programming and Coding
- Project Execution and Control
- Regulatory Risk Assessment
- Stakeholder Management
- Communication
- Digital Fluency
- Sense Making

ADDITIONAL SKILLS TO DEVELOP

- Conflict Management
- Internal Controls
- Project Management
- Risk Assessment
- Valuation Approaches and Methodologies
- Creative thinking

2

Senior Internal Auditor/Internal Auditor

Track: Internal Audit

TRANSFERABLE SKILLS

- Cyber Security
- Financial Statements Analysis
- Professional and Business Ethics
- Project Execution and Control
- Communication
- Digital Fluency
- Sense Making

ADDITIONAL SKILLS TO DEVELOP

- Auditor Independence
- Business Acumen
- Business Innovation and Improvement
- Business Process Analysis
- Data Analytics
- Due Professional Care
- Enterprise Risk Management
- Engagement Execution
- Internal Audit
- Infocomm Security and Data Privacy
- Information Gathering and Analysis
- Engagement Planning
- Internal Controls
- Professional Standards
- Risk Management
- Collaboration
- Fraud Risk Management
- Governance

Financial Services Sector

3

Operations Risk and Control Analyst

Track: Risk, Compliance and Legal

TRANSFERABLE SKILLS

- Regulatory and Legal Advisory
- Regulatory Compliance
- Regulatory Risk Assessment
- Communication
- Digital Fluency
- Problem Solving

ADDITIONAL SKILLS TO DEVELOP

- Business Continuity Planning
- Business Risk Assessment
- Data Analytics and Computational Modelling
- Data Governance
- Disruption Management
- Ethical Culture
- Fraud Risk Management
- Monitoring and Surveillance
- Operational Risk Management
- Risk Management
- Security Governance
- Collaboration

*Note: Mobility dashboards were developed for "High" impact job roles and the industry has identified the above as the top 3 potential roles practitioners can potentially move into

Mobility dashboard – Corporate Secretarial Associate

Not captured in any SFw

1 Corporate Secretarial Senior/Senior Executive

Track: N/A

TRANSFERABLE SKILLS

- Business Acumen
- Corporate and Business Law
- Data Governance
- Environment and Social Governance
- Financial Reporting
- Financial Reporting Quality
- Infocomm Security and Data Privacy
- Macroeconomic Analysis
- Management Decision Making
- Non-Financial Reporting
- Professional and Business Ethics
- Professional Standards
- Regulatory Compliance
- Regulatory Risk Assessment
- Stakeholder Management
- Collaboration
- Communication
- Transdisciplinary thinking

ADDITIONAL SKILLS TO DEVELOP

- Sense Making
- Self-Management

Accounting Practices sector

2 Accounts Executive/Accounts Assistant¹

Track: Financial Accounting

TRANSFERABLE SKILLS

- Financial Reporting
- Financial Reporting Quality
- Professional and Business Ethics
- Professional Standards
- Communication
- Collaboration
- Problem Solving

ADDITIONAL SKILLS TO DEVELOP

- Accounting Standards
- Accounting and Tax Systems
- Audit Compliance
- Business Innovation and Improvement
- Data Analytics
- Digital Technology Adoption and Innovation
- Digital Technology Environment Scanning
- Financial Closing
- Financial Management
- Financial Transactions
- Group Accounting and Consolidation
- Internal controls
- Professional Scepticism and Judgement
- Project Management
- Tax Computation
- Tax Implications
- Taxation Laws
- Transactional Accounting
- Transfer Pricing
- Learning Agility
- Sense Making

*1. Accounts Executive/Accounts Assistant and Accountant/Senior Accounts Executive refer to roles in accounting practices

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Mobility dashboard – Senior Internal Auditor/Internal Auditor

Accounting Practices Sector

1 Internal Audit Assistant Manager

Track: Internal Audit

TRANSFERABLE SKILLS

- Auditor Independence
- Business Acumen
- Business Innovation and Improvement
- Business Process Analysis
- Cyber Security
- Data Analytics
- Due Professional Care
- Enterprise Risk Management
- Financial Statements Analysis
- Fraud Risk Management
- Governance
- Infocomm Security and Data Privacy
- Information Gathering and Analysis
- Internal Audit Engagement Execution
- Internal Audit Engagement Planning
- Internal Controls
- Professional and Business Ethics
- Professional Standards
- Project Execution and Control
- Risk Management
- Communication
- Collaboration
- Digital Fluency

ADDITIONAL SKILLS TO DEVELOP

- Digital Technology Environment Scanning
- Problem Solving
- Internal Audit Function Management
- Internal Audit Quality Assurance

2 Risk Advisory Senior/Senior Executive**

Track: Risk Advisory**

TRANSFERABLE SKILLS

- Business Process Analysis
- Cyber Security
- Data Analytics
- Fraud Risk Management
- Governance
- Internal Controls
- Professional and Business Ethics
- Project Execution and Control
- Risk Management
- Communication
- Collaboration

ADDITIONAL SKILLS TO DEVELOP

- Benchmarking
- Business Continuity Management
- Corporate and Business Law
- Data Governance
- Digital Technology Adoption and Innovation
- Environment and Social Governance
- Financial Analysis
- Macroeconomic Analysis
- Regulatory Risk Assessment
- Risk Advisory
- Risk Appetite and Goal Setting
- Stakeholder Management
- Systems Thinking
- Problem Solving
- Learning Agility

3 Accounts Executive/Accounts Assistant¹

Track: Financial Accounting

TRANSFERABLE SKILLS

- Business Innovation and Improvement
- Data Analytics
- Internal controls
- Professional and Business Ethics
- Professional Standards
- Communication
- Collaboration
- Sense Making

ADDITIONAL SKILLS TO DEVELOP

- Accounting Standards
- Accounting and Tax Systems
- Audit Compliance
- Digital Technology Adoption and Innovation
- Digital Technology Environment Scanning
- Financial Closing
- Financial Management
- Financial Reporting
- Financial Reporting Quality
- Financial Transactions
- Group Accounting and Consolidation
- Professional Scepticism and Judgement
- Project Management
- Tax Computation
- Tax Implications
- Taxation Laws
- Transactional Accounting
- Transfer Pricing
- Learning Agility
- Problem Solving

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**Risk Advisory represents the Enterprise Risk Management functional track in SFw for Accountancy

Future of the accounting practices sector: Recommendations

- 6.1. Overview of recommendations
- 6.2. Recommendation 1 – Encourage adoption of emerging technologies to drive workforce productivity
- 6.3. Recommendation 2 – Drive job redesign adoption to maintain long-term competitiveness and agility
- 6.4. Recommendation 3 – Embrace talent from a wide range of talent supply sources to meet the sector's manpower demand
- 6.5. Recommendation 4 – Re-assess the current workforce's skills and create a roadmap for acquiring future skills, to build a future-ready workforce
- 6.6. Recommendation 5 – Elevate the accounting practices sector's image and appeal to attract the best talent

Future of the accounting practices sector: Recommendations

6.1. Overview of recommendations

- 6.2. Recommendation 1 – Encourage adoption of emerging technologies to drive workforce productivity
- 6.3. Recommendation 2 – Drive job redesign adoption to maintain long-term competitiveness and agility
- 6.4. Recommendation 3 – Embrace talent from a wide range of talent supply sources to meet the sector's manpower demand
- 6.5. Recommendation 4 – Re-assess the current workforce's skills and create a roadmap for acquiring future skills, to build a future-ready workforce
- 6.6. Recommendation 5 – Elevate the accounting practices sector's image and appeal to attract the best talent

Overview of recommendations: Skilled manpower is a critical enabler for the sector's future

KEY CHALLENGES FACED BY THE SECTOR

- 1  Technology/digitalisation journey
- 2  Remote working
- 3  Changing client expectations
- 4  Low sector appeal

THREE STRATEGIC THRUSTS TO MOVE THE SECTOR FORWARD

STRATEGIC THRUST #1:

Embracing Technology

STRATEGIC THRUST #2:

Investing in Capability Building for the Industry

STRATEGIC THRUST #3:

Uplifting Sector Image



PARTNERING WITH KEY STAKEHOLDERS IN THE SECTOR



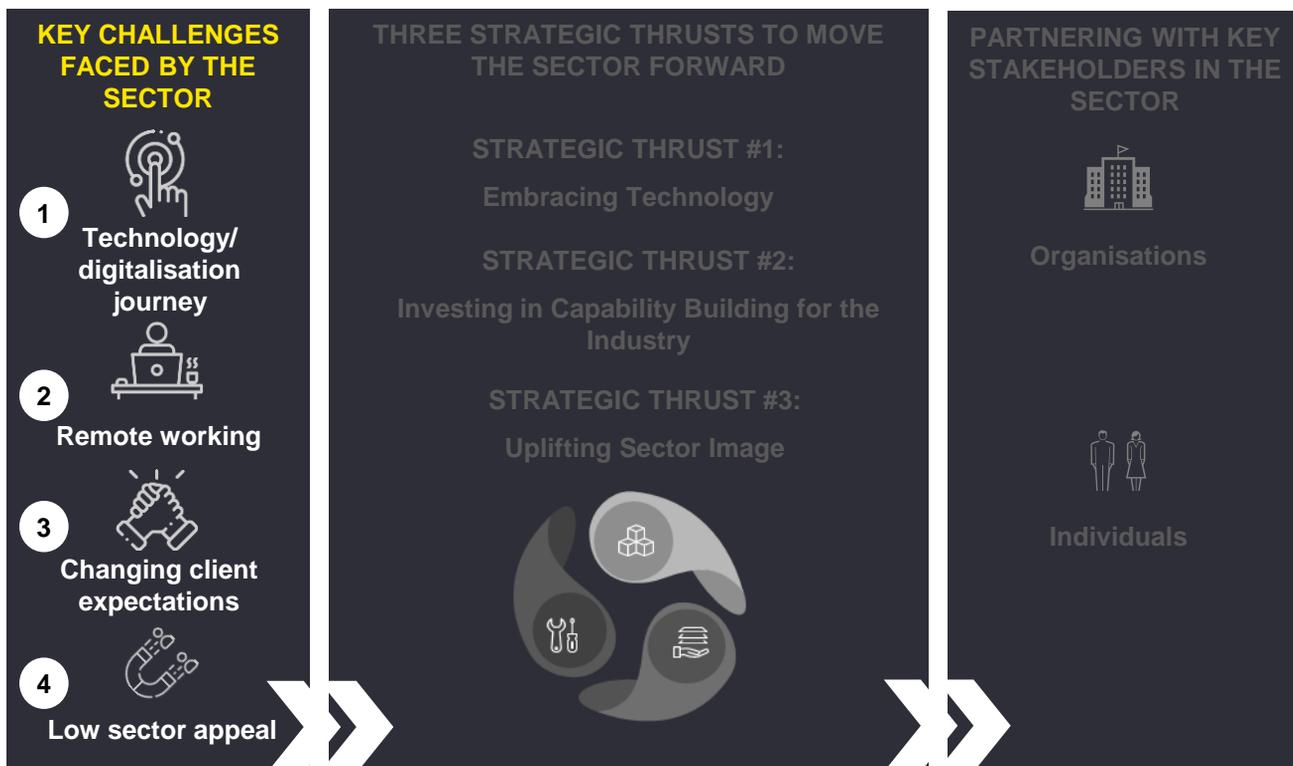
Organisations



Individuals

- **The accounting practices sector is evolving** with the increasing pace of technological developments and megatrends impacting the sector. These trends bring **new dynamics and business growth opportunities** that the sector should seize by leveraging Singapore's status as a regional business hub
- As clients embark on their digitalisation journey, **accounting practices should adopt emerging technologies** at the same pace or faster, to ensure that the sector **remains relevant to their clients' evolving needs and new expectations**. As clients expect practitioners to provide more business insights, practitioners need to focus on value creation activities and advisory services. Thus, using technology tools are important to support transactional tasks. This enables job holders to **improve productivity and focus on providing insights-driven professional advice** to clients
- Hence, the sector needs to develop a strong pool of talent with technological and advisory skills. Initiatives need to be in place to support the workforce in **transforming jobs and acquiring requisite skills** to embrace the upcoming changes in the industry
- This report gathers some recommendations to address the impact of technology trends and megatrends to the accounting practices workforce

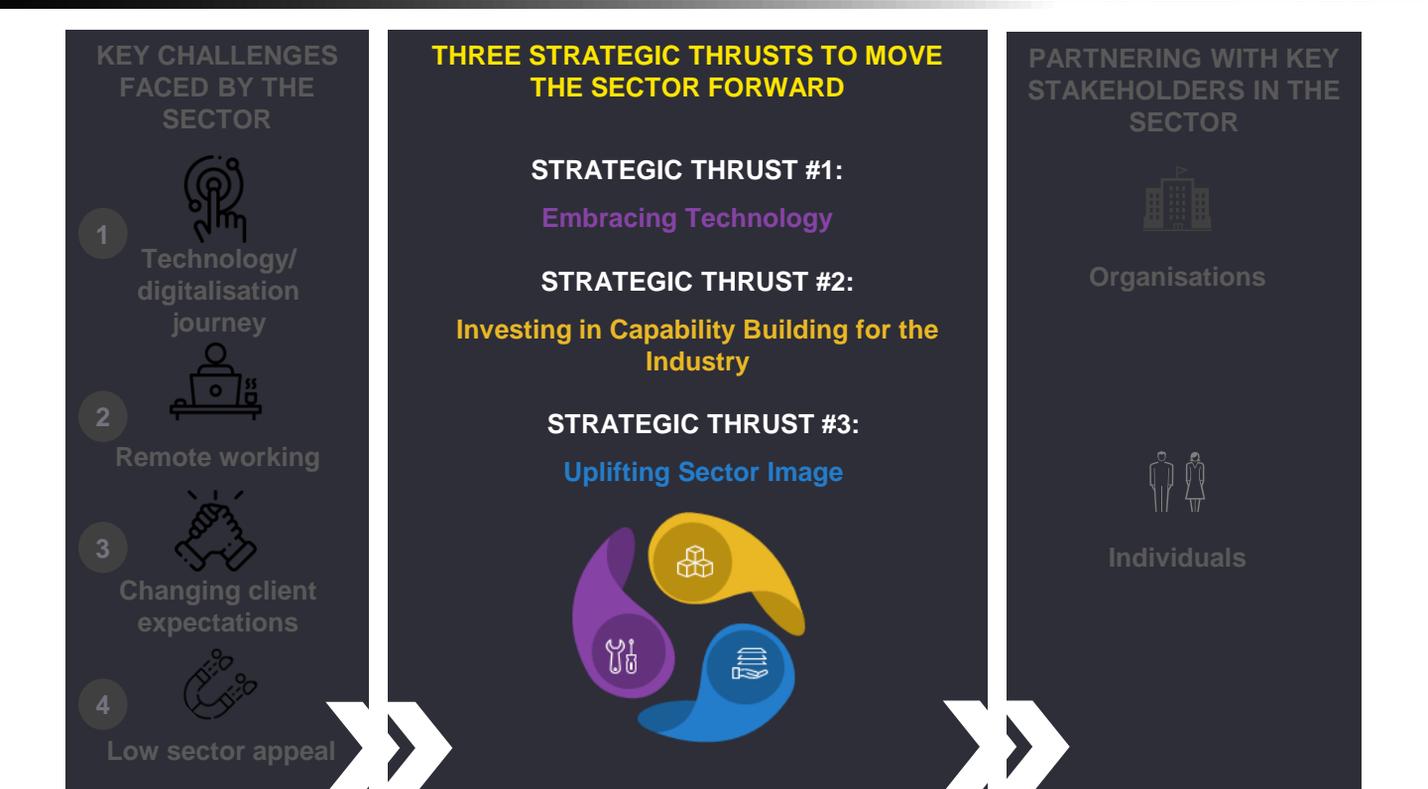
Overview of recommendations: 4 key challenges must be resolved to support the future of the accounting practices sector



In the current workforce, four key challenges have been identified as a result of emerging technologies and megatrends identified in this report. These challenges should be addressed to support the growth of the accounting practices sector:

1. The digital maturity of the accounting practices can differ. As clients embark on their digital transformation journey, **technology adoption should remain as the top strategic agenda** for accounting practices to drive productivity
2. COVID-19 has paved the way for a hybrid work environment. As **organisations embrace remote working** as the new normal, the leadership teams of accounting practices should **adopt a mindset change and learn new skills to manage, communicate and coach teams** (e.g. managers need to be output-driven instead of focusing on the hours worked). Managers and HR practitioners need to place more emphasis on the mental well-being and engagement of employees
3. Clients are increasingly expecting accounting practices to **leverage emerging technologies** to deliver engagements with greater efficiency and efficacy. Clients expect practitioners to bring **greater value by providing insights, driving process improvements and providing solutions**. Practitioners need to have a mindset shift and understand that as the range of projects become more diversified, it will be a norm to work in multi-disciplinary teams
4. With Singapore's declining birth rates, there is a **war for talent among the various sectors within the economy**. In addition, the **public perception on the nature of work** and lack of career pathways visibility in the accounting practices sector results in further talent shortage. Hence, more efforts need to be in place to **drive sector appeal and attract the best talent**

Overview of recommendations: The sector can focus on three strategic thrusts to move forward



To ensure the growth and the development of the accounting practices sector, stakeholders should focus on 3 strategic thrusts to drive sectoral effort and develop Singapore into a leading global accountancy hub.

Strategic thrust #1: Embracing technology

Digitalisation is the way forward for the accounting practices sector due to the accelerated pace of adoption of emerging technologies and the right technologies should be leveraged to boost workplace productivity (particularly for SMPs).

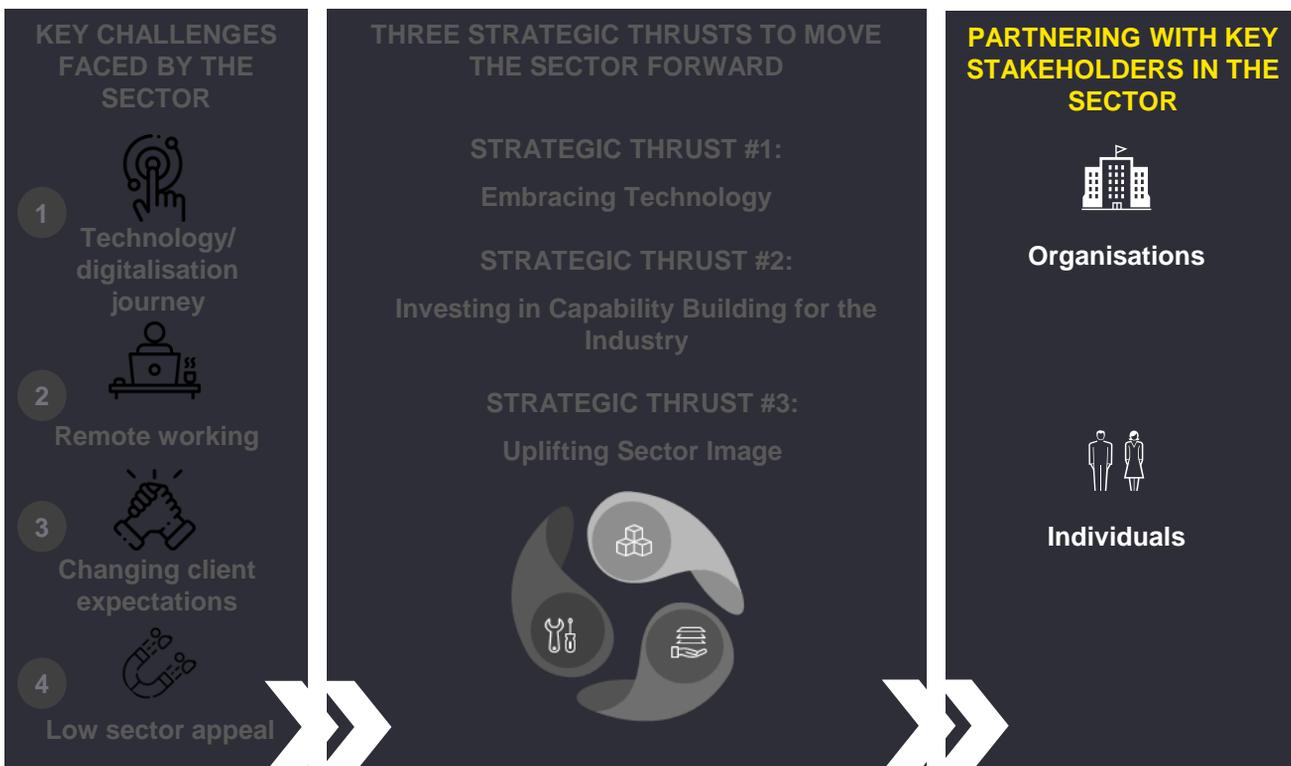
Strategic thrust #2: Investing in capability building for the industry

Given the impact of the emerging technologies and megatrends, continuous upskilling of the workforce is required to build a pool of highly skilled professionals to uplift capabilities for the sector.

Strategic thrust #3: Uplifting sector image

To ensure a continuous supply of talent pipeline, it is important to promote accountancy as a career of choice with new opportunities arising from the use of technology and the focus on higher-value activities in the sector.

Overview of recommendations: Partnering key stakeholders in the sector to drive growth



All stakeholders in the accounting practices ecosystem should collaborate and leverage possible synergies between various initiatives and efforts that are aimed at driving growth in the sector.

Organisations

As the main focus of this study, organisations refer to accounting practices based in Singapore that provide professional services to their clients. They play a key role in identifying areas of growth and understanding how job tasks are changing within their business to guide upskilling and reskilling efforts in their respective organisations. This will enable the workforce to be future-ready to meet the evolving demands of the sector.

Individuals

Accounting practitioners should embrace lifelong learning and change by staying abreast of industry trends.

Overview of the 5 recommendations (1/3)



Recommendation #1 – Encourage adoption of emerging technologies to drive workforce productivity

Digitalisation is the way forward for the accounting practices sector. With the accelerated pace of adoption of emerging technologies, clients not only expect engagements to be delivered with greater efficiency and efficacy but also require practitioners to provide advice in an increasingly complex environment. Organisations can leverage emerging technologies to manage evolving client and public expectations. Hence, technology adoption should remain as the top strategic agenda for the sector, where accounting practices need to stay agile to manage the impact of trends and ensure that the workforce has the right capabilities to meet such evolving demands. Technology adoption and upskilling in technology will be key in anchoring Singapore’s position as a leading accountancy hub in the region.



1.1: Accelerate efforts to adopt emerging technologies to build a future-ready workforce

Organisations



1.2: Take ownership and be proactive to pick up digital skills

Individuals



Recommendation #2 – Drive job redesign adoption to maintain long-term competitiveness and agility

With changing client expectations and increasing use of technologies, the accounting practices sector will require a more agile workforce to enhance productivity and efficiency. Hence, redesigning work processes, tasks and responsibilities is necessary for organisations to maintain their long-term competitiveness and agility. This could also be a talent attraction and retention tool as job holders focus on providing more advisory tasks. Redesigned jobs are also seen as more attractive and meaningful. There are existing job redesign initiatives such as “Job Redesign under Productivity Solutions Grant (PSG-JR)” and “Industry 4.0 Human Capital Initiative” available in the market, which organisations can tap on to support their digital and business transformation efforts.



2.1: Relook at existing jobs in alignment to the future of work in the accounting practices sector

Organisations



Overview of the 5 recommendations (2/3)

Recommendation #3 – Embrace talent from a wide range of talent supply sources to meet the sector’s manpower demand

Accounting practices need to recognise that talent supply sources for the sector are declining due to the war for talent which is driven by declining birth rates and increasing competition from other industries. As the sector continues to grow in the next 5 years, the key challenge is to ensure that there is sufficient talent supply to meet the needs of the growing sector. Accounting practices need to have a mindset shift and be open to explore a wider scope of talent supply sources (e.g. mid-careerists), to ensure that the sector’s demand for talent can be met.



3.1: Expand talent supply sources (e.g. mid-careerists, talent from in-house finance corporate roles, freelancers, retirees etc.) to meet sector headcount demand

Organisations



Recommendation #4 – Re-assess the current workforce’s skills and create a roadmap for acquiring future skills, to build a future-ready workforce

As the accounting practices workforce are impacted by emerging technologies and megatrends, upskilling the workforce in various areas of skills such as technology application skills, technical and domain knowledge, as well as soft skills is the key in uplifting the accounting practices sector. The workforce needs to be cognisant of trends impacting the sector and be ready to embrace change with learning agility. Organisations should take the lead in workforce upskilling, ensuring that the workforce is ready to navigate the evolving demands of the sector. Individuals should also take proactive steps to embark on upskilling initiatives, to prepare themselves for the evolving demands of the sector. Organisations can leverage existing initiatives provided by professional bodies/government to support their upskilling endeavours. Upskilling through formal, informal and on-the-job learning requires concerted and integrated efforts across both organisations and individuals to increase awareness and ensure effectiveness.



4.1: Emphasise on upskilling to build a future-ready workforce*

Organisations



* There are terms and conditions that apply for the various programmes

Overview of the 5 recommendations (3/3)



Recommendation #5 – Elevate the accounting practices sector’s image and appeal to attract the best talent

The accounting practices sector is expected to continue growing in the next 5 years. However, the war for talent due to declining birth rates and competition from other industries, means accounting practices need to rethink their employer branding and Employee Value Proposition (EVP) to uplift sector image so as to attract, retain and develop high-quality talent within the sector. For instance, industries such as Information and Communications Technology (ICT) and Financial Services may be perceived to be more innovative or offer better remuneration. Hence, working in accounting practices may not be the preferred career choice, as revealed during our industry outreach. To ensure that the sector continues to attract the right talent to meet growing demands, it is important to elevate the image and brand of the sector, and strengthen the sector’s value proposition.

5.1: Re-evaluate Employer Branding and Employee Value Proposition (EVP)

Organisations



Future of the accounting practices sector: Recommendations

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Risk advisory averts risks and helps businesses navigate volatile business environment



Armeera Wahab
Associate, Risk Advisory,
KPMG Singapore

“Risk Advisory is key to achieving business resilience, which in turn positively influences business performance. It allows you to experience seeing the recommendations and solutions you provide to your clients come to fruition and help them improve

Armeera has always been interested in Risk Advisory* and had the opportunity to take up risk management modules back in school, which further reaffirmed her decision to join the sector. Hence, she joined the Risk Advisory* practice in KPMG upon graduation from university in 2020.

Dealing with a new world of emerging risks, practitioners need to “think out of the box”

Armeera explains that the **risk landscape is being re-defined** with **increasing uncertainty** surrounding the global economy. Unexpected events such as the COVID-19 pandemic and Suez Canal blockage¹ have resulted in the emergence of new risks, disrupting organisations’ supply chains and business models. Hence, it is important for practitioners to stay abreast of local and global events, to understand market trends.

“It is no longer sufficient for practitioners to just monitor and report risks using the current risk frameworks. Multiple dimensions now need to be considered to identify, assess, prioritise and respond to the new world of emerging risks,” shares Armeera. She believes that Risk Advisory* practitioners need to “**think out of the box**” as they play a key role in helping clients to pre-empt emerging risks, understand implications to their local and global business operations and safeguard against them.

Risk advisory* and internal audit need to work together to drive better decisions for organisations

She believes that the **Risk Advisory* and Internal Audit practices should go hand in hand** to help clients achieve operational efficiency and effectiveness. Risk Advisory* practitioners help organisations leverage emerging opportunities and prepare them for changes in the business environment. Internal Audit practitioners can then take Risk Advisory* further by providing insights into the effectiveness of organisations’ risk frameworks.

Using a data-driven approach to improve risk-related decisions

Armeera sees the data-driven approach as a more **scientific methodology** to help clients determine risks and actual losses, and advise on the appropriate risk-taking level. Technology such as Intelligent Automation can be used to help clients automate the collection of metrics as part of their business units’ workflow while Data Analytics can analyse the vast data points to identify and prevent real risks. “With the assistance of these technologies, my team and I managed to save about 15% of the time spent previously and we can now focus more on offering business advisory services to our clients. In the longer term, we envision that technology will enable us to save up to 25-35% of time spent on collecting metrics and performing analysis,” Armeera chimed.

Advice to practitioners who are exploring a career in risk advisory*

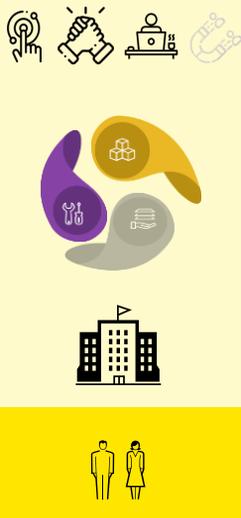
“Go for it! This will be a great opportunity for you to develop an intimate understanding of the risks that businesses across all sectors face,” Armeera shares. “Risk Advisory* will require a myriad of skills and experience, and the learning opportunities are endless. In addition, monotony seldom strikes in a career like this because each client is truly unique on its own,” added Armeera.

* Risk Advisory represents the Enterprise Risk Management functional track in SFw for Accountancy

¹ In March 2021, the Suez Canal which is one of the world’s busiest trade routes was blocked by a large container ship for six days. This had a negative impact on trade between Europe, Asia and the Middle East. Many vessels were diverted on a week-long detour around Africa and this has resulted in greater supply chain risks due to the disruption of global trade, increased shipping rates and a rise in global inflation

Recommendation 1 – Encourage adoption of emerging technologies to drive workforce productivity

Recommendation 1.2: Take ownership and be proactive to pick up digital skills



- Individuals need to stay abreast of emerging technologies and understand how they impact job tasks and skills. Practitioners need to **proactively embrace emerging technologies** and **lifelong learning** to ensure that they possess the relevant in-demand skills. Hence, it is important for practitioners to take the initiative to **drive their own individual professional development roadmaps** by leveraging available resources from professional bodies and IHLs. For example, digital in-demand skills such as digital communication will be increasingly important with the shift towards a **hybrid work environment**.
- Individuals can leverage upskilling programmes offered by professional bodies/government to support their upskilling endeavours. Some initiatives include, but are not limited to:
 - ✓ [SkillsFuture Credit](#) which aims to encourage individuals to take ownership of their skills development and lifelong learning
 - ✓ [ISCA CPE Training](#) which was developed specifically for accounting professionals to upskill and reskill in high-growth and emerging areas
 - ✓ The [Company-Led Training \(CLT\) programme](#) which targets to develop the digital skills of individuals through on-the-job training

Available initiatives:

1. [SkillsFuture Credit](#) | 2. [ISCA CPE Training](#) |
3. [Company-Led Training \(CLT\) programme](#)

Legend of challenges

- Technology/Digitalisation journey
- Remote working

Key stakeholders

- Organisations
- IHLs



- Changing client expectations
- Low sector appeal



Legend of strategic thrusts

- Embracing technology
- Investing in capability building
- Uplifting sector image



- Professional bodies/government agencies



- Individuals

How technology is revolutionising the future of job tasks in Assurance



Lynn Tan
Senior Associate,
Assurance, PwC Singapore

“Technology has not only provided our clients with additional insights, but also enabled audit teams to increase productivity

Lynn started as an intern in PwC’s Assurance team 3 years ago and shares that she enjoys the coaching culture in audit. Hence, she decided to pursue a career in this field upon graduation.

Technology is the way forward

Lynn explains that in an increasingly complex regulatory and economic environment, **technology will be an enabler** in creating greater efficiencies, providing value to clients by making sense of data and translating them into business insights. Clients are now expecting practitioners to **broaden their job tasks beyond audit checks** – to analyse their data and **provide a lens into the business** through the numbers.

Technology has transformed the way audits are being performed

“The laborious hours spent on manual tasks that non-practitioners understand of audit is far from what is the reality today,” explains Lynn. In fact, there is far greater use of technology in her day-to-day work. The **use of Intelligent Automation**, as an example, has assisted her and her team in many practical ways. She mused that the **streamlining of transactional tasks** has now **resulted in significant time savings**. “The team used to spend several days consolidating schedules for different entities into a standardised format manually,” said Lynn. “Today, this task is automated by technology and is completed within an hour! This has allowed me to spend my time efficiently on analysing the data, reviewing the deliverables and solving complex audit issues instead,” explains Lynn.

“Being manual can no longer work to our advantage,” shares Lynn. She and her team now leverage **Data Automation & Analytics** to analyse journal entries. This new way of analysis definitely expedites identifying of outliers and this has saved about 20-40% of the time required to perform journal testing. This enables the team to cover a wider scope of audit with far better accuracy. With these time savings, the team now focuses on interpreting these insights and providing more value-adding services to their clients.

Play a proactive role to prepare yourself for the future of audit

“As technology transforms the way audits are being performed, it is important for practitioners to take a **proactive stance in understanding how technology tools** can be leveraged in their existing work processes to **bring greater efficiencies and value to clients**,” said Lynn. She shares that technology skills in the area of Robotics and Automation Application, Data Visualisation, and Data Analysis and Interpretation are increasingly important. As technology is an enabler for practitioners, soft skills such as **Transdisciplinary Thinking and Problem Solving** will support them to better engage with clients.

Advice to aspiring audit practitioners

“Keep an open and innovative mind in embracing technology - constantly evaluate current processes and think of ways to improve audit workflows because this helps to shape the future of Assurance!”, shared Lynn when asked for advice to aspiring audit practitioners.

Future of the accounting practices sector: Recommendations

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Recommendation 2 – Drive job redesign adoption to maintain long-term competitiveness and agility



Recommendation 2.1: Relook at existing jobs in alignment to the future of work in the accounting practices sector

- Accounting practices need to recognise that technology and changing market demands will require practitioners to possess a mindset shift to focus on value creation for clients. Hence, they need to **embrace the future of work** by **leveraging existing job redesign initiatives**, which provide both expertise and financial support. This will support their efforts in evaluating the tasks performed today, enabling practitioners to focus on advisory activities, maximise productivity and deliver greater value for clients
- For instance, job redesign initiatives can be explored for the Tax functional track as clients are expecting more advisory services instead of compliance activities. Hence, the work processes and/or skills required need to be relooked, to enable employees to keep pace with the capability demands of evolving business needs and be future-ready

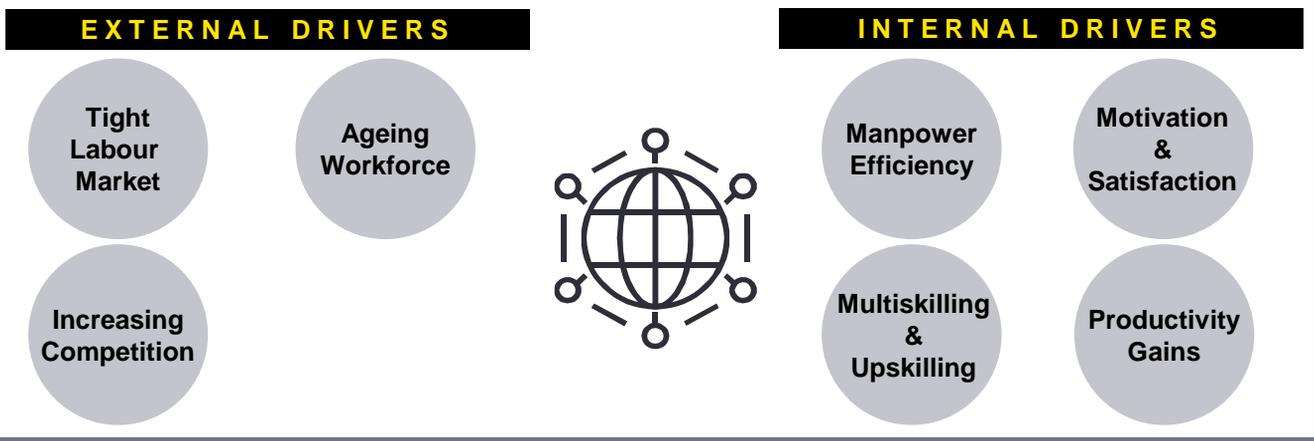
Available initiatives:
1. [Support for Job Redesign under Productivity Solutions Grant \(PSG-JR\)](#)

Overview for Job Redesign

What is job redesign?

Job redesign involves modifying the way work is performed in an existing job. A classic scenario where job redesign can add value is through the **introduction of new technology** which then results in a change to the work processes and/or skills required. It will ensure that employees have the necessary skills and resources to contribute effectively to business despite the changing nature of their job roles.

THE CASE FOR JOB REDESIGN



<p>Legend of challenges</p> <p> Technology/Digitalisation journey</p> <p> Changing client expectations</p> <p> Remote working</p> <p> Low sector appeal</p>		<p>Legend of strategic thrusts</p> <p> Embracing technology</p> <p> Investing in capability building</p> <p> Uplifting sector image</p>	
<p>Key stakeholders</p> <p> Organisations</p> <p> IHLs</p>		<p> Professional bodies/government agencies</p> <p> Individuals</p>	

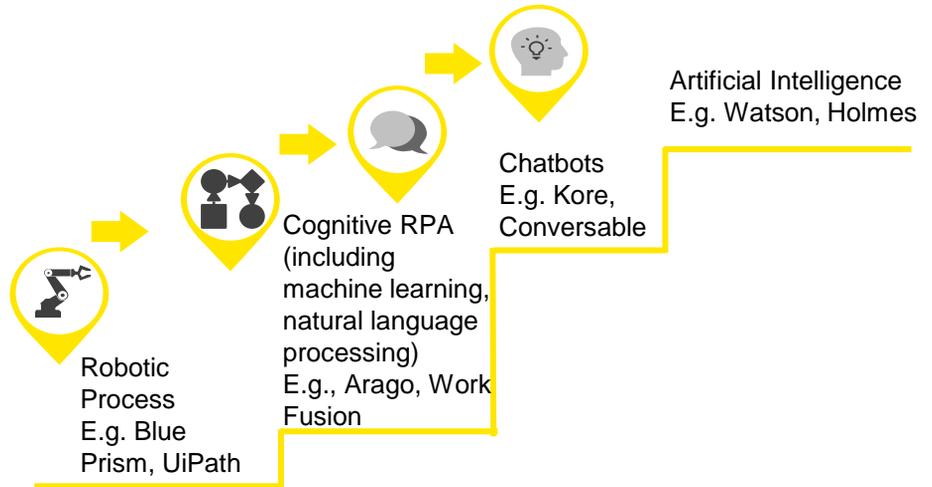
Recommendation 2 – Drive job redesign adoption to maintain long-term competitiveness and agility

Recommendation 2.1: Relook at existing jobs in alignment to the future of work in the accounting practices sector (cont'd)

Job Redesign can be enabled by technological and non-technological solutions

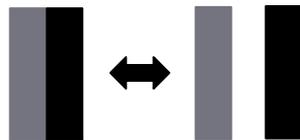
TECHNOLOGY

A common technological solution is **Intelligent Automation**, which has varying levels of maturity.

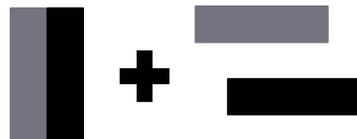


NON-TECHNOLOGY

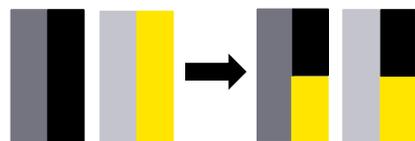
Non-technological solutions involve changing the task requirements of a job role, including adding or removing tasks.



Uncoupling
Separating tasks into two jobs at the same level



Unstacking
Separating tasks into two job roles at different levels



Segmenting
Combining portions of other jobs into new jobs

<p>Legend of challenges</p> Technology/Digitalisation journey Changing client expectations		<p>Legend of strategic thrusts</p> <p>Embracing technology Investing in capability building Uplifting sector image</p>	
<p>Key stakeholders</p> Organisations IHLs		<p>Low sector appeal</p> Professional bodies/government agencies Individuals	

With technology as an enabler, tasks performed by Financial Accounting practitioners are shifting from transactional to advisory activities



Chris Tan
Accounts Manager,
Financial Accounting,
Mazars Singapore

“Technology has enabled us to enjoy time savings, allowing us to focus on providing greater value and insights to our clients

Chris has always been interested in numbers and his favourite subject in secondary school was Principles of Accounts. He shares that he finds it interesting to know the story behind the numbers in an organisation’s financial statements, as he sees opportunities to provide professional advice to help clients grow their businesses. Hence, he decided to pursue a career in Financial Accounting.

A different world of financial accounting

Reflecting on the past, Chris shares that the work performed today has changed from when he had first started his career. As the sector pivots towards digitalisation, technology tools are now used to replace certain work processes to improve efficiency. Additionally, he shares that the financial accounting landscape is also becoming more complex with rapid changes in standards and regulations. Hence, practitioners need to stay abreast of the new requirements to provide advisory support to their clients.

As technology transforms tasks performed by practitioners, job redesign needs to be considered to drive greater productivity

Chris shares that technology tools such as **Intelligent Automation** are used to **automate manual data entries and generate reports**. This **saves up to 72% of the time previously spent on these tasks** and minimises human errors. Tools such as **Data Analytics** are also used to **perform analysis and share insights** with clients. Hence, practitioners focus more on complex and advisory tasks that require professional judgement.

With the increasing use of these technologies in existing work processes, Mazars started exploring how job tasks can be further streamlined to **maximise the productivity gains from technology adoption** and also **capitalise on the potential of their talents**. Hence, they have recently tapped on a government scheme which provides funding to support them in a job redesign initiative¹. “The focus of the job redesign initiative is for the junior roles, who typically perform more transactional tasks that are now enabled by technology,” shares Chris.

Practitioners whose roles are redesigned need to undergo upskilling

“As job roles are being redesigned, accounting practices need to **ensure that their learning programmes are refreshed** to align with the new expectations and competencies required from practitioners,” explains Chris. He shares that as Robotic Process Automation (RPA) is integrated into work processes, practitioners in his organisation are now expected to possess basic RPA knowledge and there are plans to support practitioners to build capabilities in this area.

Advice to accounting practices who are embarking on their digital transformation journey

Chris encourages accounting practices to consider job redesign as they embark on their digitalisation journey. He believes that job redesign enables the workforce to keep pace with evolving clients’ needs and stay future-ready. This is also another way to motivate employees as it increases on-the-job productivity and encourages them to perform better.

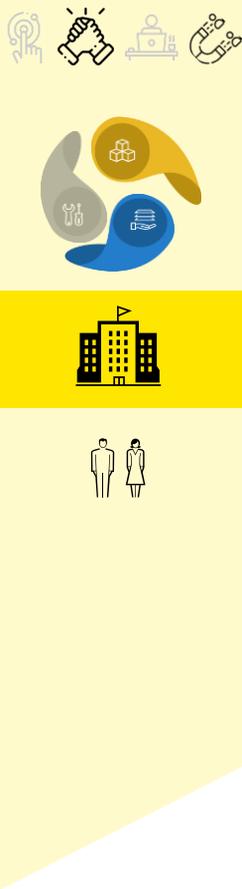
¹ Learn more about the [Support for Job Redesign under Productivity Solutions Grant \(PSG-JR\)](#)

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Recommendation 3 – Embrace talent from a wide range of talent supply sources to meet the sector’s manpower demand

Recommendation 3.1: Embrace talent from a wide range of talent supply sources



- Organisations need to adopt a **mindset shift to explore various talent supply sources** that have not been traditionally tapped on to grow the accounting practices workforce. This is to ensure that the sector continues to grow and is not debilitated by manpower shortages
- Organisations can explore talent supply sources such as **mid-careerists, talent from in-house finance corporate roles, freelancers in the gig economy and foreign manpower**. These individuals possess a **diverse pool of experience** and can undergo upskilling on relevant technical skills to meet the sector’s demand
- In addition, organisations should have an open mind and engage students through **Work-Study Programmes targeted at ITE, polytechnic and university graduates**, who possess strong applicable skillsets. This can be a good source of talent as the sector today focuses more on application skills to meet the changing needs of the sector

Organisations can partake in the following to further attract mid-careerists and freelancers into the sector:

- Recognise relevant prior experience and accelerate career advancement for mid-career entrants to reduce barriers to entry.** For example, prior experience of accounting professionals from in-house finance corporate roles in the commercial sector can be taken into account to attract mid-careerists to join the sector. In addition, accounting practices can compensate mid-career entrants for the income loss incurred in the first year when they make their career switch, in order to attract and retain these talents
- Attract **freelancers** to take on **engagement-based work** to meet the sector’s manpower demand needs during peak periods (e.g. Assurance and Tax), and provide full-time conversion opportunities for freelancers who perform well
- Leverage **training programmes** to bridge skills gaps for mid-careerists
- Leverage **existing interventions** such as the **CCP for Internal Audit** and **WSG Career Matching Services** to attract and retain mid-career switchers. These interventions help to reskill and prepare mid-careerists for a new career in accounting practices

Available initiatives:

- [CCP for Internal Audit](#) | 2. [WSG Career Matching Services](#)

Legend of challenges

- Technology/Digitalisation journey
- Remote working

Key stakeholders

- Organisations
- IHLs



- Changing client expectations
- Low sector appeal



Legend of strategic thrusts

- Embracing technology
- Investing in capability building
- Uplifting sector image



Professional bodies/government agencies



Individuals

Recommendation 3 – Embrace talent from a wide range of talent supply sources to meet the sector’s manpower demand

Recommendation 3.1: Embrace talent from a wide range of talent supply sources (cont’d)

Organisations can partake in the following to further attract talent from Work-Study Programmes:

- Partner IHLs in providing **extensive internship opportunities** to scout for talent from Work-Study Programmes such as:
 - NTU-Deloitte Work-Study Programme
 - SUSS Work-Study Programme
 - NYP Work-Study Programme
 - SMU Work-Study Elective Programmes
- Provide **accelerated career-entry track** for graduates with exemplary performance during their internship stints

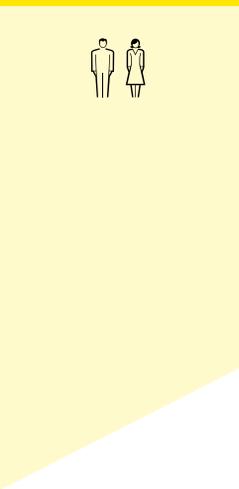
Legend of challenges Technology/Digitalisation journey Remote working		Changing client expectations Low sector appeal		Legend of strategic thrusts Embracing technology Investing in capability building Uplifting sector image	
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Recommendation 4 – Re-assess the current workforce's skills and create a roadmap for acquiring future skills, to build a future-ready workforce

Recommendation 4.1: Emphasise on upskilling to build a future-ready workforce



- The accounting practices sector is a highly competitive industry. Clients expect practitioners to be more productive and provide more insights to drive business value. With **talent shortage within the sector**, accounting practices need to **leverage technology** to support existing work processes, **driving workforce productivity**. The **time savings** then enable accounting practices to **moderate demand for manpower** and allow practitioners to **focus on advisory activities**
- Organisations can partner IHLs and professional bodies to **provide recognition and credibility to these micro-learning courses** for key future skills such as digital skills
- Organisations can also partner with IHLs to curate **training roadmaps for each job level** to ensure that the workforce is upskilled in pivotal areas of skills across all job roles
 - ✓ **Junior level** practitioners will focus on learning how to **manage automation**
 - ✓ **Managerial level** practitioners will learn how to **interpret data insights** and **translate** them into valuable **business insights** to clients
 - ✓ **Director/Partner level** practitioners will learn how to **synergise technology** into existing work process to help their accounting practices scale to greater heights
- As organisations undergo digital transformation, the **workforce must also upskill in Artificial Intelligence Application, Data Interpretation & Analytics and Communication skills** to effectively articulate business insights derived from analysis enabled by technology and complement their technical skills
- Organisations need to take a **proactive stance in leading upskilling efforts**, to ensure that their workforce is future-ready. The workforce needs to understand the importance of upskilling and areas to upskill in. Organisations can introduce mandatory training hours and promote micro-learning opportunities such as lunch-and-learn sessions

Legend of challenges Technology/Digitalisation journey Remote working Changing client expectations Low sector appeal		Legend of strategic thrusts Embracing technology Investing in capability building Uplifting sector image	
Key stakeholders Organisations IHLs Professional bodies/government agencies Individuals			

Recommendation 4 – Re-assess the current workforce's skills and create a roadmap for acquiring future skills, to build a future-ready workforce

Recommendation 4.1: Emphasise on upskilling to build a future-ready workforce (cont'd)



- In addition, organisations can leverage upskilling programmes offered by professional bodies/government. Some initiatives include:
 - ✓ Programmes to **gear up future leaders in the accounting practices sector** with leadership capabilities, market insights, business growth and technology strategies
 - ✓ Exposing **junior and managerial level** practitioners to **Standardised Practitioner's Packages** provided by professional bodies such as ISCA. This would provide technical support to practitioners, send a **clear signal to these individuals that upskilling is imperative** and encourage them to take a **proactive stance in upskilling**
- ✓ The government also provides **support to organisations to alleviate cost challenges in upskilling their workforce**, thus encouraging both accounting practices and individuals to take on necessary upskilling programmes to be future-ready

Available initiatives: 1. [Standardised Practitioner's Packages](#)

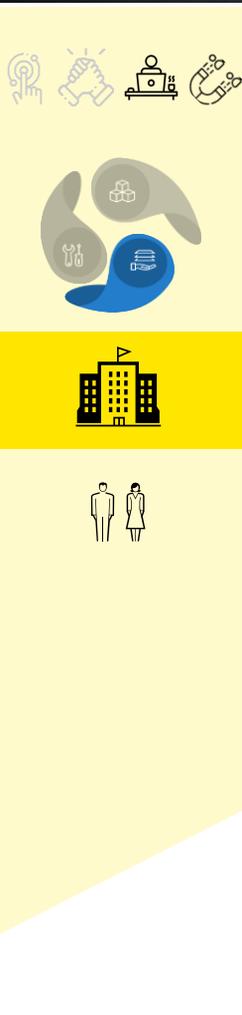
Note: There are terms and conditions that apply for the various programmes. CET course funding is available to Singaporeans/Permanent Residents only

Legend of challenges		Legend of strategic thrusts	
Technology/Digitalisation journey	Changing client expectations	Embracing technology	Investing in capability building
Remote working	Low sector appeal	Uplifting sector image	
Key stakeholders			
Organisations	IHLs	Professional bodies/government agencies	Individuals

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Recommendation 5 – Elevate the accounting practices sector's image and appeal to attract the best talent



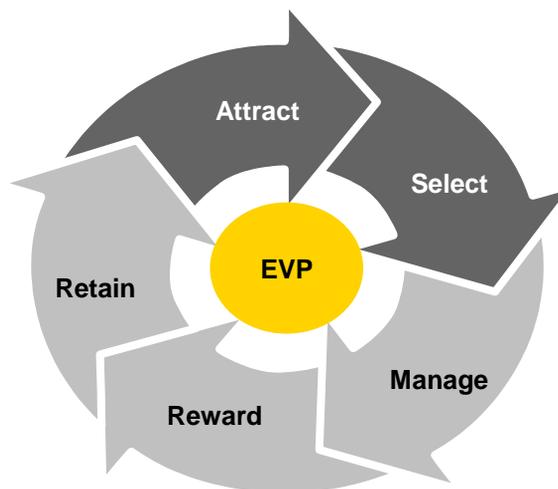
Recommendation 5.1: Re-evaluate Employer Branding and Employee Value Proposition (EVP)

- Accounting practices play a key role in uplifting sector appeal and employers should rethink their **Employer Branding strategy and Employee Value Proposition (EVP)** to differentiate themselves from their competitors. Hence, accounting practices should actively **define and differentiate the value** that they can offer to their employees and communicate consistently to potential and existing employees. Additionally, accounting practices should take active steps to align and integrate human resources (HR) policies and practices to ensure consistency with their EVP. HR policies and practices should be understood in a comprehensive manner, covering all major areas, to enhance their ability to attract and retain talent as an employer of choice
- Given the manpower crunch within the sector, **Compensation and Benefits strategy** should be an **area to consider** (e.g. increasing starting salary, accelerated progression for interns who have completed a longer stint, flexible benefits plan etc.) for the sector to remain competitive
- As more employees start returning to the workplace, organisations should consider **offering employees flexible work options** (e.g. hybrid work environment) as this can be part of an EVP plan to increase talent attraction and retention. However, organisations need to be mindful and ensure practitioners are equipped with the necessary skills to **effectively engage clients and manage teams virtually**. In a hybrid work setting, the management team will require new skills to manage, communicate, engage, coach and evaluate teams

Legend of challenges Technology/Digitalisation journey Remote working Key stakeholders Organisations		Changing client expectations Low sector appeal IHLS Professional bodies/government agencies		Legend of strategic thrusts Embracing technology Investing in capability building Uplifting sector image Individuals	
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Recommendation 5 – Elevate the accounting practices sector's image and appeal to attract the best talent

Recommendation 5.1: Re-evaluate Employer Branding and Employee Value Proposition (EVP) (cont'd)



Attract:

- Clearly communicate desired attributes by candidate profile
- Engage candidate in broad value, not just remuneration
- Establish employment expectations

Retain:

- Reduce turnover by differentiating organisation's offer against competing external offers
- Strengthen rewards and career progression system to increase talent attraction competitiveness

Reward:

- Deliver on the tangible and intangible components of the employment offer, driving engagement and commitment
- Reinforce broad-based value of organisational employment

Select:

- Refine selection criteria to target applicants who are culturally aligned

Manage:

- Align organisational strategies and processes to overarching value proposition
- Perpetuate desired culture through aligned and consistent EVP messaging

Legend of challenges

- Technology/Digitalisation journey
- Remote working



- Changing client expectations
- Low sector appeal



Legend of strategic thrusts

- Embracing technology
- Investing in capability building
- Uplifting sector image

Key stakeholders

- Organisations
- IHLs



- Professional bodies/government agencies



- Individuals

Recommendation 5 – Elevate the accounting practices sector's image and appeal to attract the best talent

Recommendation 5.1: Re-evaluate Employer Branding and Employee Value Proposition (EVP) (cont'd)

Designing an EVP for an organisation

1. Lay the foundation

- ▶ Establish the principles to support the EVP
- ▶ Establish the employment elements to be considered for including in EVP



2. Build the evidence base

Collect evidence through surveys, focus groups, etc. to understand:

- ▶ The preferences of its people
- ▶ What the organisation is currently doing well in
- ▶ The unique characteristics of the organisation
- ▶ The competitive environment



3. Design the EVP

- ▶ The EVP must take into account what is important to people, what the organisation can deliver and its unique characteristics
- ▶ Consideration is given to brand alignment



4. Implement and maintain the EVP

- ▶ Assign ownership and resources to ensure that policy & processes are constantly aligned to EVP
- ▶ Market and communicate the EVP
- ▶ Review the EVP



Legend of challenges

- Technology/Digitalisation journey
- Remote working



- Changing client expectations
- Low sector appeal



Legend of strategic thrusts

- Embracing technology
- Investing in capability building
- Uplifting sector image

Key stakeholders

- Organisations
- IHLs



- Professional bodies/government agencies

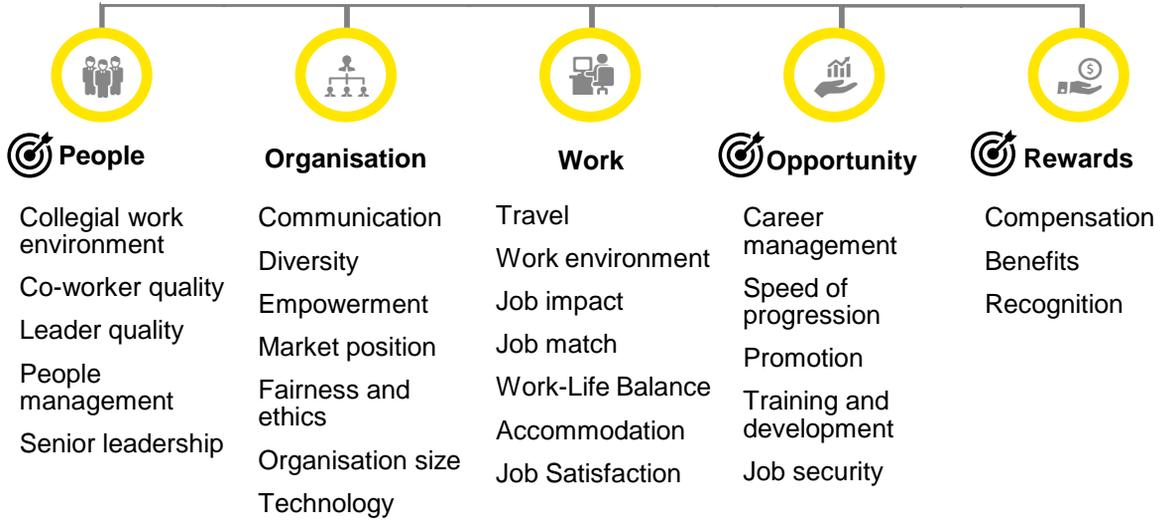


- Individuals

Recommendation 5 – Elevate the accounting practices sector's image and appeal to attract the best talent

Recommendation 5.1: Re-evaluate Employer Branding and Employee Value Proposition (EVP) (cont'd)

Consider the following employment elements that will be relevant for your unique EVP



As shared during our industry outreach, SMPs have finite resources and time. Hence, they should leverage their strengths and **prioritise "People", "Opportunity" and "Rewards"** to attract the best talent to join their accounting practices

Implementing EVP would bring change to the HR practices of the organisation



Legend of challenges Technology/Digitalisation journey Remote working Changing client expectations Low sector appeal		Legend of strategic thrusts Embracing technology Investing in capability building Uplifting sector image	
Key stakeholders Organisations IHLs		Professional bodies/government agencies Individuals	

Tax compliance experience paves the way for Mairah to provide advisory services to help her clients save costs



Nurul Ummairah Binte Mustafa
Tax Senior, BDO Singapore

“As tax practitioners, we possess a global world view and apply them to the evolving tax environment, so as to provide insightful tax advice to our clients

Mairah started her career with the BDO tax team 3 years ago and shares that her role is challenging, often requiring creativity and problem-solving. She has always been interested in numbers and decided to pursue a degree in Accounting & Finance, after completing her Design diploma. She finds a great sense of satisfaction when she is able to provide taxation advice to clients, which in turn helps them enjoy cost-savings through well-informed tax planning strategies.

Technology will be an enabler to facilitate greater collaboration

Mairah explains that moving forward, tax practitioners will leverage technology tools to facilitate greater collaboration amongst teams and businesses, thus driving greater efficiencies. Tools such as a centralised cloud platform allows the team to keep track of the engagement progress and work simultaneously on a workpaper as information is updated in real-time. “We would also be able to refer to softcopy client documents uploaded to the cloud platform instead of heading down to the client’s office, which saves us time”, added Mairah.

Practitioners need to stay abreast of global tax trends that reshape the sector

“With the shift towards advisory services, the importance of **understanding global trends** and how they **impact the sector** will be more critical than ever for practitioners,” shares Mairah.

Mairah explains that as Information and Communications Technology (ICT) changes business models (e.g. rise of e-commerce and online payment services), taxation in the digital economy will be an area of interest for many with the ongoing talks for an international tax system that addresses digitalisation of the global economy.

“Likewise, as Singapore positions itself as a cryptocurrency hub, tax practitioners need to assess the changes in tax policies with regards to digital payment tokens,” explains Mairah. She elaborates that this then enables them to provide advice and recommendations to clients accordingly. Hence, tax practitioners will play a **pivotal role** in **supporting clients** to **navigate the complex global business environment** as it evolves.

Advice to tax practitioners

“This is truly an exciting time for tax practitioners as global trends and emerging technologies will **reshape the tax landscape and create new opportunities**,” exclaimed Mairah.

As businesses look for more **collaborative partnerships**, it is important for tax practitioners to stay abreast of the latest changes in tax regulations and sharpen critical thinking, problem-solving and communication skills for effective engagements with clients.

“Practitioners need to understand how technology tools can be integrated into existing work processes to increase productivity,” said Mairah. She believes that all these are key to enable Tax practitioners to **remain relevant and meet the changing needs of businesses**.

Corporate secretaries' work processes are complemented by technology to achieve higher productivity



Deseree Sim

Manager, Corporate Secretarial, Stone Forest CorpServe Singapore

“ *Advisor to the Board and shareholders* ”

Deseree started her career as a company secretary 14 years ago. It was her internship experience that sparked her interest in this area of work. She shared that she scored better in her law papers than her accounting papers. It was then that she decided to take on a company secretarial role for her internship, as she believed that this was her strength.

Misconceptions about the corporate secretarial profession

“When I first did my internship as a company secretary, my friends were puzzled as they saw little relevance to what I studied. People often associate the role of a company secretary with administrative work such as writing minutes and handling paperwork. However, it was through my internship that I understood how **my knowledge in interpreting figures in accounting statements came into play**,” Deseree shared, “a company secretary plays the **role of an advisor** in board meetings. His or her work involves helping clients resolve shareholders' conflicts, interpreting company legislation, overseeing amendment of the company's constitution, as well as evaluating restructuring possibilities.” She added that with the increased focus on technology and ESG initiatives, practitioners are starting to play an important role in **guiding the Board to navigate through these changes**.

She also emphasised that “we need to **keep abreast of the knowledge in both accounting and law** in order to offer professional advice to our clients and meet their business needs. I get an immense sense of satisfaction every time I resolve issues for my clients!”

How the role of a company secretary has changed with technology

Deseree also shared how technology has **streamlined her work processes and reduced the need for manual processing of data and information**. She mentioned that she used to manually type out materials for annual general meetings. With technology, **data processing time reduced by 50%**. This helps practitioners to take on more challenging assignments and focus on offering advice to clients.

Advice to individuals who are exploring a career in the corporate secretarial profession

“Keep an open mind! There are so many opportunities and areas that company secretaries get to experience. If you are passionate about learning, have an interest in legal work, and aspire to be an advisor, becoming a company secretary is the right fit for you,” Deseree concluded.

Methodology

- 7.1. Project objectives
- 7.2. Defining the accounting practices sector in Singapore
- 7.3. Overall approach and research techniques
- 7.4. Key stakeholders engaged in the study

Methodology

- 7.1. **Project objectives**
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Project objectives

The objective of the study is to evaluate the **impact of key trends** (megatrends and emerging technologies) on manpower and workplace practices in Singapore-based accounting practices. The focus is on **envisioning future job roles**, to build a future-ready workforce that is equipped with the **right capabilities and skills** to adapt to a constantly evolving environment.

Key objectives of this study include...

1. JOB & SKILLS IMPACT ANALYSIS

To assess the impact of key trends on the **job roles and skills** for Singapore's accounting practices workforce, from 2021 to 2025



Identify **key trends** affecting jobs and skills, and workplace practices in Singapore-based accounting practices in the short-term, medium-term and long-term*



Identify **opportunities** and appropriate **responses to job role disruptions** within the sector, into the sector and out of the sector



Assess **impact** of key trends and COVID-19



Identify **solutions** to assist accounting practices and their workforce to **manage** possible **impact** of key trends



Identify, characterise and analyse **changes to job roles, critical work functions, key tasks and skills** of the workforce in accounting practices

2. MANPOWER STUDY

To analyse how the accountancy **headcount demand and supply** will change over time and propose **recommendations** to close **identified headcount gaps**

3. SELF-ASSESSMENT QUESTIONNAIRE

To create a **comprehensive self-assessment questionnaire** that encompasses insights from the manpower study



Develop a **self-assessment questionnaire** that the workforce in accounting practices can use to guide their upskilling and/or reskilling efforts

*Short-term: Current to 2 years | Medium-term: 2 to 5 years | Long-term: > 5 years

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In-scope functional tracks and accounting practices

Based on the SFw for Accountancy, we identified **ten functional tracks** in accounting practices as depicted below:

Functional Tracks [Adapted from SFw for Accountancy]			Additional functional track outside SFw for Accountancy
Assurance	Tax	Financial Accounting*	Corporate Secretarial**
Risk Advisory***	Mergers and Acquisitions	Financial Forensics	
Restructuring and Insolvency	Internal Audit	Business Valuation	

*Out of scope:

In this study, the following job roles in Financial Accounting and Management Accounting are out of scope as they are typically in-house finance corporate roles and are not services provided by accounting practices¹:

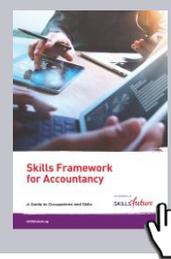
- Chief Financial Controller
- Head of Treasury
- Treasury Manager
- Financial Controller
- Finance Manager
- Business Controller/Finance Director
- Financial Planning and Analysis Manager
- Management Accountant/Financial Planning and Analysis Analyst/Business Analyst
- Accounting Executive

** Note:

Corporate Secretarial will be in-scope as it is a service typically offered by mid-sized accounting firms and several legal firms. However since there is no SFw for Legal currently, this functional track will be included in this study

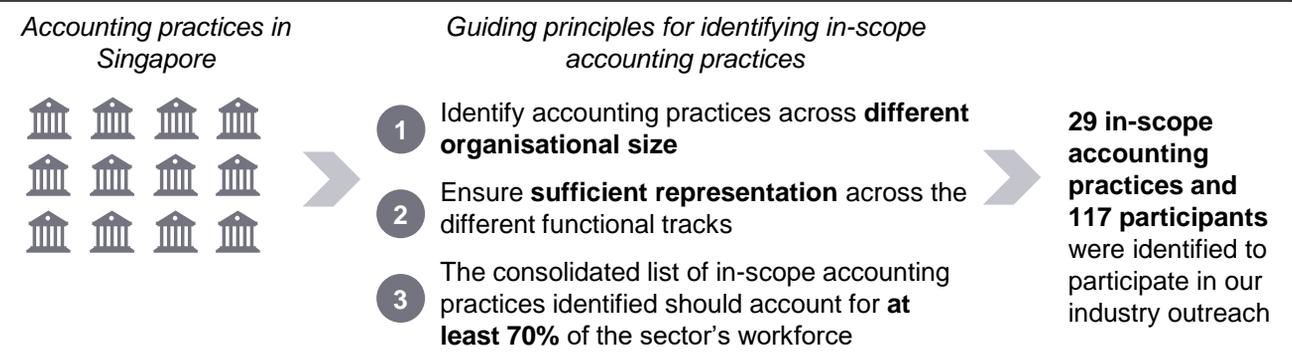
The **SFw for Accountancy** served as the primary reference point to define the scope of the sector, functional tracks and job roles, as well as the existing skills and competencies.

Click on the image below for more information on the SFw.



¹ Note: For the purpose of this Study, "Accounting Practices" refer to Accounting Entities (AEs) and Accounting Services Entities (ASEs). AEs provide audit and assurance services regulated by ACRA under the Accountants Act, as well as other non-audit related accounting services. ASEs do not provide audit and assurance services regulated by ACRA, but provide non-audit related accounting services.

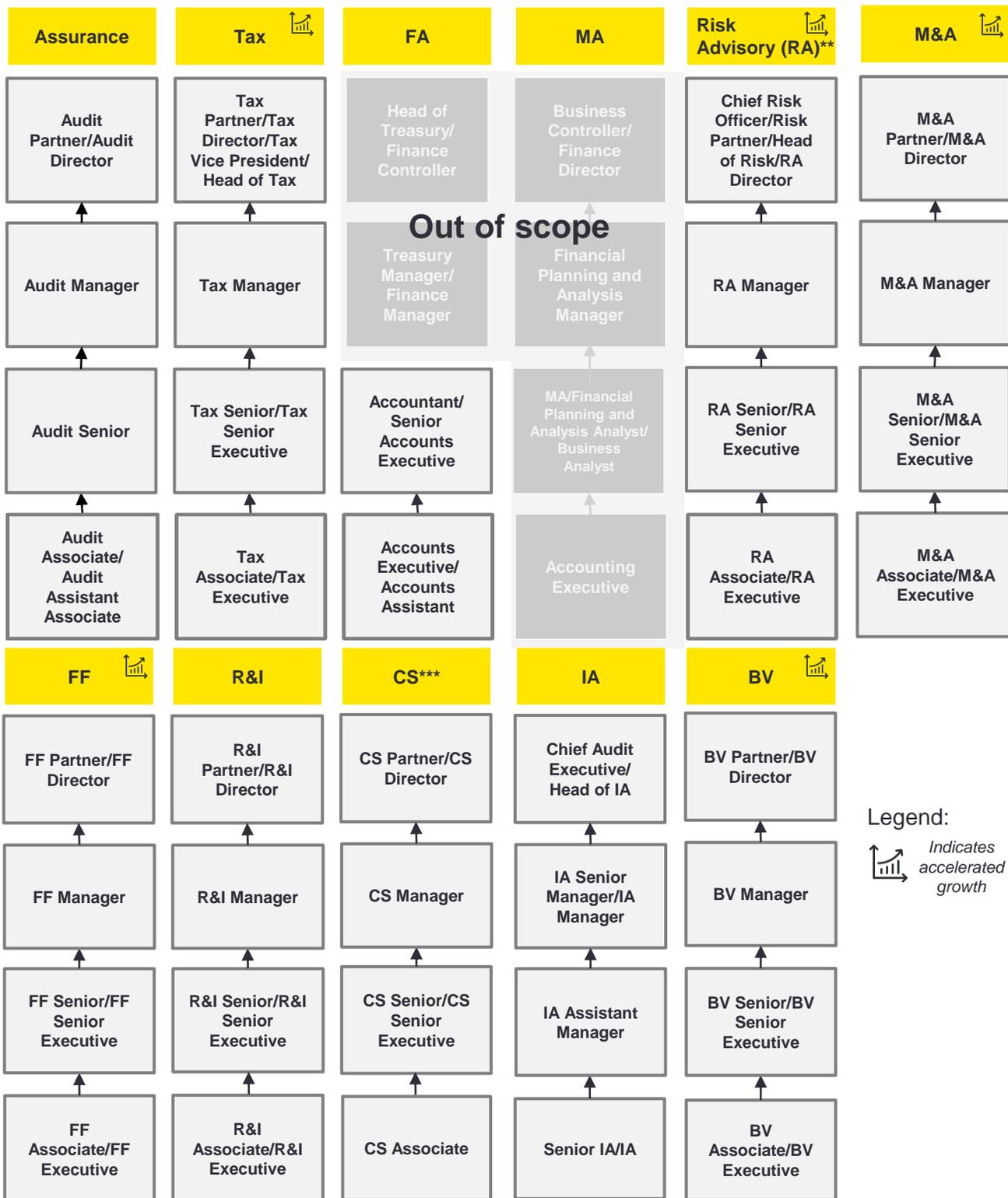
The agencies which commissioned the study and EY jointly identified **29 accounting practices** who are key industry players to participate in this study.



*** Risk Advisory represents the Enterprise Risk Management functional track in SFw for Accountancy | The roles studied pertain to the functional tracks under the Skills Framework for Accountancy. As such, the focus is on the SFw roles which require core accounting skillsets. When studying the impact of technology and key business trends on accountancy job roles, emerging job roles have been identified, some of which require tech skillsets but continue to have grounding in accounting

Defining the accounting practices sector in Singapore: In-scope functional tracks and job roles*

SFw for Accountancy Career Map*



Legend:
 Indicates accelerated growth

* In order of workforce composition size
 ** Risk Advisory represents the Enterprise Risk Management functional track in SFw for Accountancy
 ***Additional functional track outside SFw for Accountancy

Methodology

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Overall approach and research techniques

We adopted a **four-step approach** and utilised various qualitative and quantitative research techniques to generate insights and meet the objectives of the study.

	1. LOCAL AND GLOBAL TRENDS IDENTIFICATION	2. JOBS AND SKILLS IMPACT ANALYSIS	3. MANPOWER STUDY	4. RECOMMENDATION
APPROACH	<p>As a first step, we identified key trends affecting jobs, skills and workplace practices that will have a significant impact on the accounting practices workforce. Next, we conducted in-depth interviews with EY SMEs and key industry players to validate trends and solicit inputs for preliminary impact analysis on jobs, skills and workplace practices. These formed the basis for subsequent impact analysis.</p>	<p>To assess the impact of megatrends and emerging technologies on job roles, we utilised qualitative and quantitative techniques to identify:</p> <ul style="list-style-type: none"> • Job roles that require major job redesign • Future skills required to perform the evolving job roles • Emerging job roles that will be in demand • Mobility opportunities for “High” impact job roles 	<p>We analysed the historical headcount and accountancy graduate trends to identify demand and supply projections for the sector, up to 2025. This exercise leveraged SAC AECensus data, which is an annual survey conducted by SAC to collect data from accounting practices. This was also augmented by data on university graduates from the Ministry of Education (MOE)</p>	<p>As a final step, we used the insights gathered to develop the three strategic thrusts and recommendations, to help the sector move forward.</p>
RESEARCH TECHNIQUES	<p>EY THOUGHT LEADERSHIP AND RESEARCH</p> <ul style="list-style-type: none"> • EY global thought leadership • Academic publications • Research papers 	<p>INSIGHTS FROM INDUSTRY EXPERTS</p> <ul style="list-style-type: none"> • Executive Interviews with industry players • Focus Group Discussions • Consultations with EY Subject Matter Experts 	<p>DATA SOURCES</p> <ul style="list-style-type: none"> • SAC AECensus¹ • MOE Data² • MTI Economic Survey³ • Industry Transformation Map (ITM) for Professional Services⁴ • Accountancy Roadmap⁵ 	

Sources:

1. [SAC AECensus](#) | 2. [MOE Data](#) | 3. [Economic Survey](#) | 4. [Industry Transformation Map](#) | 5. [Accountancy Roadmap](#)

Overall approach and research techniques: Development, engagement and validation process



Engagement Sessions

1. Interviews with Industry Practitioners	2. FGDs with Industry Practitioners
Conducted in-depth interviews with key stakeholders in the accounting practices sector to gather insights on sector trends, skills and capabilities required of the sector and to identify emerging jobs within the sector.	Conducted FGDs with industry practitioners to validate impact assessment on jobs and skills within the sector.
3. FGDs with IHLs and Regulatory Bodies	4. Engagements with Professional Bodies and Managing Partners
Conducted FGDs with key stakeholders to understand trends in accounting cohorts, jobs and in-demand skills, and impact of changing regulations on the sector.	Shared preliminary findings of the study and sought their feedback on partnering opportunities to help the sector grow.

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Overview of key stakeholders*

6 Professional Bodies	29 Accounting Practices	2 Regulatory Bodies	10 Institutes of Higher Learning
<ul style="list-style-type: none"> • Institute of Singapore Chartered Accountants (ISCA) • Chartered Secretaries Institute of Singapore (CSIS) • Institute of Internal Auditors Singapore (IIA Singapore) • Insolvency Practitioners Association of Singapore (IPAS) • Institute of Valuers and Appraisers, Singapore (IVAS) • Singapore Chartered Tax Professionals (SCTP) 	<p>29 accounting practices jointly identified by the agencies which commissioned the study and EY, which account for at least 70% of the accounting practices workforce</p>	<ul style="list-style-type: none"> • Accounting and Corporate Regulatory Authority (ACRA) • Inland Revenue Authority of Singapore (IRAS) 	<ul style="list-style-type: none"> • National University Singapore (NUS) • Nanyang Technological University (NTU) • Singapore Institute of Technology (SIT) • Singapore Management University (SMU) • Singapore University of Social Sciences (SUSS) • Nanyang Polytechnic (NYP) • Ngee Ann Polytechnic (NP) • Singapore Polytechnic (SP) • Temasek Polytechnic (TP) • SIM Global Education (SIM GE)

*Refer to [Appendix III: Industry outreach participant list](#) for list of professional bodies, accounting practices, regulatory bodies and Institutes of Higher Learning (IHLs) engaged

Key stakeholders engaged in the study: Executive interviews

Executive interviews

Across the 27 Executive Interviews* with 29 senior management representatives, we solicited insights on 3 key themes.

THEME #1

Trends impacting the sector

THEME #2

Impact of trends on job roles and skills

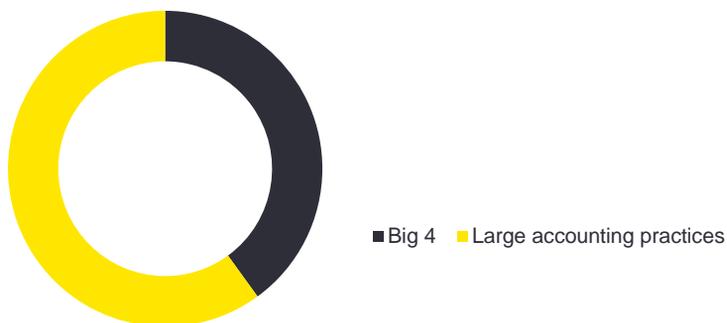
THEME #3

Impact of trends on talent

Representation across key industry players

Across the 10 accounting practices engaged for Executive Interviews, insights were gathered from key industry players who have experienced the impact of emerging trends on the accounting practices sector.

Breakdown by accounting practices size



Representation from different profiles of interviewees

A total of 29 senior management representatives from 10 accounting practices were interviewed. These stakeholders represented different functional tracks and provided relevant insights to assess the impact of key trends on job roles and skills in the accounting practices sector.

Breakdown by profile of interviewees



*Of all the Executive Interviews, 12 sessions were conducted with 12 SMEs in EY
 For further details on sector engagement, see [Appendix III: Our industry outreach participant list](#)

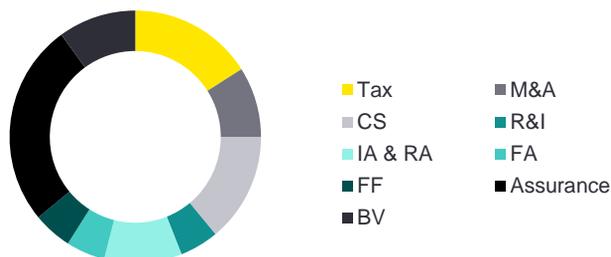
Key stakeholders engaged in the study: Focus group discussions

INDUSTRY FOCUS GROUP DISCUSSIONS | 10 SESSIONS | 71 Participants

Key discussion points

- Impact on respective functional track and impact on jobs and skills given the sector trends (megatrends and emerging technologies)
- Potential mobility opportunities within or outside the accounting practices sector
- Emerging job roles and skills as a result of trends

Breakdown by FT of participants

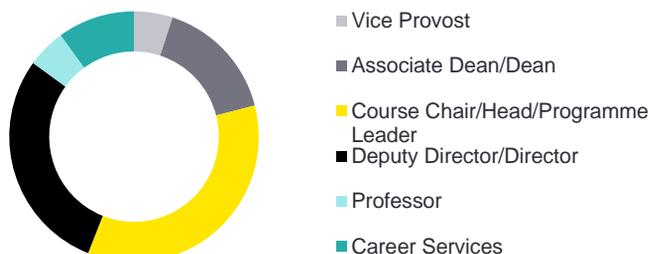


IHL FOCUS GROUP DISCUSSIONS | 2 SESSIONS | 17 Participants

Key discussion points

- Trends observed in accounting cohorts
- Jobs and in-demand skills
- Efforts to prepare graduates for the future of work
- Understand potential career pathways for fresh accounting graduates
- How IHLs, industry and professional bodies can collaborate to prepare graduates

Breakdown by profile of participants



REGULATORY BODIES FOCUS GROUP DISCUSSION | 1 SESSION | 7 Participants

Key discussion points

- Understand areas of concerns due to digitalisation, outsourcing, offshoring and remote working trends
- Upcoming regulatory changes and their impact on skills

Breakdown by department of participants

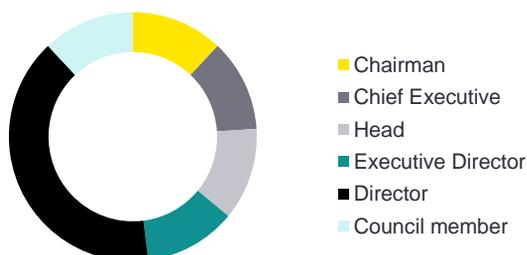


PROFESSIONAL BODIES FOCUS GROUP DISCUSSION | 1 SESSION | 8 Participants

Key discussion points

- Feedback on industry insights and preliminary study findings
- Initiatives that professional bodies are exploring to support the workforce in terms of jobs and skills enhancement

Breakdown by profile of participants



Key stakeholders engaged in the study: Engagements with Managing Partners & Focus group discussions for Self-Assessment Questionnaire (SAQ)

PROFESSIONAL BODIES AND MANAGING PARTNER ENGAGEMENTS | 2 SESSIONS | 18 Participants

Representation across key industry players

Managing Partners and Directors from 17 accounting practices and professional bodies were engaged. Key findings were validated and additional points were raised for the study.

Breakdown by organisation of participants



- Big 4
- Large accounting practices
- Medium accounting practices
- Small accounting practices
- Professional bodies

Key discussion points

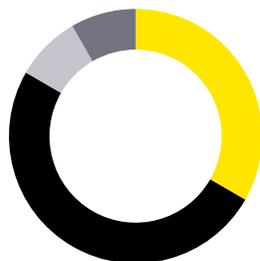
- Identify any additional key trends impacting jobs and skills in the sector
- Share how remote working has changed existing workflows
- Validate job roles that require major job redesign
- Align on headcount demand across each functional track
- Validate emerging job roles and skills observed in this sector
- Discuss potential recommendations to help the sector grow

FOCUS GROUP DISCUSSIONS FOR SELF-ASSESSMENT QUESTIONNAIRE (SAQ) | 2 SESSIONS | 11 Participants

Representation across key industry players

The target audience for this FGD was SMPs, who would be the key users of the SAQ. The session was organised to understand the needs of practitioners and organisations, when determining their upskilling and/or reskilling efforts.

Breakdown of organisations by functional tracks



- Audit
- Tax
- Financial Accounting
- Corporate Secretarial

Key discussion points

- Understand how accounting practices and practitioners determine their upskilling and/or their reskilling needs
- Establish the desired outcome of the SAQ and useful information to guide their upskilling and/or reskilling efforts
- Share sample prototype of the SAQ and gather feedback to improve sample prototype

Appendix

- 8.1. [Job dashboards](#)
- 8.2. [Self-Assessment Questionnaire \(SAQ\) for Organisations](#)
- 8.3. [List of industry outreach participants](#)
- 8.4. [Reference and sources](#)

Appendix I: Job dashboards

1. [Assurance](#)
2. [Tax](#)
3. [Financial Accounting](#)
4. [Risk Advisory*](#)
5. [Mergers and Acquisitions](#)
6. [Financial Forensics](#)
7. [Restructuring and Insolvency](#)
8. [Corporate Secretarial](#)
9. [Internal Audit](#)
10. [Business Valuation](#)

*Risk Advisory represents the Enterprise Risk Management functional track in SFw for Accountancy

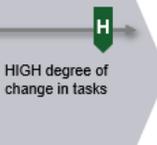
A guide on how to read the job dashboard for each job role (1/2)

Trends impacting this role

- List the emerging technologies and megatrends impacting job role
- This provides an overview of all the trends impacting the role. Details on the impacts are explained in the “Future view of job tasks”

ASSURANCE [Back to Job Dashboard summary](#)

1 Job dashboard – Audit Associate/Audit Assistant Associate (1/2) [Contents](#) [Section Top](#)

Trends impacting this role				Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	 <p>HIGH degree of change in tasks</p>
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation	

Impact Assessment

- Provide a summary view of impact on the job role, as a result of emerging technologies and megatrends

Note

High: **major** job redesign required

Medium: **moderate** job redesign required

Low: **minimal** job redesign required

Responsibilities of the role today
Today, this job role is responsible for undertaking specific stages of the audit work based on the assigned audit plan. Job holders focus on audit work processes based on a range of known solutions to familiar problems and testing methodologies aligned to the latest accounting standards.

Responsibilities of the role today

- Provide an overview of the responsibilities performed by job holders today

Job tasks today	Impact at task-level/Future view of job tasks	Time horizon
Execute audit work-steps under supervision in compliance with professional standards	<p>H</p> <ul style="list-style-type: none"> Intelligent Automation will enable the automation of mundane and repetitive tasks such as bank, accounts receivables and accounts payable confirmations, enabling focus to shift to analysing trends and highlighting anomalous areas in more complex audit sections 	<ul style="list-style-type: none"> Short-term
Obtain evidence to validate information, check for accuracy and flag significant auditing issues to the team for resolution	<p>H</p> <ul style="list-style-type: none"> Data Analytics enables the analysis of large datasets of general ledgers and accounts, reducing the amount of vouching work required to validate and review the accuracy of information against accounts Deep Learning Algorithms can be utilised to study past trends in order to pick up anomalous samples and select more targeted samples instead of random samples per current audit methodologies Focus shift to investigating, performing further tests and client interviews on anomalous samples flagged out by AI 	<ul style="list-style-type: none"> Short-term
Support engagement team and communicate with clients to understand clients' processes and controls	<p>M</p> <ul style="list-style-type: none"> Cloud Computing will enable real-time digital archival of audit workpapers on a shared platform instead of physical archival in filing rooms. This will facilitate team collaboration and efficiencies during engagement completion in view of remote working due to COVID-19. However, managing underlying cybersecurity risks to protect confidential information is important Human intervention will remain critical to understanding accounting issues, processes and test clients' efficacies in controls. Job holders will relay these information to the team to discuss appropriate solutions 	<ul style="list-style-type: none"> Short-term
Identify ethical conflicts during the audit process and act in accordance to professional standards	<p>M</p> <ul style="list-style-type: none"> Changing client expectations will drive the need for a deep understanding of the rapid change in accounting standards and how it will impact audit work processes to ensure that accounting treatments are compliant with regulations Professional judgment and critical thinking remain important to apply accounting concepts to these changes and identify any ethical conflicts during the audit process 	<ul style="list-style-type: none"> Short-term

Time horizon of impacts

- Provide the time horizon of the impact on the job tasks
- Short-term: Current to 2 years
- Medium-term: 2 to 5 years
- Long-term: More than 5 years

Future view of job tasks

- Provide an overview of the impact at the job task level, as a result of emerging technologies and megatrends

Job Tasks today

- Depicts the current broad duties and tasks performed by the job holder

Impact at task-level

- Provide a view of the impact at the job task level, as a result of emerging technologies and megatrends

A guide on how to read the job dashboard for each job role (2/2)

ASSURANCE

[Back to Job Dashboard summary](#)

1 Job dashboard – Audit Associate/Audit Assistant Associate (2/2)

[Contents](#)
[Section Top](#)

Trends impacting this role				Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	<p>HIGH degree of change in tasks</p>
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation	

Workforce Challenges

Responsibilities of the role in the future

Moving forward, this job role will leverage Intelligent Automation to automate repetitive and process-based tasks while AI & Analytics will analyse transactions to reduce the amount of manual vouching required. Job holders' focus will shift to managing automation and its deliverables as well as interpreting the results of data analytics. Human intervention is still required to ensure that testing methodologies are aligned with the latest accounting standards.

Responsibilities of the role in the future

- Provide an overview of the responsibilities to be performed by job holders moving forward

Technical Skills (TSC) Required

Accounting Standards	Level 4	Financial Statements Analysis	Level 4
Auditing and Assurance Standards	Level 4	Internal Controls	Level 3
Auditor Independence	Level 4	Macroeconomic Analysis	Level 3
Business Acumen	Level 4	Professional and Business Ethics	Level 3
Cyber Security	Level 3	Professional Skepticism and Judgment	Level 3
Data Analytics	Level 3	Programming and Coding	Level 2
Data Governance	Level 3	Project Execution and Control	Level 2
Digital Technology Environment Scanning	Level 3	Risk Assessment	Level 4
Engagement Execution	Level 4	Stakeholder Management	Level 3
Engagement Quality Control	Level 4	Taxation Laws	Level 3

Technical Skills (TSC) Required

- The Technical Skills and Competencies (TSCs) comprise occupational/job-specific knowledge, skills and abilities that a person is expected to have to perform his job tasks (adapted from SFw for Accountancy)

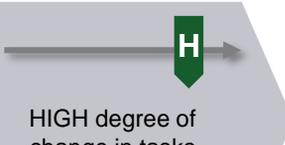
Critical Core Skills (CCS) Required

Customer Orientation	Basic	Digital Fluency	Intermediate
Communication	Basic	Problem Solving	Basic
Collaboration	Basic		

Critical Core Skills (CCS) Required

- The Critical Core Skills (CCS) are transferable skills that facilitate cross-sector employability (adapted from SFw for Accountancy)

1 Job dashboard – Audit Associate/Audit Assistant Associate (1/2)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	 HIGH degree of change in tasks
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role today

Today, this job role is responsible for undertaking specific stages of the audit work based on the assigned audit plan. Job holders focus on audit work processes based on a range of known solutions to familiar problems and testing methodologies aligned to the latest accounting standards.

Job tasks today	Impact at task-level/Future view of job tasks	Time horizon
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Execute audit work-steps under supervision in compliance with professional standards	<p>H</p> <ul style="list-style-type: none"> Intelligent Automation will enable the automation of mundane and repetitive tasks such as bank, accounts receivables and accounts payable confirmations, enabling focus to shift to analysing trends and highlighting anomalous areas in more complex audit sections 	<ul style="list-style-type: none"> Short-term
Obtain evidence to validate information, check for accuracy and flag significant auditing issues to the team for resolution	<p>H</p> <ul style="list-style-type: none"> Data Analytics enables the analysis of large datasets of general ledgers and accounts, reducing the amount of vouching work required to validate and review the accuracy of information against accounts Deep Learning Algorithms can be utilised to study past trends in order to pick up anomalous samples and select more targeted samples instead of random samples per current audit methodologies Focus shift to investigating, performing further tests and client interviews on anomalous samples flagged out by AI 	<ul style="list-style-type: none"> Short-term
Support engagement team and communicate with clients to understand clients' processes and controls	<p>M</p> <ul style="list-style-type: none"> Cloud Computing will enable real-time digital archival of audit workpapers on a shared platform instead of physical archival in filing rooms. This will facilitate team collaboration and efficiencies during engagement completion in view of remote working due to COVID-19. However, managing underlying cybersecurity risks to protect confidential information is important Human intervention will remain critical to understanding accounting issues, processes and test clients' efficacies in controls. Job holders will relay these information to the team to discuss appropriate solutions 	<ul style="list-style-type: none"> Short-term
Identify ethical conflicts during the audit process and act in accordance to professional standards	<p>M</p> <ul style="list-style-type: none"> Changing client expectations will drive the need for a deep understanding of the rapid change in accounting standards and how it will impact audit work processes to ensure that accounting treatments are compliant with regulations Professional judgment and critical thinking remain important to apply accounting concepts to these changes and identify any ethical conflicts during the audit process 	<ul style="list-style-type: none"> Short-term

1 Job dashboard – Audit Associate/Audit Assistant Associate (2/2)

[Contents](#)[Section Top](#)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	 HIGH degree of change in tasks
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role in the future

Moving forward, this job role will leverage Intelligent Automation to automate repetitive and process-based tasks while AI & Analytics will analyse transactions to reduce the amount of manual vouching required. Job holders' focus will shift to managing automation and its deliverables as well as interpreting the results of data analytics. Human intervention is still required to ensure that testing methodologies are aligned with the latest accounting standards.

Technical Skills (TSC) Required

• Accounting Standards	Level 4	• Financial Statements Analysis	Level 4
• Auditing and Assurance Standards	Level 4	• Internal Controls	Level 3
• Auditor Independence	Level 4	• Macroeconomic Analysis	Level 3
• Business Acumen	Level 4	• Professional and Business Ethics	Level 3
• Cyber Security	Level 3	• Professional Skepticism and Judgment	Level 3
• Data Analytics	Level 3	• Programming and Coding	Level 2
• Data Governance	Level 3	• Project Execution and Control	Level 2
• Digital Technology Environment Scanning	Level 3	• Risk Assessment	Level 4
• Engagement Execution	Level 4	• Stakeholder Management	Level 3
• Engagement Quality Control	Level 4	• Taxation Laws	Level 3

Critical Core Skills (CCS) Required

• Customer Orientation	Basic	• Digital Fluency	Intermediate
• Communication	Basic	• Problem Solving	Basic
• Collaboration	Basic		

1 Job dashboard – Audit Senior (1/2)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role today

Today, this job role is responsible for leading audit engagements including the planning, performing and reviewing of audit work performed by the associates and concluding the engagement. Job holders work closely with teams to execute the audit plan and manage expectations of clients and managers/partners to ensure timely deliverables.

Job tasks today	Impact at task-level/Future view of job tasks	Time horizon
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Identify clients' business and key audit risks, analyse the impact of the changing business environment on clients and plan the audit	<p>M</p> <ul style="list-style-type: none"> Rapid change in accounting standards and market environment will require job holders to consider a broader range of risks that may impact clients' accounts, and plan the audit to adequately test these risks Tasks will broaden to understand new audit technology tools and incorporate them into the audit plan to ensure timely completion 	<ul style="list-style-type: none"> Short-term
Perform assurance engagement and complete audit financial statement and disclosures	<p>H</p> <ul style="list-style-type: none"> Intelligent Automation will enable the automation of mundane and repetitive tasks and focus will shift to reviewing deliverables and resolving complex issues highlighted by associates through fieldwork AI will enable the preparation of first draft of audited financial statements based on pre-determined formulas. Role will review, refine and prepare complex segments of audit financial statements and disclosures Tasks will broaden to factor in accounting standards changes and implications of COVID-19 into audit financial statements and disclosures to ensure compliance 	<ul style="list-style-type: none"> Short-term
Obtain evidence to validate, review accuracy of the information, and propose resolution to significant accounting and audit issues	<p>M</p> <ul style="list-style-type: none"> AI & Analytics will enable the analysis of large populations of audit-relevant data to present a more holistic view of business activities, providing roles with clear identification of trends and anomalies in business processes and controls to assist job holders in asking pertinent questions when reviewing the accuracy of information Focus shifts to resolving complex audit issues and proposing resolutions to significant accounting and audit issues 	<ul style="list-style-type: none"> Short-term
Communicate with cross-functional teams and clients, and coach junior team members on technical competency	<p>M</p> <ul style="list-style-type: none"> Changing client expectations will drive the need for a deep understanding of changes in accounting standards and how it will impact the audit plan and methodologies to ensure that accounting treatments are compliant with regulations COVID-19 government payouts to support businesses have resulted in additional tasks required to understand its' accounting nature, guide clients on how to present these accounts and guide teams on the new audit work processes Role continues to coach junior team members although the ways of coaching have changed to virtual platforms 	<ul style="list-style-type: none"> Short-term

1 Job dashboard – Audit Senior (2/2)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	 MEDIUM degree of change in tasks
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role in the future

Moving forward, this job role will leverage Intelligent Automation, AI & Analytics and outsourcing/offshoring resources to perform simpler segments of audit activities. Job holders will review audit work performed by associates, technology and outsourcing/offshoring team and resolve complex audit issues. Human intervention is required to manage the changing client expectations, understand how changing regulations and COVID-19 impact audit work processes and coach their teams.

Technical Skills (TSC) Required

• Accounting Standards	Level 5	• Engagement Quality Control	Level 4
• Auditing and Assurance Standards	Level 4	• Engagement Review	Level 4
• Auditor Independence	Level 4	• Financial Statements Analysis	Level 4
• Business Acumen	Level 4	• Internal Controls	Level 4
• Change Management	Level 4	• Macroeconomic Analysis	Level 3
• Conflict Management	Level 4	• Professional and Business Ethics	Level 4
• Cyber Security	Level 4	• Professional Skepticism and Judgment	Level 4
• Data Analytics	Level 3	• Programming and Coding	Level 2
• Data Governance	Level 3	• Project Execution and Control	Level 3
• Digital Technology Environment Scanning	Level 3	• Risk Assessment	Level 4
• Engagement Completion and Reporting	Level 4	• Stakeholder Management	Level 4
• Engagement Execution	Level 4	• Taxation Laws	Level 4
• Engagement Planning	Level 5		

Critical Core Skills (CCS) Required

• Communication	Intermediate	• Developing People	Intermediate
• Collaboration	Intermediate	• Sense Making	Intermediate
• Digital Fluency	Advanced		

1 Job dashboard – Audit Manager (1/2)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	<p>MEDIUM degree of change in tasks</p>
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role today

Today, this job role is responsible for managing a portfolio of engagements and ensuring the delivery of high quality audit services. Job holders provide leadership on client acceptance processes, engagement planning, execution and conclusion of audit engagements. Job holders maintain client relationships and identify new business opportunities for the audit practice.

Job tasks today	Impact at task-level/Future view of job tasks	Time horizon
Develop audit plan and with consideration of risks and changes in accounting standards	<p>M</p> <ul style="list-style-type: none"> Assess the risks in the market environment and changes in accounting standards when developing audit plans Tasks will broaden to understand new technology tools used for audit, and assess the efficacy of incorporating them into the audit plan in consideration of the engagement budget 	<ul style="list-style-type: none"> Medium to long-term
Ensure completion of overall engagement including the audited financial statements and disclosures	<p>M</p> <ul style="list-style-type: none"> Review the team’s audit workpapers and consolidated financial statements including deliverables from technology tools, interpret analytics and understand technology outputs to analyse these deliverables Understand the implications of new accounting standards and treatment of COVID-19 payouts to financial statements and disclosures 	<ul style="list-style-type: none"> Short-term
Apply professional skepticism, evaluate audit documentation for quality/compliance with accounting standards, and analyse resolutions to significant audit issues	<p>L</p> <ul style="list-style-type: none"> Review and ensure audit documentation and deliverables are in compliance to the latest accounting standards Leverage their deep institutional knowledge in accounting, clients and markets to analyse resolutions to significant accounting and auditing issues 	<ul style="list-style-type: none"> Short-term
Manage engagement teams, timelines, budgets and client expectations, as well as expand business development opportunities	<p>M</p> <ul style="list-style-type: none"> Manage changing client expectations in terms of engagement fees and audit fieldwork timelines in view of technology tools used for audit and offshoring endeavours while maintaining good client relationships In line with changes in new accounting standards, clients expect more advisory on accounting treatments for new accounting standards Professional judgement and critical thinking remain important to identify business opportunities based on an in-depth understanding of changing accounting standards, competitors’ service offerings and clients’ accounting needs 	<ul style="list-style-type: none"> Short-term

1 Job dashboard – Audit Manager (2/2)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role in the future

Moving forward, the job role will leverage consolidated insights from AI & Analytics for a more comprehensive view to provide advisory services on audits and business processes to clients. Human intervention will be required to understand how technology can be integrated into audit work processes and how changing client expectations and regulations will impact audits. Job holders need to be able to assess the impact, analyse risks and provide leadership to the team.

Technical Skills (TSC) Required

• Accounting Standards	Level 5	• Engagement Execution	Level 5
• Auditing and Assurance Standards	Level 5	• Engagement Planning	Level 5
• Auditor Independence	Level 5	• Engagement Quality Control	Level 5
• Business Acumen	Level 5	• Engagement Review	Level 5
• Business Development	Level 5	• Financial Statements Analysis	Level 5
• Business Innovation and Improvement	Level 4	• Internal Controls	Level 5
• Change Management	Level 5	• Macroeconomic Analysis	Level 4
• Conflict Management	Level 5	• Professional and Business Ethics	Level 5
• Cyber Security	Level 4	• Professional Skepticism and Judgment	Level 4
• Data Analytics	Level 4	• Programming and Coding	Level 3
• Data Governance	Level 4	• Project Execution and Control	Level 4
• Digital Technology Environment Scanning	Level 5	• Risk Assessment	Level 5
• Disruption Management	Level 5	• Stakeholder Management	Level 5
• Engagement Completion and Reporting	Level 5	• Taxation Laws	Level 5

Critical Core Skills (CCS) Required

• Communication	Intermediate	• Developing People	Intermediate
• Collaboration	Intermediate	• Sense Making	Intermediate
• Digital Fluency	Advanced		

1 Job dashboard – Audit Partner/Audit Director (1/2)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	<p>LOW degree of change in tasks</p>
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role today

Today, this job role is responsible for steering the audit practice to achieve its business goals and objectives by formulating technical and strategic directions to drive change. Job holders provide strategic vision and leadership to the practice in order to develop and strengthen capabilities and culture.

Job tasks today	Impact at task-level/Future view of job tasks	Time horizon
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Evaluate the impact of the changing business environment on clients for risk management and Know Your Client purposes as well as drive the audit engagement	<p>M</p> <ul style="list-style-type: none"> AI & Analytics will enable insights consolidation based on the latest market information. Role will reference these insights to evaluate risks arising from the changing business environment, client expectations, accounting standards and the treatment of COVID-19 payouts Drive audit engagement plans and check-in with teams to ensure timely deliverables and comfort in signing off audited financial statements Job holders will focus on driving operational efficiency, which includes looking at opportunities for outsourcing/offshoring and leveraging technology in audit engagements 	<ul style="list-style-type: none"> Medium-term
Conclude and express an audit opinion on the assurance report and translate highly technical information into useful business insights for clients and audit committees	<p>L</p> <ul style="list-style-type: none"> Understand changes in accounting standards, translate these insights based on clients' accounting needs and discuss process improvement opportunities with clients Leverage deep institutional knowledge and professional skepticism to express an audit opinion in the assurance report and conclude the engagement 	<ul style="list-style-type: none"> Short-term
Establish strategic business partnerships and client relationships, expand service offerings, establish quality and risk management procedures and steer transformational change	<p>L</p> <ul style="list-style-type: none"> Stakeholder management and business acumen remain important to establish strategic business partnerships through cross-functional collaboration with other companies/service lines, such as the transactions teams for discounted cashflow services or tax services for clients to create greater synergies in audit engagements Identify business opportunities through an in-depth understanding of changing accounting standards, competitors' service offerings and clients' accounting needs Well-versed in emerging technologies to make strategic decisions on selecting the right technology tools to invest in to drive greater efficiencies for the practice Drive strategic implementations to mitigate workforce challenges such as high attrition rates 	<ul style="list-style-type: none"> Short-term

1 Job dashboard – Audit Partner/Audit Director (2/2)

[Contents](#)[Section Top](#)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	 LOW degree of change in tasks
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role in the future

Moving forward, this job role will continue to be in charge of steering the audit practice to achieve its business goals by formulating technical and strategic directions to drive change and build capabilities of the team. AI & Analytics will be leveraged to keep abreast technology, changes in accounting standards and market conditions to evaluate risks and technology tools to be used. The complexity and rapid changes in technology require job holders to possess more agility in tasks performed.

Technical Skills (TSC) Required

• Accounting Standards	Level 6	• Engagement Planning	Level 6
• Auditing and Assurance Standards	Level 6	• Engagement Quality Control	Level 6
• Auditor Independence	Level 6	• Engagement Review	Level 6
• Business Acumen	Level 6	• Financial Statements Analysis	Level 6
• Business Development	Level 6	• Governance	Level 6
• Business Innovation and Improvement	Level 5	• Internal Controls	Level 6
• Change Management	Level 6	• Macroeconomic Analysis	Level 5
• Conflict Management	Level 6	• Professional and Business Ethics	Level 6
• Cyber Security	Level 4	• Professional Skepticism and Judgment	Level 5
• Data Analytics	Level 5	• Programming and Coding	Level 3
• Data Governance	Level 5	• Project Execution and Control	Level 5
• Digital Technology Environment Scanning	Level 5	• Risk Assessment	Level 6
• Disruption Management	Level 6	• Stakeholder Management	Level 6
• Engagement Completion and Reporting	Level 6	• Taxation Laws	Level 6

Critical Core Skills (CCS) Required

• Communication	Advanced	• Developing People	Advanced
• Developing People	Advanced	• Problem Solving	Advanced
• Digital Fluency	Advanced		

2 Job dashboard – Tax Associate/Tax Executive (1/2)

[Contents](#)[Section Top](#)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	 HIGH degree of change in tasks
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

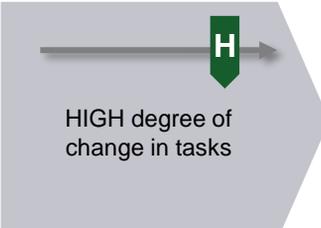
Responsibilities of the role today

Today, this job role is responsible for undertaking tax assignments such as preparing tax computation schedules and various statutory filings promptly, assisting in resolving clients' queries on basic tax issues, drafting possible recommendations on tax matters, and collaborating with cross-functional teams (e.g. audit and advisory service lines) to provide clients with more value-added services.

Job tasks today	Impact at task-level/Future view of job tasks	Time horizon
Research and analyse data to perform tax computations; prepare tax returns and documentations for tax filing	H <ul style="list-style-type: none"> Intelligent Automation will enable the automation of manual capturing and compiling of data entries for regulatory reporting and digitally populate tax returns AI will enable the analysis of large datasets and perform data sampling, estimation and extrapolation on tax computations Focus shifts from performing voluminous tax computations, returns and filing to carrying out complex tax computations as well as providing remediation advice to clients to meet changing client expectations 	<ul style="list-style-type: none"> Short-term
Review responses drafted by the team to manage tax controversies and respond to complex tax authority's queries	M <ul style="list-style-type: none"> AI will enable the automation of responses to the tax authority's common queries. Focus shifts to reviewing and managing deliverables from technology/offshore teams and including complex responses and exceptions Job holders will continue to review drafts by offshore teams on tax controversies but take a step further to meet changing client expectations by referencing insights from AI to frame solutions to pre-empt these tax controversies 	<ul style="list-style-type: none"> Short-term
Review research on implications of local and global issues on clients' tax risks and comply with best practices	M <ul style="list-style-type: none"> Machine Learning will enable a scan through of local, global tax regulations and news sources to regularly update on key changes across tax laws AI will enable the analysis of clients' tax and accounting information and highlight key areas susceptible to the latest tax risks Job holders will use these insights to analyse the severity and implications of potential tax risks, and comply with best practices 	<ul style="list-style-type: none"> Medium-term
Leverage research from associates to draft tax advice, identify tax issues to highlight implications to clients and collate supporting documentation for the tax advice	M <ul style="list-style-type: none"> AI will enable the scanning of large unstructured information across local and global databases to provide insights through succinct dashboards on tax issues, customised for each client Intelligent Automation will enable the collation of supporting documentation to ensure completeness Tap on tax expertise across various regions through offshoring and cross-functional collaboration for greater synergies in providing tax advice (i.e. including those pertaining to international tax and transfer pricing) Leverage insights from AI to analyse, highlight implications and formulate solutions to tax issues faced by clients 	<ul style="list-style-type: none"> Short-term

2 Job dashboard – Tax Associate/Tax Executive (2/2)

[Contents](#)[Section Top](#)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	 <p>HIGH degree of change in tasks</p>
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role in the future

Moving forward, this job role will leverage Intelligent Automation to automate process-based tasks such as tax computations and statutory filings. AI & Analytics will provide draft standardised responses to clients' queries. Job holders' focus will shift to managing automation and its deliverables, and drafting complex responses for clients. Human intervention is required for communicating and framing recommendations on tax matters to meet changing client expectations.

Technical Skills (TSC) Required

• Accounting and Tax Systems	Level 4	• Tax Compliance	Level 3
• Corporate and Business Law	Level 3	• Tax Controversy Management	Level 3
• Digital Technology Environment Scanning	Level 3	• Tax Risk Management	Level 3
• Professional and Business Ethics	Level 3	• Taxation Laws	Level 3
• Stakeholder Management	Level 3	• Transfer Pricing	Level 3
• Tax Advisory	Level 3		

Critical Core Skills (CCS) Required

• Communication	Basic	• Learning Agility	Basic
• Collaboration	Basic	• Sense Making	Basic
• Digital Fluency	Intermediate		

2 Job dashboard – Tax Senior/Tax Senior Executive (1/2)

[Contents](#)[Section Top](#)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	 MEDIUM degree of change in tasks
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role today

Today, this job role is responsible for managing simple tax engagements. The role plans, performs and reviews tax compliance work, ensure timeliness of tax deliverables, assists in preparing tax returns for larger complex entities, prepares transfer pricing documentation and resolves queries on tax issues/disputes from clients and tax authorities.

Job tasks today	Impact at task-level/Future view of job tasks	Time horizon
Research and analyse data to perform complex tax computations, review tax deliverables and identify developments that impact tax compliance	H <ul style="list-style-type: none"> Intelligent Automation will enable relevant tax information to be gathered from various sources and map the client's tax information to the database for compliance checks, as well as perform complex tax computations based on pre-determined inputs of the latest tax regulations and formulas Machine Learning will enable a first cut in reviewing routine tax deliverables that are uploaded real-time to the cloud and pick up common mistakes for further review by job holders AI enables the scanning of large databases of local and global tax regulations to inform job holders on developments that impact tax compliance. Job holders reference these consolidated insights and suggest recommendations to clients, to mitigate these impact on tax compliance Focus shifts to the final review of complex tax deliverables and providing advice to clients 	<ul style="list-style-type: none"> Short-term
Research and draft responses to manage tax controversies and respond to tax authority's queries	M <ul style="list-style-type: none"> AI will enable the extraction of key terms from unstructured data in various local and global tax notices and map these extracted key terms against tax computations, to automate tracking and preparation of common tax authority's queries Focus shifts to overall drafting and managing of tax controversies, as key pointers for common responses to tax authority's queries are automated 	<ul style="list-style-type: none"> Medium-term
Gather information on tax, accounting and the business to identify tax risk areas and ensure adherence to local tax policies	M <ul style="list-style-type: none"> Optical Character Recognition (OCR) enables the scanning of tax documents, policies and clients' data to efficiently gather information on tax, accounting and the business. Machine Learning algorithms will enable the analysis datasets to assist in identifying tax risk areas As clients increasingly outsource tax functions, tax documents are digitalised and stored in the cloud, enabling accounting practices to offshore information-gathering tasks 	<ul style="list-style-type: none"> Medium-term
Research and analyse data to provide information to aid the drafting of tax advice to clients	M <ul style="list-style-type: none"> AI will enable scanning through large unstructured datasets, tax computations and key accounts to consolidate research and provide insights through succinct dashboards to aid the drafting of tax advice to clients 	<ul style="list-style-type: none"> Short-term

2 Job dashboard – Tax Senior/Tax Senior Executive (2/2)

[Contents](#)[Section Top](#)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	 MEDIUM degree of change in tasks
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role in the future

Moving forward, this job role will leverage Intelligent Automation to extract relevant tax information while AI & Analytics will enable the consolidation of insights to inform job holders of the latest tax regulations. Job holders will focus on higher-value tasks such as providing recommendations on tax to meet changing client expectations, reviewing tax deliverables from offshore teams, associates and technology, as well as leveraging technical expertise to resolve complex tax issues.

Technical Skills (TSC) Required

• Accounting and Tax Systems	Level 5	• Tax Compliance	Level 4
• Corporate and Business Law	Level 4	• Tax Controversy Management	Level 4
• Digital Technology Environment Scanning	Level 4	• Tax Risk Management	Level 4
• Professional and Business Ethics	Level 4	• Taxation Laws	Level 4
• Stakeholder Management	Level 4	• Transfer Pricing	Level 4
• Tax Advisory	Level 4		

Critical Core Skills (CCS) Required

• Communication	Intermediate	• Digital Fluency	Advanced
• Collaboration	Intermediate	• Problem Solving	Intermediate
• Developing People	Intermediate		

2 Job dashboard – Tax Manager (1/2)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	<p>LOW degree of change in tasks</p>
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role today

Today, this job role is responsible for reviewing, coaching and providing key technical expertise and operational leadership of teams. Job holders also develop tax solutions, maintain client relationships, identify new business development opportunities, determine and monitor budgets, as well as manage cross-functional and cross-border projects.

Job tasks today	Impact at task-level/Future view of job tasks	Time horizon
Approve tax deliverables, oversee tax compliance and propose recommendations on tax developments that impact clients	<p>M</p> <ul style="list-style-type: none"> Analytics will enable the detection of anomalies and inconsistencies in quantitative tax computations and ensure compliance to tax regulations AI will enable the scanning of global and local news to highlight key changes in tax regulations. Job holders will reference these insights to propose solutions Review deliverables generated from automation such as GST computations, analyse insights derived by AI and propose solutions to provide value-add to clients instead of only performing compliance work 	<ul style="list-style-type: none"> Medium-term
Approve tax advice and responses to manage tax controversies and tax authority's queries	<p>L</p> <ul style="list-style-type: none"> Review of responses to tax advice from AI and offshore teams Manage tax controversies and tax authority's queries require judgement and understanding of the local tax environment With the move from tax compliance to tax advisory, job holders will coach teams on playing a more advisory role 	<ul style="list-style-type: none"> Short-term
Anticipate relevant tax risks, and advise tax implications to aid strategic decisions and draft recommendations on policies	<p>L</p> <ul style="list-style-type: none"> Changing client expectations will continue to drive the need to understand the changing tax landscape, to support clients in navigating through the complex business environment COVID-19 government payouts will impact taxable items and the role is expected to be well-acquainted with these changes to advise client on tax implications Human intervention will remain important to understand clients' tax sophistication levels to customise appropriate responses 	<ul style="list-style-type: none"> Short-term
Identify business development opportunities, propose new service offerings to clients and draft proposals	<p>L</p> <ul style="list-style-type: none"> AI will enable the input of key disclaimers, standard messaging and assist with formatting of proposal templates. However, technical understanding, business acumen and customisation based on respective clients is still required to draft proposals Job holders are still required to network, possess good stakeholder management skills when identifying business development opportunities With increasing cross-functional collaboration, the incumbent will partner other functions such as IT advisory and ESG teams for wider business development scope 	<ul style="list-style-type: none"> Medium-term

2 Job dashboard – Tax Manager (2/2)

[Contents](#)[Section Top](#)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role in the future

Moving forward, this job role will leverage AI & Analytics in consolidating key changes in tax regulations and enabling easier reference for job holders to provide advice to clients. Job holders will focus on reviewing deliverables from offshore and onshore teams, understanding clients' needs and communicating advice to them based on the changes in the tax environment and the impact of COVID-19. Human intervention is still required for technical leadership and resource management.

Technical Skills (TSC) Required

• Accounting and Tax Systems	Level 6	• Tax Advisory	Level 5
• Business Development	Level 5	• Tax Compliance	Level 5
• Corporate and Business Law	Level 5	• Tax Controversy Management	Level 5
• Digital Technology Adoption and Innovation	Level 5	• Tax Risk Management	Level 5
• Digital Technology Environment Scanning	Level 4	• Taxation Laws	Level 5
• Professional and Business Ethics	Level 5	• Transfer Pricing	Level 5
• Stakeholder Management	Level 5		

Critical Core Skills (CCS) Required

• Collaboration	Intermediate	• Developing People	Intermediate
• Decision Making	Intermediate	• Global Perspective	Advanced

2 Job dashboard – Tax Partner/Tax Director/Tax Vice President/Head Of Tax (1/2)

[Contents](#)[Section Top](#)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	<p>LOW degree of change in tasks</p>
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role today

Today, this job role is responsible for providing vision and leadership to build organisational capabilities, steer the tax practice to achieve excellence in the global/local space and drive change. Job holders manage a portfolio of clients, work with other partners on tax engagements and drive innovative ideas to broaden client services.

Job tasks today	Impact at task-level/Future view of job tasks	Time horizon
Oversee tax deliverables, provide direction on compliance standards and evaluate tax policies, procedures and technology	<p>L</p> <ul style="list-style-type: none"> Tax technical knowledge remains key to ensure the quality of deliverables Keep abreast of the latest tax changes, evaluate the implications of COVID-19 on tax treatments and take into account how tax policies, procedures and standards should be updated Job holders will focus on driving operational efficiency, which includes looking at opportunities for offshoring and leveraging technology for more efficient tax engagements and services 	<ul style="list-style-type: none"> Short-term
Lead teams in managing tax controversies and tax authority's queries	<p>L</p> <ul style="list-style-type: none"> Provide direction for teams to manage tax controversies and tax authority's queries, as well as to manage changing client expectations to provide customised recommendations to tax issues 	<ul style="list-style-type: none"> Short-term
Finalise tax positions, formulate the framework to manage and minimise tax risks	<p>M</p> <ul style="list-style-type: none"> AI will enable the analysis of client data against the latest tax regulations to highlight key tax risks. These insights will be referenced to finalise tax positions and formulate the framework to manage the tax risks highlighted by AI Job holders will continue to ensure that advice is suitable for each client by adhering to the standards and risk profile of each client 	<ul style="list-style-type: none"> Short-term
Create procedures and policies to identify development opportunities, strategise for emerging areas of business development and approve proposals	<p>L</p> <ul style="list-style-type: none"> AI will enable job holders to identify opportunities in emerging markets based on insights gathered, allowing job holders to focus on business development Business acumen, foresight and stakeholder management are still required to drive business growth With changing client expectations to provide tax advice, there will be an increasing need for specialised knowledge in various sectors (i.e. R&D and International Tax). Identify opportunities to engage in cross-functional collaboration such that more value-added services can be provided to clients Drive strategic implementations to mitigate workforce challenges such as high attrition rates, build interest and attract talent into the tax workforce 	<ul style="list-style-type: none"> Short-term

2 Job dashboard – Tax Partner/Tax Director/Tax Vice President/Head Of Tax (2/2)

[Contents](#)[Section Top](#)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	 LOW degree of change in tasks
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role in the future

Moving forward, this job role will continue to be in charge of steering the tax practice to greater heights in the global and local space by formulating technical and strategic directions to drive change and build capabilities of the team. AI & Analytics will enable job holders to be informed of key changes in tax regulations and the environment, enabling job holders to drive more meaningful discussions with clients. Job holders will also need to be well-versed in technology to drive technology adoption within the practice.

Technical Skills (TSC) Required

• Accounting and Tax Systems	Level 6	• Tax Advisory	Level 6
• Business Development	Level 6	• Tax Compliance	Level 6
• Corporate and Business Law	Level 6	• Tax Controversy Management	Level 6
• Digital Technology Adoption and Innovation	Level 6	• Tax Risk Management	Level 6
• Digital Technology Environment Scanning	Level 5	• Taxation Laws	Level 6
• Professional and Business Ethics	Level 6	• Transfer Pricing	Level 6
• Stakeholder Management	Level 6		

Critical Core Skills (CCS) Required

• Collaboration	Advanced	• Developing People	Intermediate
• Decision Making	Advanced	• Global Perspective	Advanced

3 Job dashboard – Accounts Executive/Accounts Assistant (1/2)

[Contents](#)

[Section Top](#)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	<p>HIGH degree of change in tasks</p>
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role today

Today, this job role is responsible for supporting clients’ finance departments in carrying out accounting responsibilities. The job role is involved in work that is specific to accounts receivables, accounts payable, tax filing, data compilation, billing, payroll and/or other relevant accounting tasks.

Job tasks today	Impact at task-level/Future view of job tasks	Time horizon
Perform month-end closing activities, maintain accurate financial records and reconcile account balances	<p>H</p> <ul style="list-style-type: none"> Intelligent Automation embedded in accounting software will enable job holders to proactively track financial transactions and receive almost instantaneous reporting and analysis Role will shift to focus on handling more complex exception cases that require additional review and analysis 	<ul style="list-style-type: none"> Short-term
Compile business documentation used in banking processes and input payroll transactions into the client’s accounting system	<p>H</p> <ul style="list-style-type: none"> Cloud Computing enables real-time document sharing for greater team efficiencies Time-consuming tasks will be automated using Intelligent Automation tools, to automate compiling of business documentation and input of transactions into systems, resulting in lesser manual data entries and fewer data input errors AI will enable the identification of anomalies while minimising human error Focus will shift to generating insights and communicating them to relevant stakeholders 	<ul style="list-style-type: none"> Short-term
Enter and retrieve system report data to/from the accounting systems and assign account codes	<p>H</p> <ul style="list-style-type: none"> AI will enable the automation of account codes assignment as it learns from past accounting systems codes Intelligent Automation and transaction processing tools will automate data entry and retrieval of systems report Mundane tasks such as data entry/retrieval and assigning account codes may also be offshored Focus will shift to managing deliverables from technology tools and offshore teams 	<ul style="list-style-type: none"> Medium-term
Use relevant IT systems for data analysis and assist to prepare consolidated financial statements, business activity reports and forecasts for clients	<p>M</p> <ul style="list-style-type: none"> AI will enable the scanning of accounting systems and transactions to analyse data for job holders, which supports the preparation of consolidated financial statements AI and Intelligent Automation (i.e. automated financial reporting tools) will enable job holders to prepare the first draft of consolidated financial statements. Role will shift to focus on including exceptions and reporting on the areas where there are new accounting standards Job holders will leverage data from AI to analyse and highlight key business insights and forecasts 	<ul style="list-style-type: none"> Medium-term

3 Job dashboard – Accounts Executive/Accounts Assistant (2/2)

[Contents](#)[Section Top](#)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	<p>HIGH degree of change in tasks</p>
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role in the future

Moving forward, this job role will leverage Intelligent Automation tools to automate data entry, compilation and tax filing tasks while AI & Analytics will enable the analysis of transactions to provide insights on the client's financial statements. Job holders will shift their focus to provide advice and forecasts to improve clients' business processes and manage the quality of deliverables from automation tools and offshore teams.

Technical Skills (TSC) Required

• Accounting Standards	Level 4	• Financial Reporting Quality	Level 3
• Accounting and Tax Systems	Level 2	• Financial Transactions	Level 3
• Audit Compliance	Level 4	• Group Accounting and Consolidation	Level 4
• Business Innovation and Improvement	Level 3	• Internal controls	Level 2
• Data Analytics	Level 3	• Professional and Business Ethics	Level 3
• Digital Technology Adoption and Innovation	Level 3	• Professional Skepticism and Judgement	Level 3
• Digital Technology Environment Scanning	Level 3	• Professional Standards	Level 3
• Financial Closing	Level 3	• Project Management	Level 3
• Financial Management	Level 2	• Tax Computation	Level 3
• Financial Reporting	Level 2		

Critical Core Skills (CCS) Required

• Communication	Basic	• Problem Solving	Basic
• Collaboration	Basic	• Sense Making	Basic
• Learning Agility	Basic		

3 Job dashboard – Accountant/Senior Accounts Executive (1/2)

[Contents](#)

[Section Top](#)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role today

Today, this job role is responsible for nearly all aspects of accounting and oversees the day-to-day activities of their clients' accounting teams within the finance functions. The job role ensures that their clients' finance functions are well-organised and produces timely and accurate financial statements and management accounts, thus, achieving compliance with corporate policies and statutory requirements.

Job tasks today	Impact at task-level/Future view of job tasks	Time horizon
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Supervise the finance team in financial accounting and corporate reporting	<p>H</p> <ul style="list-style-type: none"> Intelligent Automation will enable the automation of processes such as compiling accurate journal entries and accounting information, thus reducing manual errors Big data analytics will enable the generation of more innovative insights as it covers more comprehensive information Focus shifts to reviewing the outputs of deliverables from technology and handling complex exception cases which require additional technical and domain specific knowledge COVID-19 has augmented the way seniors manage teams and ensure timely deliverables as teams are working remotely 	<ul style="list-style-type: none"> Short-term
Support strategic planning initiatives through budgeting and forecasting	<p>M</p> <ul style="list-style-type: none"> AI will enable the analysis of large data sets to identify patterns which will facilitate forecasting activities Focus shifts to understanding data sets and how they are incorporated into AI tools as well as working to standardise data for a more organised data environment. This could also include cross-functional collaboration with other departments such as IT Focus shifts to providing analyses on financial statements and providing advice and insights for business, market forecasts and process improvements in line with changing client expectations on obtaining management improvement insights 	<ul style="list-style-type: none"> Medium-term
Support working capital management	<p>H</p> <ul style="list-style-type: none"> Intelligent Automation tools will reduce the manual effort needed for basic processes such as accounts payables and receivables. Focus shifts to verifying accounts receivables that are in bad debt Focus will shift from doing calculations to strategic and collaborative tasks such as providing insights for working capital needs and funding strategies Focus will also shift to reviewing deliverables from technology tools and offshore teams, finding strategies to enhance output and providing actionable advice to clients 	<ul style="list-style-type: none"> Short-term
Support internal and external audit activities	<p>M</p> <ul style="list-style-type: none"> AI will enable the scanning of all accounting transactions to screen for anomalies and flag those requiring further review by the role and propose recommendations to be taken into consideration Role will shift to resolving more complex issues and advising on policies and procedures to proactively minimise risks Professional judgement is still required, along with experience in communicating timelines, quality deliverables and solve audit issues as the role manages the accounting team and client expectations 	<ul style="list-style-type: none"> Medium-term

3 Job dashboard – Accountant/Senior Accounts Executive (2/2)

[Contents](#)[Section Top](#)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	 MEDIUM degree of change in tasks
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role in the future

Moving forward, this job role will leverage Intelligent Automation tools to automate simpler accounting entries and use AI & Analytics to highlight anomalies and provide financial insights for job holders to communicate advice and forecasts to clients to meet changing client expectations. Job holders will focus on reviewing deliverables from technology tools, offshore and onshore teams, and rectifying complex accounting issues. Professional judgement is still required to drive improvements in existing processes.

Technical Skills (TSC) Required

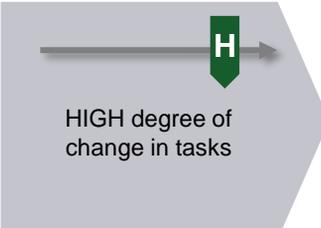
• Business Innovation and Improvement	Level 3	• Financial Reporting Quality	Level 4
• Capital Expenditure and Investment Evaluation	Level 4	• Financial Statements Analysis	Level 4
• Accounting Standards	Level 4	• Group Accounting and Consolidation	Level 4
• Audit Compliance	Level 4	• Internal Controls	Level 3
• Audit Frameworks	Level 4	• Professional and Business Ethics	Level 4
• Accounting and Tax Systems	Level 3	• Professional Skepticism and Judgement	Level 3
• Business Planning	Level 4	• Professional Standards	Level 4
• Conflict Management	Level 3	• Project Management	Level 3
• Data Analytics	Level 3	• Regulatory Compliance	Level 3
• Finance Business Partnering	Level 3	• Stakeholder Management	Level 3
• Digital Technology Adoption and Innovation	Level 3	• Tax Computation	Level 4
• Digital Technology Environment Scanning	Level 3	• Tax Implications	Level 3
• Financial Closing	Level 4	• Taxation Laws	Level 4
• Financial Management	Level 3	• Transactional Accounting	Level 4
• Financial Reporting	Level 4	• Transfer Pricing	Level 3

Critical Core Skills (CCS) Required

• Communication	Intermediate	• Problem Solving	Intermediate
• Collaboration	Intermediate	• Sense Making	Intermediate

4 Job dashboard – Risk Advisory Associate/Risk Advisory Executive* (1/2)

[Contents](#)[Section Top](#)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	 <p>HIGH degree of change in tasks</p>
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role today

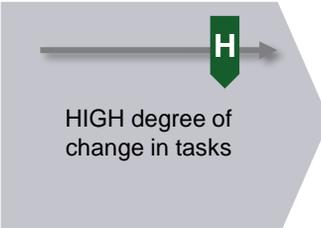
Today, this job role is responsible for supporting the implementation of Risk Advisory* activities, as well as policy and process maintenance. Job holders gather information, monitor risk areas, flag issues within the organisation's systems, as well as prepare documents and reports. The role require job holders to be inquisitive, adaptable and process and task-oriented in carrying out required procedures.

Job tasks today	Impact at task-level/Future view of job tasks	Time horizon
Support drafting of the risk assessment report, recording incidents and documentation of risk policies, frameworks, processes and procedures by gathering information to identify potential risks	<p>H</p> <ul style="list-style-type: none"> Cloud computing tools will streamline information and documents sharing on risk advisory engagements However, there is a need to be mindful of the cybersecurity risks involved with the digitalisation of documents as they may include confidential information Intelligent Automation tools will support the preparation of standardised records of risk advisory engagements 	<ul style="list-style-type: none"> Short-term
Support execution of routine risk mitigation activities such as the verification of day-to-day controls, the periodic monitoring of effectiveness indicators and the resolution of inefficiencies	<p>H</p> <ul style="list-style-type: none"> Intelligent Automation tools will perform repetitive mitigation, controls, and task monitoring The focus will shift from manual, time-intensive research efforts to reviewing the outcomes of technology tools and defining rules for Intelligent Automation systems As AI & Analytics and Intelligent Automation are increasingly expected to be integrated into business processes, continuous check control and monitoring will become more prevalent, thus reducing the manual effort and time required 	<ul style="list-style-type: none"> Short to medium-term
Gather information from client and external market to uncover operational risks	<p>H</p> <ul style="list-style-type: none"> AI & Analytics will enable the scanning, gathering and analysis of data within the organisation and external data to provide a holistic view of the risk landscape 	<ul style="list-style-type: none"> Medium to long-term
Support execution of activities to promote organisational risk culture	<p>M</p> <ul style="list-style-type: none"> Job holders are involved in the preparation and distribution of standardised and personalised communication, which are usually manual and repetitive tasks. Intelligent Automation tools will aid job holders in performing repetitive rule-based tasks. However, human intervention is still required to oversee the automation of the tasks and to define rules for Intelligent Automation systems 	<ul style="list-style-type: none"> Short-term

*Note: Risk Advisory represents the Enterprise Risk Management functional track in SFw for Accountancy

4 Job dashboard – Risk Advisory Associate/Risk Advisory Executive* (2/2)

[Contents](#)[Section Top](#)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	 <p>HIGH degree of change in tasks</p>
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role in the future

Moving forward, this job role will leverage technology to perform repetitive mitigation, controls, and task monitoring, as well as to generate standardised records and reports during the implementation of Risk Advisory* activities. Job holders will focus on defining rules for the Intelligent Automation systems and overseeing the outputs. Human intervention is still required to support the activities on organisational risk culture promotion.

Technical Skills (TSC) Required

• Benchmarking	Level 3	• Governance	Level 4
• Business Continuity Management	Level 3	• Internal Controls	Level 3
• Business Process Analysis	Level 3	• Macroeconomic Analysis	Level 3
• Corporate and Business Law	Level 2	• Professional and Business Ethics	Level 3
• Cyber Security	Level 3	• Project Execution and Control	Level 3
• Data Analytics	Level 3	• Regulatory Risk Assessment	Level 4
• Data Governance	Level 3	• Risk Advisory	Level 4
• Digital Technology Adoption and Innovation	Level 3	• Risk Appetite and Goal Setting	Level 3
• Environment and Social Governance	Level 3	• Risk Management	Level 4
• Financial Analysis	Level 3	• Stakeholder Management	Level 4
• Fraud Risk Management	Level 3	• Systems Thinking	Level 3

Critical Core Skills (CCS) Required

• Communication	Basic	• Problem Solving	Basic
• Collaboration	Basic	• Learning Agility	Basic

*Note: Risk Advisory represents the Enterprise Risk Management functional track in SFw for Accountancy

4 Job dashboard – Risk Advisory Senior/Risk Advisory Senior Executive* (1/2)

[Contents](#)[Section Top](#)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	 MEDIUM degree of change in tasks
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role today

Today, this job role is responsible for implementing Risk Advisory* activities which include identifying and escalating routine and emerging enterprise risks using Risk Advisory* framework procedures, while collaborating with various business units. The role require job holders to have a good understanding of business models, culture and value chain and to possess excellent communication, facilitation and interpersonal skills.

Job tasks today	Impact at task-level/Future view of job tasks	Time horizon
Implement policies and strategies for monitoring, managing, reporting and escalating enterprise-level risk	<p>M</p> <ul style="list-style-type: none"> As AI & Analytics and Intelligent Automation are increasingly expected to be integrated into business processes, continuous control monitoring will become more prevalent. Thus, new ways to identify and assess risks arise such as scenario planning, stress testing, war-gaming, and simulations. Upskilling on the new techniques are required, but the core principles to understand and manage risks remain the same 	<ul style="list-style-type: none"> Short-term
Support client in implementing controls, periodic monitoring, inefficiencies identification and resolution	<p>M</p> <ul style="list-style-type: none"> Human intervention is still required while performing stakeholder management. However, clients expect an increased level of knowledge and skills on emerging technologies and industry for a more meaningful conversation 	<ul style="list-style-type: none"> Short to medium-term
Analyse risk assessment, risk monitoring findings and external market insights to identify potential risks	<p>H</p> <ul style="list-style-type: none"> AI & Analytics and Intelligent Automation will enable the scanning, gathering and analysis of client and external data to provide a holistic view of the risk landscape. Upskilling is required in determining the data required and evaluating the quality of data sources All findings and insights collected to evaluate risks can be stored in the cloud for easier collaboration amongst teams. However, cybersecurity concerns must be considered and addressed 	<ul style="list-style-type: none"> Medium to long-term
Support client in driving implementation of activities to promote organisational risk awareness and to upskill employees to mitigate risk breach incidents	<p>L</p> <ul style="list-style-type: none"> Human intervention is still required as communication skills are key to drive implementation activities. As the range of risks becomes more diverse and specific to each industry and organisation, job holders need to continue to be inquisitive and broaden their industry expertise 	<ul style="list-style-type: none"> Short to medium-term

*Note: Risk Advisory represents the Enterprise Risk Management functional track in SFW for Accountancy

4 Job dashboard – Risk Advisory Senior/Risk Advisory Senior Executive* (2/2)

[Contents](#)[Section Top](#)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	 MEDIUM degree of change in tasks
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role in the future

Moving forward, this job role will still be implementing Risk Advisory* activities which include the identification, monitoring, escalation of routine and emerging enterprise risks according to Risk Advisory* framework procedures. Technology such as Intelligent Automation, AI & Analytics will be leveraged and job holders will focus on interpreting data, communicating with clients on deliverables and developing organisational risk culture promotion materials.

Technical Skills (TSC) Required

• Benchmarking	Level 4	• Governance	Level 4
• Business Continuity Management	Level 3	• Internal Controls	Level 4
• Business Process Analysis	Level 4	• Macroeconomic Analysis	Level 3
• Corporate and Business Law	Level 3	• Professional and Business Ethics	Level 4
• Cyber Security	Level 3	• Project Execution and Control	Level 4
• Data Analytics	Level 3	• Regulatory Risk Assessment	Level 4
• Data Governance	Level 3	• Risk Advisory	Level 4
• Digital Technology Adoption and Innovation	Level 4	• Risk Appetite and Goal Setting	Level 4
• Environment and Social Governance	Level 3	• Risk Management	Level 4
• Financial Analysis	Level 4	• Stakeholder Management	Level 4
• Fraud Risk Management	Level 3	• Systems Thinking	Level 3

Critical Core Skills (CCS) Required

• Communication	Intermediate	• Problem Solving	Intermediate
• Collaboration	Intermediate	• Learning Agility	Intermediate

*Note: Risk Advisory represents the Enterprise Risk Management functional track in SFw for Accountancy

4 Job dashboard – Risk Advisory Manager* (1/2)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	 MEDIUM degree of change in tasks
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role today

Today, this job role is responsible for managing clients' enterprise-wide risks across the different departments. The role develops risk reporting mechanisms and proposes controls that support risk mitigation plans according to enterprise-level frameworks. Job holders require a result-oriented, innovative and analytical mindset. In addition, job holders need to possess broad knowledge of business models and corporate decision-making processes.

Job tasks today	Impact at task-level/Future view of job tasks	Time horizon
Develop policies and strategies for monitoring, managing and escalating enterprise-level risks to control and manage identified priority areas of risks	<p>M</p> <ul style="list-style-type: none"> Emerging technologies open new possibilities to new ways of handling risks, thus making the traditional engagement plans obsolete. Job holders need to stay abreast of all the industry trends Additionally, the scope of risks are expanding and job holders are increasingly expected to account for emerging and future trends instead of focusing in diagnosing existing risks 	<ul style="list-style-type: none"> Medium to long-term
Ensure timely reporting of risk exposure, stress testing and risk assessment findings to relevant stakeholders	<p>M</p> <ul style="list-style-type: none"> Leveraging emerging technologies will reduce the time required to report risk exposure Blockchain will enable an immutable audit trail which reduces the frequency of control checks and AI & Analytics combined with Intelligent Automation facilitate the integration of the control checks into business processes, thus allowing continuous monitoring 	<ul style="list-style-type: none"> Medium to long-term
Analyse client's history of risk-taking and assess risk impact of external markets, industry conditions and changing regulations to guide decision-making and determine need for new or updated risk controls	<p>M</p> <ul style="list-style-type: none"> AI & Analytics will scan, gather and analyse data on the client organisation and external data to provide a holistic view of the risk landscape Human intervention will still be required to make sense of the findings and insights provided by AI & Analytics tools and communicate those insights to clients 	<ul style="list-style-type: none"> Medium to long-term
Develop communication and activities to drive compliance with risk frameworks and policies	<p>L</p> <ul style="list-style-type: none"> Human intervention is required to develop compliance communication and activities. However, risks are increasingly diverse and specific to each industry so job holders need to remain inquisitive and broaden their expertise Job holders need to consider COVID-19 regulation on activities and impact of remote working on communication. Apart from taking COVID-19 into account, the task remains largely unchanged 	<ul style="list-style-type: none"> Short to medium-term

*Note: Risk Advisory represents the Enterprise Risk Management functional track in SFw for Accountancy

4 Job dashboard – Risk Advisory Manager* (2/2)

[Contents](#)[Section Top](#)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	 MEDIUM degree of change in tasks
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role in the future

Moving forward, this job role will continue to manage clients' enterprise-wide risks across the different departments and is expected to develop new risk reporting mechanisms, controls and risk mitigation plans with the aid of emerging technologies. In-depth risk management knowledge is still required to make sense of the findings and insights provided by AI & Analytics tools and provide advisory services to clients.

Technical Skills (TSC) Required

• Benchmarking	Level 5	• Governance	Level 5
• Business Continuity Management	Level 4	• Internal Controls	Level 4
• Business Process Analysis	Level 5	• Macroeconomic Analysis	Level 4
• Corporate and Business Law	Level 4	• Professional and Business Ethics	Level 5
• Cyber Security	Level 3	• Project Execution and Control	Level 5
• Data Analytics	Level 4	• Regulatory Risk Assessment	Level 5
• Data Governance	Level 4	• Risk Advisory	Level 5
• Digital Technology Adoption and Innovation	Level 4	• Risk Appetite and Goal Setting	Level 4
• Environment and Social Governance	Level 3	• Risk Management	Level 5
• Financial Analysis	Level 4	• Stakeholder Management	Level 5
• Fraud Risk Management	Level 3	• Systems Thinking	Level 4

Critical Core Skills (CCS) Required

• Communication	Basic	• Problem Solving	Basic
• Collaboration	Basic	• Learning Agility	Basic

*Note: Risk Advisory represents the Enterprise Risk Management functional track in SFw for Accountancy

4

Job dashboard – Chief Risk Officer/Risk Partner/Head of Risk/Risk Advisory Director* (1/2)

[Contents](#)[Section Top](#)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	<p>LOW degree of change in tasks</p>
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role today

Today, this job role is responsible for collaborating with the client's senior stakeholders, developing and defining enterprise-level policies and frameworks which establish acceptable risk appetites and strategies to maintain the organisation's collective risk exposure. Job holders require strong interpersonal skills and the ability to change undesirable behaviours into more desirable ones.

Job tasks today	Impact at task-level/Future view of job tasks	Time horizon
Lead development of risk policies and frameworks in collaboration with senior stakeholders and the Board	<p>L</p> <ul style="list-style-type: none"> Leading the development of risk policies and frameworks still requires in-depth risk management knowledge and good stakeholder management. The collaboration with the client's senior management will be increasingly challenged by the increased complexity and convergence of risks 	<ul style="list-style-type: none"> Short to medium-term
Evaluate recommended risk thresholds and endorse acceptable Key Risk Indicators (KRI) with inputs from relevant business units and the Board	<p>M</p> <ul style="list-style-type: none"> AI & Analytics can support the evaluation and communication of the risk threshold by facilitating the gathering, analysis, and presentation of the data with data visualisation tools. However, the task still requires the same technical and soft skills 	<ul style="list-style-type: none"> Short to medium-term
Adjust enterprise strategies, policies and frameworks to reflect new and/or changing trends and practices and to ensure that they provide adequate risk coverage	<p>L</p> <ul style="list-style-type: none"> Domain expertise and human intervention are still required to adjust strategies, policies and frameworks more frequently. Due to the fast pace of technology disruption and the emergence of new societal concerns, job holders will be required to adjust the policies and the frameworks more frequently. Additionally, there is increasing emphasis on risk programmes that help to foster risk culture 	<ul style="list-style-type: none"> Short to medium-term
Collaboration with senior management to establish organisational guidelines for employee conduct, technology compliance and operational risk management activities	<p>L</p> <ul style="list-style-type: none"> Job holders need to possess excellent soft skills, wide and in-depth industry expertise in risk management to respond to queries from senior management. The role is increasingly expected to be knowledgeable in multiple emerging risk areas COVID-19 has challenged communication due to remote working arrangements. Job holders need to play a more proactive role to manage, engage and communicate with senior management and stakeholders 	<ul style="list-style-type: none"> Short-term

*Note: Risk Advisory represents the Enterprise Risk Management functional track in SFw for Accountancy

4

Job dashboard – Chief Risk Officer/Risk Partner/Head of Risk/Risk Advisory Director* (2/2)

[Contents](#)[Section Top](#)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role in the future

Moving forward, this job role will continue collaborating with the client's senior stakeholders to develop and define enterprise-level policies and frameworks. Job holders are expected to foster risk culture through Risk Advisory* programmes and leverage technology to improve the evaluation and communication of risks within the firm. Job holders will continue to tap on their expertise and knowledge on the latest trends in the sector to engage clients.

Technical Skills (TSC) Required

• Benchmarking	Level 5	• Governance	Level 5
• Business Continuity Management	Level 4	• Internal Controls	Level 5
• Business Process Analysis	Level 5	• Macroeconomic Analysis	Level 4
• Corporate and Business Law	Level 4	• Professional and Business Ethics	Level 6
• Cyber Security	Level 3	• Project Execution and Control	Level 6
• Data Analytics	Level 4	• Regulatory Risk Assessment	Level 5
• Data Governance	Level 4	• Risk Advisory	Level 6
• Digital Technology Adoption and Innovation	Level 5	• Risk Appetite and Goal Setting	Level 5
• Environment and Social Governance	Level 3	• Risk Management	Level 6
• Financial Analysis	Level 4	• Stakeholder Management	Level 6
• Fraud Risk Management	Level 4	• Systems Thinking	Level 5

Critical Core Skills (CCS) Required

• Developing People	Advanced	• Communication	Advanced
• Decision Making	Advanced	• Collaboration	Advanced
• Transdisciplinary Thinking	Advanced		

*Note: Risk Advisory represents the Enterprise Risk Management functional track in SFw for Accountancy

5 Job dashboard – Mergers and Acquisitions Associate/Mergers and Acquisitions Executive (1/2) [Contents](#)
[Section Top](#)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	<p>MEDIUM degree of change in tasks</p>
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role today

Today, this job role is responsible for the execution of deliverables and working hands-on during the initial research phase, which includes financial statement reviews and analyses, and relevant stakeholder interactions. Job holders must be flexible in handling a wide range of duties throughout the M&A process.

Job tasks today	Impact at task-level/Future view of job tasks	Time horizon
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Conduct market analysis and analyse financial statements	<p>M</p> <ul style="list-style-type: none"> Intelligent Automation will enable a quicker and more consistent way to extract financial information from relevant sources to make the process more efficient Analytics will enable comparison of key financial metrics across previous years to evaluate business performance, resulting in time savings Focus will shift to interpreting, drawing insights from the data instead of performing calculation of financial ratios As repetitive and administrative tasks are offshored to neighbouring countries, job holders can focus their effort on higher-value activities which can act as a talent retention strategy 	<ul style="list-style-type: none"> Short to medium-term
Utilise financial models to gather data and insights, conduct research and highlight potential risks	<p>M</p> <ul style="list-style-type: none"> Analytics will enable the creation of more robust financial models as it takes into account of more sources of information The impact of COVID-19 needs to be taken into consideration when developing financial models and identifying potential risks 	<ul style="list-style-type: none"> Short to medium-term
Assist in preparation of financial information and due diligence matters as well as review contractual matters, tax and accounting guidelines	<p>M</p> <ul style="list-style-type: none"> Analytics and Intelligent Automation enables the preparation of financial information by compiling information quickly and reducing manual input errors Human intervention will remain necessary to handle specific deal-related diligence issues as well as maintaining an updated knowledge of the relevant tax and accounting guidelines Documentations related to the deal can be stored in the cloud to facilitate collaborating efficiency amongst the team and it is important to understand the underlying cybersecurity risks to protect the information stored online 	<ul style="list-style-type: none"> Short-term
Gather requirements for post-integration accounting	<p>L</p> <ul style="list-style-type: none"> Technology (e.g. Cloud Computing) will act as an enabler to support the requirements gathering for post-integration matters. However, job holders will still play an important role as their professional judgment and critical thinking remain important to ensure that this process goes smoothly 	<ul style="list-style-type: none"> Short-term

5

Job dashboard – Mergers and Acquisitions Associate/Mergers and Acquisitions Executive (2/2)

[Contents](#)
[Section Top](#)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role in the future

Moving forward, this job role will leverage technology to support the execution of deliverables and the initial research phase. Intelligent Automation will support information extraction and analytics can provide insights from data. Professional judgement and critical thinking are still required when handling a wide range of duties throughout the M&A process.



Technical Skills (TSC) Required

• Benchmarking	Level 3	• Post-deal Integration Management	Level 3
• Business Acumen	Level 4	• Professional and Business Ethics	Level 3
• Business Development	Level 2	• Project Execution and Control	Level 3
• Business Negotiation	Level 3	• Project Feasibility	Level 3
• Capital Raising	Level 3	• Project Management	Level 3
• Conflict Management	Level 3	• Regulatory Compliance	Level 3
• Corporate and Business Law	Level 3	• Risk Assessment	Level 4
• Financial Analysis	Level 3	• Risk Management	Level 3
• Financial Management	Level 2	• Stakeholder Management	Level 3
• Financial Modelling	Level 3	• Transaction Due Diligence	Level 2
• Financial Statements Analysis	Level 3	• Treasury Management	Level 3
• Information Gathering and Analysis	Level 3	• Valuation	Level 2
• Macroeconomic Analysis	Level 3		

Critical Core Skills (CCS) Required

• Communication	Intermediate	• Problem Solving	Basic
• Digital Fluency	Intermediate	• Transdisciplinary Thinking	Basic
• Global Perspective	Basic		

5

Job dashboard – Mergers and Acquisitions Senior/Mergers and Acquisitions Senior Executive (1/2)

- [Contents](#)
- [Section Top](#)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role today

Today, this job role is responsible for day-to-day operations, from a transaction perspective. Job holders manage M&A processes for client engagements. Job holders are expected to adhere to standards of ethics and maintain quality assurance.

Job tasks today	Impact at task-level/Future view of job tasks	Time horizon
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Consolidate market insights and prepare proposals on financing options	<p>M</p> <ul style="list-style-type: none"> Analytics tools will be used to enhance market insights and data visualisation tools will be leveraged to present findings for deal origination opportunities Human intervention will still be required to structure information and storyboard for proposals in the most suitable manner to meet relevant stakeholders' needs Market insights and proposals can be stored in the cloud to increase collaborative efficiency and minimise the need for manual consolidation. Job holders need to be aware of cybersecurity risks to ensure that the right measures are in place 	<ul style="list-style-type: none"> Short to medium-term
Develop financial models and evaluate financing options including project risks	<p>M</p> <ul style="list-style-type: none"> Intelligent Automation enables faster data and information gathering while reducing the timeline for feasibility evaluation Analytics will enable various scenarios modelling (including COVID-19) for risk assessments. This enables a more data-driven approach to determine the feasibility of financing options 	<ul style="list-style-type: none"> Short to medium-term
Prepare analysis of financial information for diligence discussions with relevant parties and analyse deal specific matters	<p>M</p> <ul style="list-style-type: none"> Intelligent Automation will enable the identification of outliers while analytics tools will be used to improve algorithms, resulting in the ability to analyse more information during due diligence processes Repetitive and administrative tasks can be offshored to neighbouring countries, allowing job holders to focus on generating solutions and providing advice to clients 	<ul style="list-style-type: none"> Short to medium-term
Assist with strategy, planning and execution for post-deal integration including financial report preparation	<p>M</p> <ul style="list-style-type: none"> Analytics tools will support the preparation of financial reports, however, human intervention will remain necessary for understanding future liabilities, supporting negotiation discussions and reviewing financing options post-integration Changing client expectations will also require job holders to increasingly possess multi-disciplinary skills to meet evolving needs of the business environment 	<ul style="list-style-type: none"> Short-term

5 Job dashboard – Mergers and Acquisitions Senior/Mergers and Acquisitions Senior Executive (2/2)

[Contents](#)
[Section Top](#)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	<p>MEDIUM degree of change in tasks</p>
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role in the future

Moving forward, this job role will leverage technology such as Analytics and Intelligent Automation to derive data-driven insights, support information gathering and model various scenarios quickly. Human intervention remains necessary as job holders engage with clients to manage the M&A processes and review the outputs performed by offshore teams and technology tools.

Technical Skills (TSC) Required

• Benchmarking	Level 4	• Post-deal Integration Management	Level 4
• Business Acumen	Level 4	• Professional and Business Ethics	Level 4
• Business Development	Level 3	• Project Execution and Control	Level 4
• Business Negotiation	Level 4	• Project Feasibility	Level 4
• Capital Raising	Level 4	• Project Management	Level 4
• Conflict Management	Level 4	• Regulatory Compliance	Level 3
• Corporate and Business Law	Level 4	• Risk Assessment	Level 4
• Financial Analysis	Level 4	• Risk Management	Level 4
• Financial Management	Level 3	• Stakeholder Management	Level 4
• Financial Modelling	Level 4	• Transaction Due Diligence	Level 3
• Financial Statements Analysis	Level 3	• Treasury Management	Level 4
• Information Gathering and Analysis	Level 4	• Valuation	Level 3
• Macroeconomic Analysis	Level 4		

Critical Core Skills (CCS) Required

• Communication	Intermediate	• Problem Solving	Intermediate
• Digital Fluency	Intermediate	• Transdisciplinary Thinking	Intermediate
• Global Perspective	Intermediate		

5 Job dashboard – Mergers and Acquisitions Manager (1/2)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role today

Today, this job role is responsible for managing transaction activities, generating and supporting the business, conducting quality control, providing technical leadership as well as managing resources for the team. Job holders also oversee the process, which includes sourcing, financial modelling and evaluation of transaction opportunities.

Job tasks today	Impact at task-level/Future view of job tasks	Time horizon
Validate growth strategy proposals, and assess strategic fit of acquisitions or sales	<p>M</p> <ul style="list-style-type: none"> Analytics will enable job holders to draw insights from more sources of data and simulate multiple scenarios, which helps to enhance growth strategy proposals Subject matter expertise will continue to be required to assess strategic fit for acquisitions or sales Proposals will be stored in the cloud to facilitate efficiency of collaboration amongst teams and job holders need to ensure that the necessary plans are in place to mitigate cybersecurity risks 	<ul style="list-style-type: none"> Short to medium-term
Evaluate financial models and validate financing options for project and its financial feasibility	<p>L</p> <ul style="list-style-type: none"> Intelligent Automation and Analytics tools will support the development of financial models and job holders will need to rely on their technical knowledge, while understanding the business needs of clients, to evaluate the feasibility of options Job holders will need to account for COVID-19 and other external events that will impact model validation and scenario planning Identify areas to create value and work with relevant stakeholders to manage risks 	<ul style="list-style-type: none"> Short to medium-term
Participate in diligence discussions and provide advice regarding contractual matters	<p>L</p> <ul style="list-style-type: none"> AI will enable the analysis of historical and pro forma financial information and job holders will need to interpret and draw insights from the information to provide value-added advice and recommendations while protecting clients' interests Human intervention will continue to be required to handle complex cases and contractual matters 	<ul style="list-style-type: none"> Short to medium-term
Manage post-deal integration including planning and providing advice	<p>L</p> <ul style="list-style-type: none"> Human intervention will continue to be required to handle unique post-deal integration matters and to provide advice on consolidation plans, review financial reports and cash flow ratios 	<ul style="list-style-type: none"> Short-term

5 Job dashboard – Mergers and Acquisitions Manager (2/2)

[Contents](#)

[Section Top](#)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role in the future

Moving forward, this job role will leverage insights from Intelligent Automation, Analytics and AI to make more informed decisions when providing advice and recommendations to clients. Human intervention is still required to manage complex M&A cases, contractual matters, generate business pipeline, provide technical leadership and manage resources for the team.

Technical Skills (TSC) Required

• Benchmarking	Level 5	• Post-deal Integration Management	Level 5
• Business Acumen	Level 5	• Professional and Business Ethics	Level 5
• Business Development	Level 4	• Project Execution and Control	Level 5
• Business Negotiation	Level 5	• Project Feasibility	Level 5
• Capital Raising	Level 5	• Project Management	Level 5
• Conflict Management	Level 5	• Regulatory Compliance	Level 4
• Corporate and Business Law	Level 5	• Risk Assessment	Level 4
• Financial Analysis	Level 5	• Risk Management	Level 5
• Financial Management	Level 4	• Stakeholder Management	Level 5
• Financial Modelling	Level 5	• Transaction Due Diligence	Level 4
• Financial Statements Analysis	Level 3	• Treasury Management	Level 5
• Information Gathering and Analysis	Level 5	• Valuation	Level 4
• Macroeconomic Analysis	Level 5		

Critical Core Skills (CCS) Required

• Communication	Advanced	• Problem Solving	Advanced
• Digital Fluency	Advanced	• Transdisciplinary Thinking	Advanced
• Global Perspective	Advanced		

5 Job dashboard – Mergers and Acquisitions Partner/Mergers and Acquisitions Director (1/2)

[Contents](#)
[Section Top](#)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	<p>LOW degree of change in tasks</p>
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role today

Today, this job role is responsible for being in charge of various functions including generating and growing the business, conducting quality control, providing technical leadership as well as sourcing appropriate staff for the team. Job holders are experts in M&A and should possess considerable transaction experience.

Job tasks today	Impact at task-level/Future view of job tasks	Time horizon
Originate deals through regular interactions with key clients within the sector	<ul style="list-style-type: none"> Analytics tools will be leveraged for insights, however, job holders will require good stakeholder management skills and build relationships with key clients Job holders will continue to focus on acting as strategic advisors for deal origination 	<ul style="list-style-type: none"> Short-term
Evaluate project and financial feasibility by defining strategies for model development and risk parameters	<ul style="list-style-type: none"> COVID-19 impact and other disruptive events will require further analysis to determine risk parameters and require updating financial models to reflect these trends 	<ul style="list-style-type: none"> Short-term
Oversee overall due diligence processes, provide advice and recommendations to relevant stakeholders	<ul style="list-style-type: none"> Changing client expectations will continue to drive the need for enhanced advice and recommendations Analytics tools will complement the generation of insights and enhance diligence discussions with various parties, however, domain knowledge, business acumen and ability to communicate concisely will remain necessary 	<ul style="list-style-type: none"> Short-term
Validate and provide advice on post-deal integration plans	<ul style="list-style-type: none"> Human intervention will remain necessary for strategy, planning and execution of post-deal integration or divestiture due to the high degree of customisation and complexity based on individual situations 	<ul style="list-style-type: none"> Short-term

5 Job dashboard – Mergers and Acquisitions Partner/Mergers and Acquisitions Director (2/2)

[Contents](#)
[Section Top](#)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role in the future

Moving forward, this job role will continue to be in charge of generating and growing the business, conducting quality control, providing technical leadership as well as sourcing appropriate staff for the team. Job holders will need to leverage insights generated from Analytics to drive more meaningful discussions with clients and be strategic advisors to clients.

Technical Skills (TSC) Required

• Benchmarking	Level 5	• Post-deal Integration Management	Level 5
• Business Acumen	Level 6	• Professional and Business Ethics	Level 6
• Business Development	Level 5	• Project Execution and Control	Level 6
• Business Negotiation	Level 6	• Project Feasibility	Level 6
• Capital Raising	Level 5	• Project Management	Level 6
• Conflict Management	Level 6	• Regulatory Compliance	Level 5
• Corporate and Business Law	Level 6	• Risk Assessment	Level 4
• Financial Analysis	Level 6	• Risk Management	Level 5
• Financial Management	Level 5	• Stakeholder Management	Level 6
• Financial Modelling	Level 6	• Transaction Due Diligence	Level 5
• Financial Statements Analysis	Level 3	• Treasury Management	Level 6
• Information Gathering and Analysis	Level 6	• Valuation	Level 5
• Macroeconomic Analysis	Level 5		

Critical Core Skills (CCS) Required

• Communication	Advanced	• Problem Solving	Advanced
• Digital Fluency	Advanced	• Transdisciplinary Thinking	Advanced

6

Job dashboard – Financial Forensics Associate/Financial Forensics Executive (1/2)

- [Contents](#)
- [Section Top](#)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	<p>HIGH degree of change in tasks</p>
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role today

Today, this job role is responsible for supporting the financial forensics team in delivering forensic investigation, prevention and detection activities. Job holders work closely with audit, legal, risk and compliance teams, conduct data collection and analysis, prepare reports and identify fraud risks.

Job tasks today	Impact at task-level/Future view of job tasks	Time horizon
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Support fraud risk identification exercises and assist with fraud prevention activities	<p>H</p> <ul style="list-style-type: none"> Intelligent Automation tools will be used to carry out rule-based fraud prevention activities based on rules input by job holders AI enables the analysis of problematic transactions for testing, eliminating the need to pick transaction samples to test. The focus will shift to zeroing in on problematic samples, performing coding to find out issues and solving complex issues Focus shifts to applying relevant laws and regulations to fraud cases detected by technology 	<ul style="list-style-type: none"> Short-term
Assist with analysis of relevant information and apply analytical techniques to identify anomalies	<p>H</p> <ul style="list-style-type: none"> Predictive analytics enables the analysis of large datasets, which is used for preventive investigation, thus shifting the focus of fraud detection to be more proactive rather than reactive in line with changing public/client expectations The focus will shift to identifying root causes and solving complex issues rather than purely detecting fraudulent activities 	<ul style="list-style-type: none"> Medium-term
Assist to manage documents, conduct diagnostic analyses for fraud occurrence and collect data to prepare reports based on evidence	<p>H</p> <ul style="list-style-type: none"> Based on prescribed parameters, Intelligent Automation enables the flagging of controversial areas for job holders to conduct further investigations Intelligent Automation enables the automation of flagging out relevant emails for investigation and diagnostic analysis. The focus will shift towards analysing these source documents and applying accounting knowledge to spot loopholes in fraud E-discovery will continue to be relevant given the increasing amounts of unstructured data in fraud investigations Investigation methods have changed as COVID-19 border closures inhibit the collection of physical source documents and performance of on-site investigations for overseas clients. Tasks have broadened to use various ways of testing to ascertain the authenticity of softcopy source documents (i.e. checking against metadata and other leads to ascertain authenticity) 	<ul style="list-style-type: none"> Short-term
Provide administrative support to draft statements, collate information and collect data for case reports	<p>M</p> <ul style="list-style-type: none"> Analytics enables the enhancement of reports with improved data inputs. Role will shift to determining what additional data sources are needed and how to collect that information for reports Cloud computing has made it challenging for job holders to pinpoint the exact location of all data as it is now located across various cloud platforms. Job holders need to understand internal processes and system components of Cloud Computing to perform information extraction and investigation Leverage cybersecurity knowledge to assist in investigations and perform penetration testing in relation to financial hacking and identify evidence sources, including those on cloud systems 	<ul style="list-style-type: none"> Medium-term

6

Job dashboard – Financial Forensics Associate/Financial Forensics Executive (2/2)

[Contents](#)[Section Top](#)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	<p>HIGH degree of change in tasks</p>
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role in the future

Moving forward, this job role will leverage Intelligent Automation tools to automate rules-based prevention activities and highlight relevant information for job holders to perform investigation. AI & Analytics enables the analysis of datasets to provide insights and enhance report findings. Job holders will shift their focus to solving complex cases, identifying root causes of fraudulent activities and spending more effort on preventive instead of just reactive types of investigations.

Technical Skills (TSC) Required

• Accounting Standards	Level 4	• Fraud Investigation Planning and Execution	Level 3
• Corporate and Business Law	Level 2	• Litigation Support	Level 3
• Cyber Security	Level 4	• Professional and Business Ethics	Level 4
• Digital Forensics	Level 3	• Professional Skepticism and Judgment	Level 3
• Digital Technology Environment Scanning	Level 3	• Programming and Coding	Level 2
• Evidence Management	Level 3	• Project Execution and Control	Level 2
• Financial Crime Laws and Regulations	Level 3	• Regulatory Risk Assessment	Level 4
• Financial Statement Analysis	Level 4	• Stakeholder Management	Level 3
• Forensic Data Analytics	Level 3	• Programming and Coding	Level 2
• Fraud Detection and Prevention	Level 3		

Critical Core Skills (CCS) Required

• Communication	Basic	• Problem Solving	Basic
• Digital Fluency	Intermediate	• Sense Making	Basic

6 Job dashboard – Financial Forensics Senior/Financial Forensics Senior Executive (1/2)

[Contents](#)
[Section Top](#)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	<p>MEDIUM degree of change in tasks</p>
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role today

Today, this job role is responsible for carrying out fraud risk identification exercises and using technology tools to monitor activities. The role develops fraud risk management frameworks and provides recommendations to improve the prevention and detection of fraud schemes. Job holders also partner with other relevant teams to provide data and information needed to conduct investigations as well as detection and prevention activities.

Job tasks today	Impact at task-level/Future view of job tasks	Time horizon
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Conduct fraud risk identification exercises including identifying gaps and providing recommendations	<p>H</p> <ul style="list-style-type: none"> Intelligent Automation enables the automation of continuous monitoring of transactions and activities. AI (i.e. deep learning) tools will detect anomalous transactions by accessing and analysing unstructured financial data to help identify fraud more proactively. Increased monitoring will allow more pre-emptive recommendations on fraud prevention activities Focus will shift towards training the AI machine based on past cases and trends to pick up anomalies and provide recommendations to close gaps 	<ul style="list-style-type: none"> Medium-term
Carry out fraud risk assessments and analyse relevant data and information	<p>M</p> <ul style="list-style-type: none"> AI enables the enhancement of fraud detection activities. There will be a need to understand data sets and identify supplemental data that can be gathered for better insights Tasks will expand in the distant future to use specialised tools and new methodologies to detect fraud within distributed ledgers. Nevertheless, Blockchain is still in its nascent stage and will not have an impact on job tasks yet Continue to analyse anomalies to determine patterns and provide value-add to ongoing investigations 	<ul style="list-style-type: none"> Medium to long-term
Assist with conducting fraud investigations, identifying sources of evidence and ensuring accuracy, validity, relevance and reliability	<p>M</p> <ul style="list-style-type: none"> Analytics enables the enhancement of interview processes as having access to data earlier in investigations will help to provide more insights when it comes to forming interview questions E-discovery tools are used to transform images of physical documents into searchable texts through optical character recognition for more efficient assessment of the reliability of sources and fraud investigation Cloud Computing has made it challenging for job holders to pinpoint the exact location of the data as it is now located across various cloud platforms. Job holders need to understand internal processes and system components of Cloud Computing to perform information extraction and investigation Leverage cybersecurity knowledge to assist in investigations of financial hacking and identify evidence sources Job holders will continue to extract documents from clients' site despite COVID-19 unless the data is not sensitive Human intervention will be required to share findings with stakeholders 	<ul style="list-style-type: none"> Short-term
Collect data to develop case reports and draft statements for litigation support	<p>M</p> <ul style="list-style-type: none"> AI enables the enhancement of reports with improved data visualisation Domain knowledge will still be required to ensure that data collected and presented is clear and useful for case reports 	<ul style="list-style-type: none"> Short-term

6

Job dashboard – Financial Forensics Senior/Financial Forensics Senior Executive (2/2)

[Contents](#)[Section Top](#)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	 MEDIUM degree of change in tasks
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role in the future

Moving forward, this job role will use Intelligent Automation tools to continuously monitor transactions and detect suspicious activities. AI & Analytics enables the analysis of past trends and assists in providing insights to formulate relevant interview questions. Job holders will broaden their understanding of new ways to obtain evidence stored in cloud systems. Human intervention is required to leverage cybersecurity knowledge and analytical skills to investigate financial hacking.

Technical Skills (TSC) Required

• Accounting Standards	Level 5	• Internal Controls	Level 4
• Conflict Management	Level 4	• Litigation Support	Level 4
• Corporate and Business Law	Level 3	• Professional and Business Ethics	Level 4
• Cyber Security	Level 4	• Professional Skepticism and Judgment	Level 3
• Digital Forensics	Level 4	• Programming and Coding	Level 2
• Digital Technology Environment Scanning	Level 4	• Project Execution and Control	Level 3
• Evidence Management	Level 5	• Project Management	Level 3
• Financial Crime Laws and Regulations	Level 4	• Regulatory Risk Assessment	Level 4
• Financial Statements Analysis	Level 5	• Risk Assessment	Level 4
• Forensic Data Analytics	Level 4	• Stakeholder Management	Level 4
• Fraud Detection and Prevention	Level 4	• Valuation Approaches and Methodologies	Level 3
• Fraud Investigation Planning and Execution	Level 4		

Critical Core Skills (CCS) Required

• Communication	Intermediate	• Digital Fluency	Advanced
• Creative Thinking	Intermediate	• Sense Making	Intermediate

6 Job dashboard – Financial Forensics Manager (1/2)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	<p>MEDIUM degree of change in tasks</p>
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role today

Today, this job role is responsible for reviewing findings from fraud risk identification exercises and fraud investigations as well as providing recommendations to improve prevention and detection of fraud schemes. Job holders also provide advice on settlements for litigation purposes.

Job tasks today	Impact at task-level/Future view of job tasks	Time horizon
Develop plans, review findings of fraud risk identification and review recommendations to improve fraud prevention	<p>L</p> <ul style="list-style-type: none"> Changing client expectations will continue to drive the need for an in-depth understanding of the changing landscape which will impact the development and complexity of fraud risk identification frameworks Job holders need to review their team’s findings from fraud risk identification including outputs generated from technology tools. E-discovery tools allow more efficient review and tracking as they provide a full audit trail of data analysed Human intervention will remain important to understand clients’ sophistication levels regarding technology and analytics 	<ul style="list-style-type: none"> Short-term
Develop plans for fraud risk assessments and review data and findings for relevance	<p>M</p> <ul style="list-style-type: none"> Analytics tools will be used to help review transactions, which will augment existing knowledge and experience resulting in the ability to train AI models more effectively Fraud risk assessment plans have changed as COVID-19 border closures inhibit performing on-site investigations for overseas clients, hence accounting practices had to enlist help from global counterparts. Tasks will be broadened to augment fraud risk assessment plans. This includes knowledge transfer of clients’ background to overseas teams and provision of direction to overseas teams on methodology to assess fraud on-site Cybersecurity knowledge is required to guide investigations, work-steps in performing penetration testing in relation to financial hacking and conduct risks assessments when developing plans to identify evidence sources including those on cloud platforms 	<ul style="list-style-type: none"> Medium-term
Conduct interviews to gather data during fraud investigations, manage evidence, and present findings to clients	<p>M</p> <ul style="list-style-type: none"> AI & Analytics enables the detection of outliers and anomalies across structured and unstructured data sets. Focus shifts to formulating more targeted interview questions and providing deeper insights to stakeholders Method of conducting interviews to gather data will change, as remote working practices become more prevalent due to COVID-19. Overseas clients can be interviewed by regional counterparts or through other means to assess body language Tasks will be broadened to understand internal processes of clients’ data storage in the cloud and how the information extraction process may be different as information is no longer consolidated on-premise devices 	<ul style="list-style-type: none"> Medium-term
Provide litigation support by reviewing statements and advising on settlement	<p>L</p> <ul style="list-style-type: none"> Analytics enables the analysis and generation of more insights and recommendations which will lead to enhanced cross-functional collaboration among relevant stakeholders Human intervention will remain important to provide testimonies and evidence for proposed resolutions in court 	<ul style="list-style-type: none"> Short-term

6 Job dashboard – Financial Forensics Manager (2/2)

[Contents](#)[Section Top](#)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	 MEDIUM degree of change in tasks
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role in the future

Moving forward, this job role will leverage AI & Analytics tools to detect outliers in financial transactions, allowing job holders to perform more targeted investigations. Job holders will continue to review findings from fraud risk assessment performed by teams and provide in-depth recommendations based on changing client expectations to improve prevention and detection of fraud. Professional judgement and technical experience are still required to develop plans for fraud risk identification frameworks.

Technical Skills (TSC) Required

• Accounting Standards	Level 5	• Governance	Level 4
• Business Development	Level 5	• Internal Controls	Level 5
• Conflict Management	Level 5	• Litigation Support	Level 5
• Corporate and Business Law	Level 4	• Professional and Business Ethics	Level 5
• Cyber Security	Level 5	• Professional Skepticism and Judgment	Level 4
• Digital Forensics	Level 5	• Programming and Coding	Level 3
• Digital Technology Environment Scanning	Level 5	• Project Execution and Control	Level 4
• Evidence Management	Level 5	• Project Management	Level 4
• Financial Crime Laws and Regulations	Level 5	• Regulatory Risk Assessment	Level 5
• Financial Statements Analysis	Level 5	• Risk Assessment	Level 5
• Forensic Data Analytics	Level 5	• Stakeholder Management	Level 5
• Fraud Detection and Prevention	Level 5	• Valuation Approaches and Methodologies	Level 4
• Fraud Investigation Planning and Execution	Level 5		

Critical Core Skills (CCS) Required

• Communication	Advanced	• Problem Solving	Intermediate
• Creative Thinking	Intermediate	• Sense Making	Intermediate
• Digital Fluency	Advanced		

6 Job dashboard – Financial Forensics Director/Financial Forensics Partner (1/2)

[Contents](#)
[Section Top](#)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	<p>LOW degree of change in tasks</p>
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role today

Today, this job role is responsible for providing the overall direction for the financial forensics team including identifying opportunities for growth and further collaborations. Job holders also approve reports and recommendations developed by the team, manage the overall investigation and provide expert testimonies. In addition, job holders establish strategic business partnerships with relevant stakeholders.



Job tasks today	Impact	Impact at task-level/Future view of job tasks	Time horizon
Lead fraud risk identification exercises, communicate gaps with stakeholders and endorse recommendations to improve the prevention of fraud schemes	L	<ul style="list-style-type: none"> Business and strategic acumen will continue to be required to evaluate technology tools and plan for proper adoption and rollout. These tools will be complementary to existing business acumen Job holders will need to evaluate which technology tools can be used to support pre-emptive fraud prevention activities 	<ul style="list-style-type: none"> Short-term
Lead fraud risk assessments through interviews and identify forensic technologies to enhance monitoring	L	<ul style="list-style-type: none"> To meet changing client expectations for fraud detection, job holders need to adopt a holistic data-driven approach and leverage cross-functional collaboration moving forward. This will help to address false positives, handle complex cases and overcome the challenges of handling data and information silos from clients 	<ul style="list-style-type: none"> Short-term
Formulate strategies to conduct fraud investigations	M	<ul style="list-style-type: none"> AI & Analytics enables the provision of enhanced advice and insights for relevant stakeholders Incorporating AI & Analytics will enable the formulation of more robust strategies and methodologies for conducting fraud investigations Job holders will continue to formulate new strategies, ways of working and tools for investigation. They will be required to evaluate and integrate emerging technologies to drive operational efficiencies. Job holders also leverage their understanding of accounting and regulatory issues to manage regulatory risks and safeguard data Strategise and provide direction on alternative methods of testing for financial forensics investigations for overseas clients when teams are unable to perform on-site investigations due to COVID-19 border restrictions 	<ul style="list-style-type: none"> Medium-term
Partner with clients to identify litigation requirements, negotiate settlements and collaborate with relevant business units	L	<ul style="list-style-type: none"> Stakeholder management continues to be key as job holders need to communicate with relevant stakeholders, government and regulatory bodies Continue to serve as a subject matter expert and provide domain expertise Increase in cross functional collaboration with other teams (e.g. technology teams) for greater synergies in service offerings to leverage multi-disciplinary skillsets 	<ul style="list-style-type: none"> Short-term

6 Job dashboard – Financial Forensics Director/Financial Forensics Partner (2/2)

[Contents](#)
[Section Top](#)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role in the future

Moving forward, this job role will continue to formulate new strategies for investigations and will need to proactively identify opportunities and cross-functional collaborations (e.g. technology teams) to drive growth for the FF practice. AI & Analytics tools will provide key insights for job holders to drive meaningful engagements with relevant stakeholders. Job holders will also need to be well-versed in technology to drive technology adoption within the practice.

Technical Skills (TSC) Required

• Accounting Standards	Level 6	• Governance	Level 5
• Business Development	Level 6	• Internal Controls	Level 6
• Conflict Management	Level 6	• Litigation Support	Level 5
• Corporate and Business Law	Level 5	• Professional and Business Ethics	Level 6
• Cyber Security	Level 5	• Professional Skepticism and Judgment	Level 5
• Digital Forensics	Level 5	• Programming and Coding	Level 3
• Digital Technology Environment Scanning	Level 5	• Project Execution and Control	Level 5
• Evidence Management	Level 5	• Project Management	Level 5
• Financial Crime Laws and Regulations	Level 5	• Regulatory Risk Assessment	Level 6
• Financial Statements Analysis	Level 6	• Risk Assessment	Level 6
• Forensic Data Analytics	Level 5	• Stakeholder Management	Level 6
• Fraud Detection and Prevention	Level 6	• Valuation Approaches and Methodologies	Level 5
• Fraud Investigation Planning and Execution	Level 6		

Critical Core Skills (CCS) Required

• Communication	Advanced	• Problem Solving	Advanced
• Creative Thinking	Intermediate	• Sense Making	Advanced
• Digital Fluency	Advanced		

7 Job dashboard – Restructuring and Insolvency
Associate/Restructuring and Insolvency Executive (1/2)

[Contents](#)

[Section Top](#)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role today

Today, this job role is responsible for conducting initial market research, financial analyses and information synthesis to develop relevant insights. The role requires participation in business development and stakeholder interactions.

Job tasks today	Impact at task-level/Future view of job tasks	Time horizon
Assist in analysing historical financial performance and support business performance assessment	<p>M</p> <ul style="list-style-type: none"> As clients expect more advisory services, analytics tools will support financial information analysis where job holders generate insights and make more informed decisions Focus will shift from calculating to interpreting financial ratios 	<ul style="list-style-type: none"> Short-term
Support team to administer formal restructuring and insolvency processes by gathering relevant information	<p>M</p> <ul style="list-style-type: none"> Cloud Computing tools will streamline the process of information sharing where clients, job holders and their outsourced or offshored team members can access the same document anytime and anywhere as long as there is internet connectivity, thus facilitating efficiency of collaboration amongst teams With information stored in the cloud, job holders need to ensure that the necessary measures are in place to mitigate cybersecurity risks 	<ul style="list-style-type: none"> Short to medium-term
Perform research activities to gather information on the client’s legal entity structure and identify potential solutions to improve the client’s financial performance	<p>H</p> <ul style="list-style-type: none"> Intelligent Automation will enable repetitive research tasks to be automated and focus will shift from manual, time-intensive research efforts to defining rules for Intelligent Automation systems The shift towards higher-value activities may be used as a talent retention strategy to better engage job holders 	<ul style="list-style-type: none"> Short-term
Support preparation of documents for the sale of distressed assets	<p>M</p> <ul style="list-style-type: none"> Intelligent Automation tools will aid job holders in the preparation of standardised reports (e.g. documents for due diligence processes) Human intervention is still required to oversee the administration of such documents 	<ul style="list-style-type: none"> Short-term

7

Job dashboard – Restructuring and Insolvency Associate/Restructuring and Insolvency Executive (2/2)

[Contents](#)[Section Top](#)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	 MEDIUM degree of change in tasks
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role in the future

Moving forward, this job role will leverage technology to support initial market research, financial analyses and information synthesis to develop relevant insights. Job holders will focus on interpreting data and defining rules for Intelligent Automation systems. Human intervention is still required to oversee activities, participate in business development and engage in stakeholder interactions.

Technical Skills (TSC) Required

• Business Acumen	Level 4	• Financial Analysis	Level 3
• Business Development	Level 2	• Financial Management	Level 2
• Business Negotiation	Level 3	• Financial Modelling	Level 3
• Capital Raising	Level 3	• Financial Statements Analysis	Level 4
• Cash Flow Management	Level 3	• Professional and Business Ethics	Level 3
• Claims Management	Level 3	• Project Execution and Control	Level 2
• Conflict Management	Level 2	• Regulatory Compliance	Level 3
• Corporate and Business Law	Level 3	• Restructuring Insolvency Advisory	Level 3
• Data Analytics	Level 3	• Stakeholder Management	Level 3
• Data Governance	Level 3	• Transaction Due Diligence	Level 2
• Data Storytelling and Visualisation	Level 3	• Valuation	Level 2
• Debt Restructuring	Level 3		

Critical Core Skills (CCS) Required

• Collaboration	Intermediate	• Problem Solving	Basic
• Communication	Basic	• Sense Making	Intermediate

7

Job dashboard – Restructuring and Insolvency Senior/Restructuring and Insolvency Senior Executive (1/2)

[Contents](#)

[Section Top](#)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role today

Today, this job role is responsible for the day-to-day operations including managing the restructuring and insolvency processes for client engagements, participating in business development and working with stakeholders to manage project deliverables and timelines. The role requires strong project management skills, the ability to manage multiple deadlines and skills to generate insights from data.

Job tasks today	Impact at task-level/Future view of job tasks	Time horizon
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Perform financial analyses, financial modelling and assess business performance to assist in the development of restructuring plans	<p>M</p> <ul style="list-style-type: none"> Intelligent Automation enables more efficiency and greater accuracy in the preparation of financial ratios. This information can be stored in the cloud to facilitate efficiency in collaboration amongst teams Focus will shift to reviewing and interpreting financial numbers, and handling complex exception cases that require domain-specific knowledge. It is important to understand the underlying cybersecurity risks and ensure responsible use of digital information 	<ul style="list-style-type: none"> Short to medium-term
Prepare proposed solutions to advise clients in optimising financial performance and preserving capital	<p>M</p> <ul style="list-style-type: none"> As clients move towards a proactive approach to optimise financial performance, analytics tools can be used to simulate scenarios and enhance cashflow projections Focus on generating insights to proactively manage client's financial performance 	<ul style="list-style-type: none"> Short-term
Draft correspondence to clients with creditors during restructuring or insolvency	<p>H</p> <ul style="list-style-type: none"> Intelligent Automation will enable extraction of key information required for letters to creditors, from existing documents. The focus will shift to validating these pre-populated information in the letters to creditors, instead of doing manual data entry Backend documentation activities can be outsourced as talent retention and pricing strategy, enabling job holders to focus on higher-value activities 	<ul style="list-style-type: none"> Short to medium-term
Assist in the sale of distressed assets	<p>M</p> <ul style="list-style-type: none"> AI and Analytics tools will help to identify client's potential risk of breaches in representations and warranties Focus will shift to modifying the form of purchase and sale agreements to protect the client's interests and working with other teams to improve the AI model 	<ul style="list-style-type: none"> Medium to long-term

7

Job dashboard – Restructuring and Insolvency

Senior/Restructuring and Insolvency Senior Executive (2/2)

[Contents](#)[Section Top](#)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	 MEDIUM degree of change in tasks
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role in the future

Moving forward, this job role will still be responsible for managing the R&I process, participating in business development and working with stakeholders to manage project deliverables and timelines. Technology such as Intelligent Automation, AI and Analytics will be leveraged and job holders will focus on reviewing financial ratios, assessing risks and managing complex exception cases.

Technical Skills (TSC) Required

• Business Acumen	Level 4	• Financial Analysis	Level 4
• Business Development	Level 3	• Financial Management	Level 3
• Business Negotiation	Level 4	• Financial Modelling	Level 4
• Capital Raising	Level 3	• Financial Statements Analysis	Level 4
• Cash Flow Management	Level 3	• Professional and Business Ethics	Level 4
• Claims Management	Level 3	• Project Execution and Control	Level 3
• Conflict Management	Level 3	• Regulatory Compliance	Level 4
• Corporate and Business Law	Level 4	• Restructuring Insolvency Advisory	Level 4
• Data Analytics	Level 4	• Stakeholder Management	Level 4
• Data Governance	Level 4	• Transaction Due Diligence	Level 3
• Data Storytelling and Visualisation	Level 4	• Valuation	Level 2
• Debt Restructuring	Level 4		

Critical Core Skills (CCS) Required

• Collaboration	Intermediate	• Problem Solving	Intermediate
• Communication	Intermediate	• Sense Making	Intermediate
• Creative Thinking	Intermediate		

7 Job dashboard – Restructuring and Insolvency Manager (1/2)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	<p>MEDIUM degree of change in tasks</p>
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role today

Today, this job role is responsible for being the second-in-charge to lead the R&I practice where he generates and supports the business growth, ensures the quality of technical output, sources for appropriate staff for the team and manages potential risks. Job holders require capabilities in client, stakeholder and business management, project management as well as team development.



Job tasks today	Impact at task-level/Future view of job tasks	Time horizon
Advise clients on recommendations to optimise financial performance and preserve capital	<p>M</p> <ul style="list-style-type: none"> As clients expect a forward-looking approach to optimise financial performance, analytics tools will model scenarios for cashflow optimisation and conduct risk assessment, enabling job holders to make more informed decisions Technical expertise and in-depth knowledge continue to remain critical for success in this job role 	<ul style="list-style-type: none"> Short-term
Manage project and guide team to execute judicial management, receivership and liquidation	<p>M</p> <ul style="list-style-type: none"> Cloud Computing tools will streamline the process of document sharing within the team, enabling a more efficient document review process as real-time feedback is enabled through the cloud systems. However, it is important to manage the risks of digital infrastructure With COVID-19 resulting in the shift towards remote working, job holders need to learn how to manage teams and communicate effectively during virtual meetings 	<ul style="list-style-type: none"> Short to medium-term
Review financial analyses, financial models and recommend financial restructuring plans	<p>L</p> <ul style="list-style-type: none"> Clients today expect more advisory services and analytics tools will enable comparison of key financial metrics across previous years to evaluate business performance Focus will continue to be on reviewing deliverables and providing recommendations for clients' consideration 	<ul style="list-style-type: none"> Medium-term
Execute financial restructuring plans and manage sales of distressed assets	<p>M</p> <ul style="list-style-type: none"> AI and Analytics will enable the generation of multiple variations of simulations at a faster rate to analyse and assess the value of distressed assets Focus will shift to validating the outputs of analytics, working with other teams to improve the AI model and understanding how the transaction meets the goals of the client 	<ul style="list-style-type: none"> Long-term

7

Job dashboard – Restructuring and Insolvency Manager (2/2)

[Contents](#)

[Section Top](#)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	<p>MEDIUM degree of change in tasks</p>
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role in the future

Moving forward, this job role will continue to be the second-in-charge and is expected to leverage AI and Analytics to simulate scenarios at a faster rate and provide advisory services to clients. Professional judgement is still required to meet changing needs of clients and manage projects.

Technical Skills (TSC) Required

• Business Acumen	Level 5	• Financial Analysis	Level 5
• Business Development	Level 4	• Financial Management	Level 4
• Business Negotiation	Level 5	• Financial Modelling	Level 5
• Capital Raising	Level 4	• Financial Statements Analysis	Level 5
• Cash Flow Management	Level 4	• Professional and Business Ethics	Level 5
• Claims Management	Level 4	• Project Execution and Control	Level 4
• Conflict Management	Level 4	• Regulatory Compliance	Level 5
• Corporate and Business Law	Level 5	• Restructuring Insolvency Advisory	Level 5
• Data Analytics	Level 5	• Stakeholder Management	Level 5
• Data Governance	Level 5	• Transaction Due Diligence	Level 4
• Data Storytelling and Visualisation	Level 4	• Valuation	Level 3
• Debt Restructuring	Level 5		

Critical Core Skills (CCS) Required

• Collaboration	Advanced	• Developing People	Intermediate
• Communication	Advanced	• Problem Solving	Advanced
• Decision Making	Advanced		

7 Job dashboard – Restructuring and Insolvency Partner/Restructuring and Insolvency Director (1/2)

[Contents](#)
[Section Top](#)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	<p>LOW degree of change in tasks</p>
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role today

Today, this job role is responsible for leading the R&I practice, generating growth for the business, ensuring the quality of technical output and managing potential risks. Job holders tap on their expertise to validate proposed recommendations and solutions while ensuring that proceedings are aligned to strategic objectives.



Job tasks today	Impact at task-level/Future view of job tasks	Time horizon
Evaluate proposed recommendations to optimise client's financial performance	<p>L</p> <ul style="list-style-type: none"> AI and Analytics tools will provide insights, enabling job holders to use a data-driven approach together with their technical expertise to make informed decisions Job holders will continue to require professional judgement and understanding of client expectations to determine the feasibility of recommendations 	<ul style="list-style-type: none"> Medium-term
Provide expertise knowledge on evaluation and recommendations for financial restructuring	<p>L</p> <ul style="list-style-type: none"> AI and Analytics tools will support the evaluation of restructuring options, enabling more accurate modelling to determine the feasibility of options Job holders need to leverage their expert knowledge and foresight that comes with experience to provide strategic financial advice 	<ul style="list-style-type: none"> Medium-term
Lead overall restructuring and insolvency processes, including bankruptcy while managing stakeholder interests	<p>L</p> <ul style="list-style-type: none"> To improve operational efficiency, job holders need to understand potential activities that can be outsourced or offshored for cost efficiency COVID-19 has resulted in the shift towards remote working and job holders need to be able to manage clients and team's expectations through virtual platforms Technical expertise, business acumen and judgment remain critical to align the organisation's strategies with customer and market needs. Personal influence and leadership skills are essential for effective stakeholder management 	<ul style="list-style-type: none"> Short-term
Provide strategic vision and leadership for the business to determine objectives and targets	<p>L</p> <ul style="list-style-type: none"> Business acumen and strategic thinking are imperative to formulate clear strategic plans and actions to achieve the organisation's long-term goals Job holders need to keep abreast of key trends in technology advancements to drive technology adoption within their teams, understand the underlying risks involved and consider potential solutions to mitigate these risks 	<ul style="list-style-type: none"> Short-term

7

Job dashboard – Restructuring and Insolvency Partner/Restructuring and Insolvency Director (2/2)

[Contents](#)[Section Top](#)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role in the future

Moving forward, this job role will continue to be responsible for leading the R&I practice and is expected to drive operational efficiency in the team through technology or explore new resourcing models. Job holders tap on their expertise and knowledge on the latest trends in the sector to provide strategic advice to clients.

Technical Skills (TSC) Required

• Business Acumen	Level 6	• Financial Analysis	Level 5
• Business Development	Level 4	• Financial Management	Level 5
• Business Negotiation	Level 6	• Financial Modelling	Level 5
• Capital Raising	Level 5	• Financial Statements Analysis	Level 6
• Cash Flow Management	Level 4	• Professional and Business Ethics	Level 6
• Claims Management	Level 5	• Project Execution and Control	Level 5
• Conflict Management	Level 5	• Regulatory Compliance	Level 5
• Corporate and Business Law	Level 6	• Restructuring Insolvency Advisory	Level 5
• Data Analytics	Level 5	• Stakeholder Management	Level 6
• Data Governance	Level 5	• Transaction Due Diligence	Level 4
• Data Storytelling and Visualisation	Level 5	• Valuation	Level 3
• Debt Restructuring	Level 6		

Critical Core Skills (CCS) Required

• Creative Thinking	Advanced	• Developing People	Advanced
• Decision Making	Advanced	• Problem Solving	Advanced

8 Job dashboard – Corporate Secretarial Associate (1/2)

[Contents](#)[Section Top](#)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	 <p>HIGH degree of change in tasks</p>
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role today

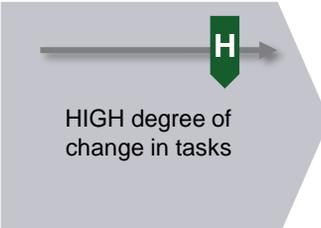
Today, this job role is responsible for supporting the execution of corporate secretarial activities that ensure proper documentation for regulatory corporate compliance, internal governance and shareholder management. Job holders must be organised and detail-oriented to manage different documentations required and adhere to statutory requirements.

Job tasks today	Impact at task-level/Future view of job tasks	Time horizon
Assist in the preparation of documents to ensure corporate compliance, including incorporation, AML and updates of corporate information required by statutory bodies*	<p>H</p> <ul style="list-style-type: none"> The automation of the preparation and filing of statutory reports can alleviate time and manual effort. Currently, ACRA and IRAS have co-created a digital solution for the seamless filing of annual returns and financial statements The manual processes of anti-money laundering (AML) and know your customer (KYC) checks can be automated by dedicated software that performs customer screening and continuous monitoring 	<ul style="list-style-type: none"> Short-term
Provide logistical support and prepare documentation for board meetings including minutes taking, publication and distribution of meeting minutes, annual reports and documents required by statutory bodies*	<p>M</p> <ul style="list-style-type: none"> As board meetings are increasingly held virtually, job holders have to be skillful in organising virtual meetings. The development and distribution of documents such as board minutes and the publication of annual reports are facilitated by cloud, reducing the need for hardcopy signatories While human intervention is still required to draft meeting minutes, the drafting process is aided by software which can transcribe audio recordings of meetings to provide raw content notes for reference The drafting of annual reports can be offshored to foreign partner firms 	<ul style="list-style-type: none"> Short-term
Support the share registration of the shareholders for share transfer and buybacks	<p>H</p> <ul style="list-style-type: none"> Intelligent Automation enables the automation of repetitive tasks pertaining to share registration. Job holders can enjoy time savings and errors arising from manual entry are minimised. Shareholders can have the autonomy to utilise technology for their share registration 	<ul style="list-style-type: none"> Short-term
Support by providing information required for amendments for organisation constitution, internal policies and other documentation	<p>M</p> <ul style="list-style-type: none"> Intelligent Automation tools crawl through databases to provide information relating to the required amendments Human intervention is still required to interpret these information and communicate it to one's superior 	<ul style="list-style-type: none"> Short-term

* When applicable, includes listing requirement

8 Job dashboard – Corporate Secretarial Associate (2/2)

[Contents](#)[Section Top](#)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	 <p>HIGH degree of change in tasks</p>
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role in the future

Moving forward, this job role will leverage technology to assist in the preparation, filing, distribution and publishing of standardised documentation on regulatory corporate compliance, internal governance and shareholder management. Job holders will focus on defining rules for Intelligent Automation systems. Human intervention is still required to draft minutes of meetings.

Technical Skills (TSC) Required

• Business Acumen	Level 3	• Macroeconomic Analysis	Level 3
• Corporate and Business Law	Level 2	• Management Decision Making	Level 3
• Data Governance	Level 3	• Non-Financial Reporting	Level 4
• Environment and Social Governance	Level 3	• Professional and Business Ethics	Level 3
• Financial Reporting	Level 2	• Professional Standards	Level 3
• Financial Reporting Quality	Level 2	• Regulatory Compliance	Level 3
• Governance	Level 2	• Regulatory Risk Assessment	Level 4
• Infocomm Security and Data Privacy	Level 3	• Stakeholder Management	Level 3

Critical Core Skills (CCS) Required

• Collaboration	Basic	• Problem Solving	Basic
• Communication	Basic	• Transdisciplinary Thinking	Basic
• Digital Fluency	Basic		

8

Job dashboard – Corporate Secretarial Senior/Corporate Secretarial Senior Executive (1/2)

[Contents](#)[Section Top](#)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	<p>MEDIUM degree of change in tasks</p>
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role today

Today, this job role is responsible for ensuring the timely execution of corporate secretarial activities that ensure the proper documentation of regulatory corporate compliance, internal governance and shareholder management. Job holders will also be required to develop processes and frameworks for the execution of these corporate secretarial activities. Job holders must be independent and meticulous in order to achieve all the deliverables required.

Job tasks today	Impact at task-level/Future view of job tasks	Time horizon
Develop processes and framework for documentation to ensure corporate compliance, including incorporation, AML and updates of corporate information required by statutory bodies*	<p>M</p> <ul style="list-style-type: none"> Job holders will input pre-determined parameters into Intelligent Automation systems to define processes and frameworks for the automation of statutory report filings and documentations. The focus will shift to the reviewing of outputs from automation AI & Analytics and Intelligent Automation will flag out anomalous cases through automating customer screening and monitoring. Job holders will shift their focus towards analysing and solving complex cases that requires human discretion 	<ul style="list-style-type: none"> Short-term
Develop processes for the logistics of board meetings, review draft meeting agenda, minutes, as well as review processes relating to the publication and distribution of annual reports and documents required by statutory bodies*	<p>M</p> <ul style="list-style-type: none"> Job holders understand Cloud Computing processes and upskill in basic cybersecurity skills to manoeuvre access controls of confidential documents, manage relevant communications and determine processes to ensure smooth and timely digital release of meetings and documents Cloud Computing enables organised content storage and AI & Analytics assist job holders in providing an initial draft of board meeting minutes Job holders will shift their focus to review the drafted minutes Cybersecurity and internal controls concerns require job holders to assess and pre-empt potential possible threats Job holders are required to manage and review the deliverables from foreign partner firms and focus on the publication process 	<ul style="list-style-type: none"> Short-term
Perform the registration and the transfer of shares and analyse information for restructuring possibilities	<p>M</p> <ul style="list-style-type: none"> Intelligent Automation and AI & Analytics will flag out anomalous entries. Job holders will shift their focus to resolving these anomalous and complex cases of share registration and transfers Data analytics tools will process and analyse the information required to evaluate possible restructuring for clients. Job holders will shift their focus to interpreting insights generated to better inform clients on potential restructuring possibilities 	<ul style="list-style-type: none"> Short to medium-term
Draft amendments for organisation constitution, internal policies and other documentation	<p>M</p> <ul style="list-style-type: none"> Job holders will leverage information furnished by Intelligent Automation and interpreted by their teams to draft amendments required based on customised needs of each organisation, constitution, internal policies or governing documentation Cloud Computing facilitates efficient extraction of required data Human intervention is still required to review, draft and update governance documents based on each client's needs 	<ul style="list-style-type: none"> Short-term

8

Job dashboard – Corporate Secretarial Senior/Corporate Secretarial Senior Executive (2/2)

[Contents](#)[Section Top](#)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	 MEDIUM degree of change in tasks
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role in the future

Moving forward, this job role will still be responsible for developing processes and ensuring the timely execution of corporate secretarial activities which include preparing, filing, distributing and publishing documentation on regulatory corporate compliance, internal governance and shareholder management. Intelligent Automation, Cloud Computing, AI and Analytics will be leveraged and job holders will focus on reviewing documentation, overseeing the automation output, interpreting insights generated by emerging technologies and resolving anomalous and complex cases.

Technical Skills (TSC) Required

• Business Acumen	Level 4	• Macroeconomic Analysis	Level 3
• Corporate and Business Law	Level 3	• Management Decision Making	Level 3
• Data Governance	Level 4	• Non-Financial Reporting	Level 4
• Environment and Social Governance	Level 3	• Professional and Business Ethics	Level 4
• Financial Reporting	Level 3	• Professional Standards	Level 4
• Financial Reporting Quality	Level 4	• Regulatory Compliance	Level 3
• Governance	Level 3	• Regulatory Risk Assessment	Level 4
• Infocomm Security and Data Privacy	Level 3	• Stakeholder Management	Level 4

Critical Core Skills (CCS) Required

• Collaboration	Basic	• Sense Making	Intermediate
• Communication	Basic	• Transdisciplinary Thinking	Intermediate
• Self-Management	Intermediate		

8 Job dashboard – Corporate Secretarial Manager (1/2)

[Contents](#)[Section Top](#)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	<p>MEDIUM degree of change in tasks</p>
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role today

Today, this job role is responsible for managing clients and the engagements by ensuring that the deliverables are at the level of quality desired. This job role is also responsible for ensuring that regulatory compliance and internal governance are respected and adhered to at all times. This role requires strong project management skills, stakeholder management skills, meticulousness and the agility to adapt to different working styles.

Job tasks today	Impact at task-level/Future view of job tasks	Time horizon
Monitor and review all necessary documents to ensure corporate compliance, including incorporation, AML and updates of corporate information required by statutory bodies*	<p>M</p> <ul style="list-style-type: none"> Job holders are increasingly expected to be experts in regulations and compliance standards in order to provide more qualitative insights and be advisors to their clients Additionally, the job role is increasingly expected to provide insights on the benefits of being a Singapore-incorporated firm and insights on the impact of technology and compliance landscape, in order to better attract and guide organisations that are considering incorporation in Singapore 	<ul style="list-style-type: none"> Medium to long-term
Oversee the logistics of board meetings, review meeting agenda and minutes, monitor the publication and distribution of annual reports and all documents required by statutory bodies*	<p>M</p> <ul style="list-style-type: none"> The accessibility of board documents including the minutes, resolution, and reports stored in the cloud will facilitate the tracking of distribution of documents as well as the review and sign-off required for the agenda and minutes. This role will evolve to be an advisor to the Board, by supporting them in navigate emerging trends impacting the Board, compliance processes and challenges that clients must take into account As the offshoring of publication and distribution of annual reports becomes more common, job holders are required to monitor the activity remotely While overseeing and monitoring the team's work, job holders need to take into consideration the potential communication challenges from the remote working arrangements, resulting from COVID-19 regulations 	<ul style="list-style-type: none"> Short to medium-term
Monitor the registration and transfer shares and evaluate restructuring possibilities	<p>M</p> <ul style="list-style-type: none"> Data analytics tools will facilitate monitoring of the registration, transfer of shares and generate business insights to evaluate the different corporate restructuring options that can enhance the client's organisational value 	<ul style="list-style-type: none"> Short to medium-term
Review amendments for organisation constitution, internal policies and other governance documentation	<p>L</p> <ul style="list-style-type: none"> The review of governance documentation is still needed and will require human expertise and intervention 	<ul style="list-style-type: none"> Long-term

* When applicable, includes listing requirement

8 Job dashboard – Corporate Secretarial Manager (2/2)

[Contents](#)[Section Top](#)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	 MEDIUM degree of change in tasks
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role in the future

Moving forward, this job role is expected to leverage AI, Analytics and Cloud Computing to oversee and monitor engagement activities at a faster pace as well as provide advisory services on regulations and compliance standards to clients. Domain expertise is still required to stay abreast of the evolving regulations, technology and compliance landscapes to manage engagements.

Technical Skills (TSC) Required

• Business Acumen	Level 5	• Management Decision Making	Level 4
• Corporate and Business Law	Level 4	• Non-Financial Reporting	Level 5
• Data Governance	Level 5	• Professional and Business Ethics	Level 5
• Environment and Social Governance	Level 4	• Professional Standards	Level 5
• Financial Reporting	Level 3	• Regulatory Compliance	Level 4
• Financial Reporting Quality	Level 3	• Regulatory Risk Assessment	Level 5
• Governance	Level 5	• Regulatory Strategy	Level 5
• Infocomm Security and Data Privacy	Level 4	• Stakeholder Management	Level 5
• Macroeconomic Analysis	Level 4		

Critical Core Skills (CCS) Required

• Collaboration	Advanced	• Sense Making	Advanced
• Communication	Advanced	• Transdisciplinary Thinking	Advanced
• Developing People	Advanced		

8

Job dashboard – Corporate Secretarial Partner/Corporate Secretarial Director (1/2)

[Contents](#)[Section Top](#)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	<p>LOW degree of change in tasks</p>
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role today

Today, this job role is responsible for partnering with directors and shareholders to ensure strong corporate compliance. Job holders act as the final reviewer in ensuring statutory and regulatory obligations are satisfied as soon as practicable. Job holders are required to manage and resolve conflicts effectively, be a strategic advisor and be a subject matter expert.

Job tasks today	Impact at task-level/Future view of job tasks	Time horizon
Stay abreast with the amendments and changes in statutory obligations of regulatory bodies to ensure that all documents required by statutory bodies are compliant*	<p>M</p> <ul style="list-style-type: none"> Company secretaries will be increasingly called by Boards to provide expert advice on regulation, strategy, practice and procedure as well as to ensure the effectiveness of clients' governance and compliance processes As the regulatory complexity is increasing, job holders will need to constantly stay ahead of the complex combination of risks, regulation, compliance, and technology 	<ul style="list-style-type: none"> Short to medium-term
Finalise meeting agenda with the chairman and/or the directors, certify board meeting minutes and oversee the publication and distribution of annual reports and all documents required by statutory bodies*	<p>L</p> <ul style="list-style-type: none"> AI & Analytics tools will be an enabler to facilitate daily tasks. However, job holders still play an important role as skills such as stakeholder management, communication, compliance and critical thinking remain core Corporate Secretaries should also stay ahead of the business trends as job holders will be expected to help boards to navigate through the new changes and challenges such as the importance of social media, data privacy, environmental and social trends As offshoring becomes more common, job holders will need to oversee the offshored publication and distribution of annual reports and documents ensuring that they comply with the relevant standards. However, the rest of the task remains largely unchanged 	<ul style="list-style-type: none"> Short to medium-term
Advise clients on organisation restructuring	<p>L</p> <ul style="list-style-type: none"> Due to digitalisation of the private equity industry and the convergence of sectors, advising clients requires more diverse and in-depth knowledge. The core knowledge and skill required to advise on restructuring remain the same 	<ul style="list-style-type: none"> Short to medium-term
Review and advise on the client's governance framework	<p>L</p> <ul style="list-style-type: none"> The role is increasingly expected to provide expert advice on regulation, strategy, practices, and procedures to ensure the effectiveness of clients' governance and compliance processes. Job holders must continue to be aware of the changing environmental and geopolitical landscape Due to COVID-19, the remote working setting requires job holders to adapt their review processes and communication tactics to ensure that all the advice on governance frameworks are accurately conveyed to clients and are in accordance with statutory requirements 	<ul style="list-style-type: none"> Short to medium-term

* When applicable, includes listing requirement

8

Job dashboard – Corporate Secretarial Partner/Corporate Secretarial Director (2/2)

[Contents](#)[Section Top](#)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	 LOW degree of change in tasks
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role in the future

Moving forward, this job role will continue partnering with directors and shareholders and be the final reviewer in ensuring statutory and regulatory obligations are satisfied. The role is expected to leverage technology to interpret data and facilitate communication amongst stakeholders. Job holders will need to stay abreast of trends, understand the implications of changing environmental and geopolitical landscape and help Boards navigate through the increasingly complex regulatory environment.

Technical Skills (TSC) Required

• Business Acumen	Level 6	• Management Decision Making	Level 5
• Corporate and Business Law	Level 5	• Non-Financial Reporting	Level 5
• Data Governance	Level 6	• Professional and Business Ethics	Level 6
• Environment and Social Governance	Level 5	• Professional Standards	Level 6
• Financial Reporting	Level 3	• Regulatory Compliance	Level 5
• Financial Reporting Quality	Level 4	• Regulatory Risk Assessment	Level 6
• Governance	Level 6	• Regulatory Strategy	Level 6
• Infocomm Security and Data Privacy	Level 5	• Stakeholder Management	Level 6
• Macroeconomic Analysis	Level 5		

Critical Core Skills (CCS) Required

• Collaboration	Advanced	• Sense Making	Advanced
• Decision Making	Advanced	• Transdisciplinary Thinking	Advanced
• Developing People	Advanced		

9 Job dashboard – Senior Internal Auditor/Internal Auditor (1/2)

[Contents](#)[Section Top](#)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	 <p>HIGH degree of change in tasks</p>
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

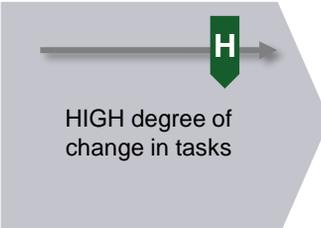
Responsibilities of the role today

Today, this job role is responsible for executing internal audit engagements in accordance with audit procedures and applicable frameworks on governance, risk management and controls. The role requires job holders to be meticulous and dependable in executing the work. Job holders need to exercise due professional care in the work performed.

Job tasks today	Impact at task-level/Future view of job tasks	Time horizon
Document client's internal controls and business processes	<p>H</p> <ul style="list-style-type: none"> Intelligent Automation tools will aid job holders in the generation of standardised reports. Thus, the role will shift from manual, time-intensive document generation to defining rules for Intelligent Automation systems 	<ul style="list-style-type: none"> Short-term
Identify design, control gaps and risk of threats to independence	<p>H</p> <ul style="list-style-type: none"> AI & Analytics and Intelligent Automation tools will automate the monitoring and flagging of control gaps and rule-based non-conformance 	<ul style="list-style-type: none"> Short to medium-term
Review internal control frameworks and recommend changes to the client's internal controls and business processes	<p>M</p> <ul style="list-style-type: none"> AI & Analytics tools facilitate the scanning and monitoring of internal control and business process, and provide insights to facilitate the provision of recommendations Human intervention is still required to ensure the quality and relevance of data sources, and to determine the relevance of data processing and findings Cloud computing tools will facilitate the process of information sharing from clients which allows job holders to have a preliminary view of the client's situation, thus streamlining the engagements With information stored in the cloud, job holders need to understand the cybersecurity risks involved and ensure the right measures are in place to mitigate risks 	<ul style="list-style-type: none"> Short to medium-term
Support the team in providing advice and business insights to the organisation by identifying opportunities and making recommendations	<p>H</p> <ul style="list-style-type: none"> AI & Analytics and Intelligent Automation tools will support the gathering and processing of information, and the provision of recommendations 	<ul style="list-style-type: none"> Short-term

9 Job dashboard – Senior Internal Auditor/Internal Auditor (2/2)

[Contents](#)[Section Top](#)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	 <p>HIGH degree of change in tasks</p>
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role in the future

Moving forward, this job role will leverage technology to generate reports, monitor control gaps and receive information from clients at a faster pace by following applicable frameworks on governance, risk management and control. Job holders will focus on defining rules for Intelligent Automation systems and reviewing outputs to ensure the quality and relevance of data sources.

Technical Skills (TSC) Required

• Auditor Independence	Level 3	• Governance	Level 3
• Business Acumen	Level 3	• Infocomm Security and Data Privacy	Level 3
• Business Innovation and Improvement	Level 3	• Information Gathering and Analysis	Level 4
• Business Process Analysis	Level 3	• Internal Audit Engagement Execution	Level 4
• Cyber Security	Level 3	• Internal Audit Engagement Planning	Level 4
• Data Analytics	Level 4	• Internal Controls	Level 3
• Due Professional Care	Level 3	• Professional and Business Ethics	Level 3
• Enterprise Risk Management	Level 3	• Professional Standards	Level 3
• Financial Statements Analysis	Level 3	• Project Execution and Control	Level 3
• Fraud Risk Management	Level 4	• Risk Management	Level 3

Critical Core Skills (CCS) Required

• Communication	Basic	• Digital Fluency	Intermediate
• Collaboration	Intermediate	• Sense Making	Basic

9 Job dashboard – Internal Audit Assistant Manager (1/2)

[Contents](#)[Section Top](#)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	 MEDIUM degree of change in tasks
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role today

Today, this job role is responsible for developing audit procedures and programmes based on internal audit engagement objectives and scope. The role is involved in supervising internal audit engagements. The role requires job holders to be scrupulous and accountable.

Job tasks today	Impact at task-level/Future view of job tasks	Time horizon
Develop audit procedures and programmes based on engagement objectives and scope	<p>L</p> <ul style="list-style-type: none"> The scope of internal audit engagements is diversifying and requires more cross-disciplinary knowledge so job holders are required to leverage cross-disciplinary teams and subject matter experts in order to access different areas of expertise 	<ul style="list-style-type: none"> Short to medium-term
Assess various risks related to management processes, governance practices, IT, information security and data privacy	<p>M</p> <ul style="list-style-type: none"> As Cloud Computing tools facilitate the process of information sharing from clients, job holders are able to assess the risks faced by the client before an on-site visit. This provides a preliminary view of the client's current state to assist job holders in identifying review focus areas to achieve review effectiveness and efficiency Cloud Computing tools raise cybersecurity concerns, thus, job holders need to understand the cybersecurity risks involved AI & Analytics and Intelligent Automation tools allow for continuous real-time audit and integration of control and assessment points into business processes. Human intervention will still be required to understand the business process, determine the data required and evaluate the quality of data sources 	<ul style="list-style-type: none"> Short to medium-term
Analyse information gathered on the design of business processes, on the effectiveness of internal controls, on the impact of significant changes and IT developments in order to make recommendations	<p>M</p> <ul style="list-style-type: none"> AI & Analytics tools will facilitate the analysis of enterprise-wide information by performing pattern recognition and root cause analysis Human intervention is still required to determine the data required and evaluate the quality of data sources The role is increasingly seen to be a business partner by pre-empting the risks of client's digital transformation 	<ul style="list-style-type: none"> Short to medium-term
Make recommendations to improve business processes	<p>M</p> <ul style="list-style-type: none"> AI & Analytics tools will facilitate the generation of actionable insights. However, the job role is still expected to determine the data required and evaluate the quality of data sources The role is increasingly expected to provide advisory services for the optimisation of operational performance and predict future risks instead of just diagnosing existing risks 	<ul style="list-style-type: none"> Short-term

9 Job dashboard – Internal Audit Assistant Manager (2/2)

[Contents](#)[Section Top](#)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	 MEDIUM degree of change in tasks
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role in the future

Moving forward, this job role will continue developing internal audit procedures and programmes, as well as supervise internal audit engagements. Technology such as Intelligent Automation, AI and Analytics will be leveraged and job holders will focus on understanding business processes in order to provide advisory services such as optimising operational performance and predicting future risks instead of just diagnosing existing risks.

Technical Skills (TSC) Required

• Auditor Independence	Level 4	• Infocomm Security and Data Privacy	Level 4
• Business Acumen	Level 4	• Information Gathering and Analysis	Level 4
• Business Innovation and Improvement	Level 3	• Internal Audit Engagement Execution	Level 5
• Business Process Analysis	Level 4	• Internal Audit Engagement Planning	Level 4
• Cyber Security	Level 4	• Internal Audit Function Management	Level 4
• Data Analytics	Level 4	• Internal Audit Quality Assurance	Level 4
• Digital Technology Environment Scanning	Level 3	• Internal Controls	Level 4
• Due Professional Care	Level 3	• Professional and Business Ethics	Level 4
• Enterprise Risk Management	Level 4	• Professional Standards	Level 4
• Financial Statements Analysis	Level 3	• Project Execution and Control	Level 4
• Fraud Risk Management	Level 4	• Risk Management	Level 4
• Governance	Level 4		

Critical Core Skills (CCS) Required

• Communication	Intermediate	• Problem Solving	Intermediate
• Collaboration	Intermediate	• Digital Literacy	Advanced

9 Job dashboard – Internal Audit Senior Manager/Internal Audit Manager (1/2)

[Contents](#)[Section Top](#)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	<p>MEDIUM degree of change in tasks</p>
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role today

Today, this job role is responsible for determining objectives and scope of internal audit engagements based on risk assessments, staffing and resource management. The role requires job holders to be efficient and objective in executing tasks. Job holders play the role of a trustworthy leader and manage the team to apply and conform to professional standards.

Job tasks today	Impact at task-level/Future view of job tasks	Time horizon
Determine objectives and scope of internal audit engagements based on risk assessments and manage staff and operations to ensure completion of engagements	<p>M</p> <ul style="list-style-type: none"> As the scope of internal audit engagements is diversifying and requires more cross-disciplinary expertise, job holders will experience a diverse range of engagements. Thus, job holders will need to remain mindful of the value provided by the function while determining the objectives and scope As offshoring becomes more common, job holders will be required to upskill in managing offshored resources 	<ul style="list-style-type: none"> Short to medium-term
Evaluate effectiveness and efficiency of governance frameworks, recommendation for improvements to frameworks, potential impact of changes and IT developments on business	<p>M</p> <ul style="list-style-type: none"> As AI & Analytics and Intelligent Automation tools are becoming more common, job holders will focus on interpreting results and assessing actionable insights. Job holders are expected to support operational performance and predict future risks that would prevent the client to reach its business goals Blockchain will enable an immutable audit trail for actions from multiple stakeholders. Thus, the framework will need to be adjusted accordingly. However, blockchain will impact the industry only in the long-term so job holders only need to be aware of the potential impact for now 	<ul style="list-style-type: none"> Medium to long-term
Identify cyber security threats and impact of IT developments, and recommend actions to address IT risks	<p>M</p> <ul style="list-style-type: none"> AI & Analytics tools will facilitate the identification of IT threats and provide actionable insights Human intervention is still required to understand the business process, determine the data required and evaluate the quality of data sources Due to the fast pace of digital transformation, job holders are expected to gain basic knowledge of all the emerging technologies in order to understand the risks and implications 	<ul style="list-style-type: none"> Short-term
Review business insights to focus on value-added opportunities or high-risk areas	<p>L</p> <ul style="list-style-type: none"> Human intervention and in-depth internal audit expertise are still required to review insights. The high-risk areas are increasingly more diverse and therefore job holders are required to stay abreast of trends 	<ul style="list-style-type: none"> Long-term

9 Job dashboard – Internal Audit Senior Manager/Internal Audit Manager (2/2)

[Contents](#)[Section Top](#)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	 MEDIUM degree of change in tasks
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role in the future

Moving forward, this job role will continue overseeing engagements and is expected to leverage AI and Analytics tools to assess clients' operational performance and predict potential risks. In-depth internal audit expertise is still required to review insights, interpret results, assess actionable insights and stay abreast of the different trends impacting clients. Job holders will require more cross-disciplinary expertise as the scope of engagement becomes broader.

Technical Skills (TSC) Required

• Auditor Independence	Level 5	• Infocomm Security and Data Privacy	Level 4
• Business Acumen	Level 5	• Information Gathering and Analysis	Level 5
• Business Innovation and Improvement	Level 4	• Internal Audit Engagement Execution	Level 5
• Business Process Analysis	Level 5	• Internal Audit Engagement Planning	Level 5
• Cyber Security	Level 4	• Internal Audit Function Management	Level 5
• Data Analytics	Level 5	• Internal Audit Quality Assurance	Level 5
• Digital Technology Environment Scanning	Level 4	• Internal Controls	Level 5
• Due Professional Care	Level 4	• Professional and Business Ethics	Level 5
• Enterprise Risk Management	Level 5	• Professional Standards	Level 5
• Financial Statements Analysis	Level 3	• Project Execution and Control	Level 5
• Fraud Risk Management	Level 5	• Risk Management	Level 5
• Governance	Level 5		

Critical Core Skills (CCS) Required

• Developing People	Intermediate	• Self Management	Advanced
• Decision Making	Intermediate	• Sense Making	Advanced

9 Job dashboard – Chief Audit Executive/Head of Internal Audit (1/2)

[Contents](#)[Section Top](#)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	<p>LOW degree of change in tasks</p>
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role today

Today, this job role is responsible for participating in business development and stakeholder interactions. The role manages resources, policies and procedures to ensure completion of internal audit plans. The role requires job holders to be innovative and transformational leaders. Job holders exercise due professional care in the work performed and manage the team to apply and conform to these standards.

Job tasks today	Impact at task-level/Future view of job tasks	Time horizon
Manage resources for policies and procedures of internal audit function to ensure completion of engagements	<p>L</p> <ul style="list-style-type: none"> Due to COVID-19, job holders are required to find ways to better manage, engage and communicate with staff remotely. While managing resourcing largely remains unchanged, job holders have to keep remote workers engaged virtually through various platforms As clients are increasingly more open to remote working arrangements, job holders can assess the possibility to offshore some of the team's tasks as an alternative resourcing option 	<ul style="list-style-type: none"> Short-term
Engage stakeholders to communicate identified areas of opportunities and high risks, and changes to realign to strategic objectives, to improve the internal audit function and support digital transformation	<p>L</p> <ul style="list-style-type: none"> Technology will facilitate communication by providing diverse methods of communication and by tracking some touchpoints and information provided. However, the engagement of stakeholders still requires soft skills AI & Analytics tools will support the gathering and analysis of information that enhances the quality of recommendations and presentation of findings using data visualisation techniques. But, domain expertise and professional judgment are still core to provide proper actionable recommendations and to guide clients 	<ul style="list-style-type: none"> Short-term
Review policies and procedures and recommend strategies to advocate ethics and values within the client's internal audit function and to ensure compliance	<p>L</p> <ul style="list-style-type: none"> Human intervention is still required to review the relevance and efficacy of policies and procedures as in-depth domain expertise, critical thinking, and professional judgment are core to perform the task Ethics and values are growing trends and are key areas of concerns, and thus the role is increasingly expected to take into account these considerations while reviewing policies and risks 	<ul style="list-style-type: none"> Short to medium-term
Promote adoption of governance frameworks and support the client in digital transformation	<p>L</p> <ul style="list-style-type: none"> The role is expected to be a business partner and enable clients' business growth by pre-empting the risks pertaining to clients' digital transformation. Thus, the governance frameworks are expected to support business performance. However, the core task of promoting framework adoption still remains the same 	<ul style="list-style-type: none"> Short to medium-term

9 Job dashboard – Chief Audit Executive/Head of Internal Audit (2/2)

[Contents](#)[Section Top](#)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	<p>LOW degree of change in tasks</p>
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role in the future

Moving forward, this job role will leverage AI and Analytics to provide more data-driven recommendations to clients. Domain expertise and professional judgement are still required as job holders continue guiding clients in pre-empting risks and ensure new trends such as ethics and values are considered when reviewing policies and risks. The role will continue to drive business growth and is expected to drive better engagement and operational efficiency.

Technical Skills (TSC) Required

• Auditor Independence	Level 6	• Infocomm Security and Data Privacy	Level 5
• Business Acumen	Level 6	• Information Gathering and Analysis	Level 6
• Business Innovation and Improvement	Level 5	• Internal Audit Engagement Execution	Level 6
• Business Process Analysis	Level 6	• Internal Audit Engagement Planning	Level 6
• Cyber Security	Level 4	• Internal Audit Function Management	Level 6
• Data Analytics	Level 5	• Internal Audit Quality Assurance	Level 6
• Digital Technology Environment Scanning	Level 5	• Internal Controls	Level 6
• Due Professional Care	Level 4	• Professional and Business Ethics	Level 6
• Enterprise Risk Management	Level 6	• Professional Standards	Level 6
• Financial Statements Analysis	Level 3	• Project Execution and Control	Level 6
• Fraud Risk Management	Level 6	• Risk Management	Level 6
• Governance	Level 6		

Critical Core Skills (CCS) Required

• Developing People	Advanced	• Collaboration	Advanced
• Decision Making	Advanced	• Communication	Advanced

10 Job dashboard – Business Valuation Associate/Business Valuation Executive (1/2)

- [Contents](#)
- [Section Top](#)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	<p>MEDIUM degree of change in tasks</p>
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role today

Today, this job role is responsible for the execution of deliverables and working hands-on during the valuation analysis including valuation of intangible assets and participating in stakeholder interactions.

Job tasks today	Impact at task-level/Future view of job tasks	Time horizon
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Perform fieldwork and follow-up actions in accordance with standards and guidelines for the subject matter and purpose of valuation	<p>M</p> <ul style="list-style-type: none"> Analytics and Intelligent Automation tools will support research activities about the client, industry and competitors by scanning through a huge volume of data and information to support their financial models and valuation analysis. This saves time and reduces errors in data compilation Focus will shift from information gathering to validating outputs and interpreting the information gathered For repetitive follow-up actions (e.g. sending out reminder emails), job holders can leverage Intelligent Automation tools to automate processes 	<ul style="list-style-type: none"> Short to medium-term
Maintain quality and ongoing improvements in the valuation process	<p>L</p> <ul style="list-style-type: none"> To engage job holders and ensure cost efficiency, administrative and repetitive activities will be outsourced or offshored to neighbouring countries. Hence, job holders can focus on higher-value activities such as exploring opportunities to improve existing valuation processes to meet changing client expectations Human intervention continues to be important as job holders review and validate the work performed by outsourced or offshored teams while looking for areas to improve the valuation process Job holders will also need to maintain up-to-date on the relevant standards and guidelines to ensure overall quality 	<ul style="list-style-type: none"> Short-term
Prepare content for engagement with stakeholders	<p>M</p> <ul style="list-style-type: none"> Business valuation reports prepared for stakeholders can be stored in the cloud, streamlining the process of information sharing and enabling efficiency of collaboration within teams Job holders need to understand the cybersecurity risks involved and ensure the right measures are in place to mitigate risks 	<ul style="list-style-type: none"> Short-term

10

Job dashboard – Business Valuation Associate/Business Valuation Executive (2/2)

[Contents](#)

[Section Top](#)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	<p>MEDIUM degree of change in tasks</p>
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role in the future

Moving forward, this job role will leverage Analytics and Intelligent Automation tools to support the execution of deliverables and activities involved in valuation analysis. There will be an increasing focus on validating outputs, interpreting information and engaging in continuous interactions with stakeholders. Job holders will also need to review the deliverables performed by outsourced/offshore teams and ensure quality deliverables are delivered in a timely manner.



Technical Skills (TSC) Required

• Benchmarking	Level 3	• Financial Modelling	Level 3
• Business Acumen	Level 4	• Macroeconomic Analysis	Level 3
• Business Development	Level 3	• Professional and Business Ethics	Level 3
• Business Planning	Level 4	• Stakeholder Management	Level 3
• Corporate and Business Law	Level 3	• Taxation Laws	Level 3
• Data Analytics	Level 4	• Valuation Approaches and Methodologies	Level 3
• Data Governance	Level 4	• Valuation Conclusion and Reporting	Level 3
• Digital Technology Environment Scanning	Level 3	• Valuation of Different Classes of Interest	Level 3
• Financial Analysis	Level 3	• Valuation Research and Analysis	Level 3

Critical Core Skills (CCS) Required

• Collaboration	Basic	• Learning Agility	Basic
• Digital Fluency	Basic	• Problem Solving	Basic

10

Job dashboard – Business Valuation Senior/Business Valuation Senior Executive (1/2)

[Contents](#)
[Section Top](#)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	<p>MEDIUM degree of change in tasks</p>
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role today

Today, this job role is responsible for managing the valuation exercise for client engagements including valuation of intangible assets. Job holders are also expected to interact with stakeholders to manage project deliverables and overall timelines.

Job tasks today Impact at task-level/Future view of job tasks Time horizon

Review fieldwork and perform follow-up actions to monitor progress as well as apply relevant valuation-related standards and guidelines	M	<ul style="list-style-type: none"> Analytics and Intelligent Automation tools will support the development of financial models and help to drive a more transparent, efficient and logical conclusion Job holders will need to review the outputs of the financial model and assess the business risks based on the various scenarios in the model. Hence, business acumen and critical thinking are required For administrative and repetitive tasks that are outsourced or offshored to neighbouring countries, job holders will need to review their outputs to ensure the accuracy of deliverables Human intervention will remain important to ensure compliance with relevant standards and guidelines 	<ul style="list-style-type: none"> Short to medium-term
Propose solutions to address lapses in quality assurance in the valuation process	L	<ul style="list-style-type: none"> Continue to rely on strong problem solving skills, in order to maintain and improve quality in the valuation process Technical knowledge will remain important for the role to understand the value in utilising different valuation approaches to limit potential errors and reduce risks 	<ul style="list-style-type: none"> Short-term
Interact with stakeholders to manage project deliverables and timelines	M	<ul style="list-style-type: none"> Cloud Computing tools will be utilised to share deliverables with stakeholders. Job holders need to understand the underlying cybersecurity risks and ensure responsible use of digital information With clients expecting more advisory services, job holders need to be adaptable and have learning agility across various industries to better engage clients in conversations 	<ul style="list-style-type: none"> Short-term

10

Job dashboard – Business Valuation Senior/Business Valuation Senior Executive (2/2)

[Contents](#)
[Section Top](#)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	<p>MEDIUM degree of change in tasks</p>
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role in the future

Moving forward, job holders will leverage financial models developed by Analytics and Intelligent Automation tools and the focus is to review outputs and business risks, thus driving a more transparent, efficient and logical conclusion. Job holders will need to manage the outsourced/offshore teams to ensure that quality outputs are delivered. Job holders will need to focus on high-value tasks, tap on their technical expertise to solve problems and provide clients with advisory services.

Technical Skills (TSC) Required

• Benchmarking	Level 4	• Macroeconomic Analysis	Level 4
• Business Acumen	Level 4	• Professional and Business Ethics	Level 4
• Business Development	Level 4	• Project Execution and Control	Level 4
• Business Planning	Level 4	• Project Feasibility	Level 3
• Corporate and Business Law	Level 4	• Stakeholder Management	Level 4
• Data Analytics	Level 4	• Taxation Laws	Level 4
• Data Governance	Level 4	• Valuation Approaches and Methodologies	Level 4
• Digital Technology Environment Scanning	Level 4	• Valuation Conclusion and Reporting	Level 4
• Financial Analysis	Level 4	• Valuation of Different Classes of Interest	Level 4
• Financial Modelling	Level 3	• Valuation Research and Analysis	Level 4

Critical Core Skills (CCS) Required

• Collaboration	Intermediate	• Digital Fluency	Intermediate
• Communication	Basic	• Sense Making	Intermediate

10 Job dashboard – Business Valuation Manager (1/2)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role today

Today, this job role is responsible for managing valuations including valuation of intangible assets, generating and supporting the business, conducting quality control, providing technical leadership as well as sourcing appropriate staff for the team.

Job tasks today	Impact at task-level/Future view of job tasks	Time horizon
Evaluate fieldwork and review progress of engagement and recommend follow-up steps	<p>M</p> <ul style="list-style-type: none"> Analytics tools will help to support conclusions in valuation analysis by complementing qualitative and quantitative inputs alongside professional judgement Analytics will enable the detection of anomalies or inconsistencies for further analysis and help to mitigate risks that may arise 	<ul style="list-style-type: none"> Short-term
Foster quality and continuous improvement in the valuation process and evaluate solutions to address lapses in quality assurance	<p>L</p> <ul style="list-style-type: none"> Changing client expectations will continue to drive the need for operational efficiency. Hence, job holders need to assess the current valuation process and explore how emerging technologies and outsourcing/offshoring options can be leveraged Strategic thinking and business acumen continue to play a key role where job holders need to challenge current ways of working Professional judgement is still required to assess solutions for lapses in quality assurance and ensure multiple valuation approaches have been accounted for, in order to drive quality 	<ul style="list-style-type: none"> Short-term
Evaluate content, risks and threats of engagements and manage stakeholder expectations	<p>L</p> <ul style="list-style-type: none"> Professional judgement remains necessary as job holders need to evaluate business valuation reports, assess business risks, share best practices and provide enhanced value to clients COVID-19 resulted in the shift towards virtual meetings and job holders need to learn how to continue managing client expectations through digital platforms 	<ul style="list-style-type: none"> Short-term

10 Job dashboard – Business Valuation Manager (2/2)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role in the future

Moving forward, this job role needs to constantly evaluate the current valuation process to drive operational efficiency and explore how technology and outsourcing/offshoring options can be leveraged. Technology such as Analytics tools will drive more data-driven insights, thus providing more robust recommendations together with professional judgement.

Technical Skills (TSC) Required

• Benchmarking	Level 4	• Macroeconomic Analysis	Level 5
• Business Acumen	Level 5	• Professional and Business Ethics	Level 5
• Business Development	Level 5	• Project Execution and Control	Level 5
• Business Planning	Level 5	• Project Feasibility	Level 4
• Corporate and Business Law	Level 5	• Stakeholder Management	Level 5
• Data Analytics	Level 4	• Taxation Laws	Level 5
• Data Governance	Level 4	• Valuation Approaches and Methodologies	Level 5
• Digital Technology Environment Scanning	Level 4	• Valuation Conclusion and Reporting	Level 5
• Financial Analysis	Level 4	• Valuation of Different Classes of Interest	Level 5
• Financial Modelling	Level 5	• Valuation Research and Analysis	Level 5
• Financial Statements Analysis	Level 5		

Critical Core Skills (CCS) Required

• Collaboration	Intermediate	• Problem Solving	Intermediate
• Decision Making	Advanced	• Sense Making	Advanced
• Developing People	Intermediate		

10 Job dashboard – Business Valuation Partner/Business Valuation Director (1/2)

[Contents](#)
[Section Top](#)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	<p>LOW degree of change in tasks</p>
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role today

Today, this job role is responsible for various functions including generating business, growing the BV practice, conducting quality control, providing technical leadership as well as sourcing appropriate staff for the team. The role is seen as a subject matter expert and possesses a considerable amount of valuation experience including the valuation of intangible assets. Job holders are also responsible for the quality of technical output and risk management.



Job tasks today	Impact at task-level/Future view of job tasks	Time horizon
Lead the valuation and evaluate the relevant valuation standards and guidelines for consistency with subject matter and purpose of the valuation	<p>L</p> <ul style="list-style-type: none"> Job holders will need to focus on driving operational efficiency where they look at opportunities for outsourcing/offshoring and drive the incorporation of technology into the valuation process It is also important to consider how valuation approaches need to be updated as a result of COVID-19 Human intervention will remain necessary to proactively manage changing client expectations and identify new ways to bring value to valuations 	<ul style="list-style-type: none"> Short-term
Foster an environment that promotes quality and continuous improvement in the valuation process	<p>L</p> <ul style="list-style-type: none"> Human intervention will be necessary to remain updated about evolving trends and external factors such as economic and political uncertainty, evolving regulations and overall impact of technology including making decisions on how to incorporate these considerations into relevant processes Job role continues to be required to ensure that sufficient controls are in place to adhere to quality standards 	<ul style="list-style-type: none"> Short-term
Lead stakeholder engagements by forming strategic relationships and evaluating risks and threats of engagements	<p>L</p> <ul style="list-style-type: none"> Changing client expectations will drive the need for more specialised sectoral knowledge and focus Human intervention will remain necessary to build and maintain relationships, identify opportunities for cross-functional collaborations, as well as to identify opportunities to provide more value-added services to clients 	<ul style="list-style-type: none"> Short-term

10 Job dashboard – Business Valuation Partner/Business Valuation Director (2/2)

[Contents](#)
[Section Top](#)

Trends impacting this role					Impact Assessment
Artificial Intelligence (AI) & Analytics	Blockchain	Changing Public/ Client Expectations	Cloud Computing	Workforce Challenges	<p>LOW degree of change in tasks</p>
Cybersecurity	COVID-19	Move towards Outsourcing & Offshoring	Intelligent Automation		

Responsibilities of the role in the future

Moving forward, job holders will need to proactively look for opportunities to drive operational efficiency (e.g. use of technology or outsourcing/offshoring lower-value work). Being a subject matter expert, job holders need to stay abreast of trends within the sector and clients are expecting more specialised sectoral knowledge. Hence, there are more opportunities to collaborate with cross-functional teams moving forward

Technical Skills (TSC) Required

• Benchmarking	Level 5	• Macroeconomic Analysis	Level 5
• Business Acumen	Level 6	• Professional and Business Ethics	Level 6
• Business Development	Level 6	• Project Execution and Control	Level 6
• Business Planning	Level 6	• Project Feasibility	Level 5
• Corporate and Business Law	Level 5	• Stakeholder Management	Level 6
• Data Analytics	Level 4	• Taxation Laws	Level 5
• Data Governance	Level 4	• Valuation Approaches and Methodologies	Level 6
• Digital Technology Environment Scanning	Level 5	• Valuation Conclusion and Reporting	Level 6
• Financial Analysis	Level 4	• Valuation of Different Classes of Interest	Level 6
• Financial Modelling	Level 6	• Valuation Research and Analysis	Level 6
• Financial Statements Analysis	Level 5		

Critical Core Skills (CCS) Required

• Collaboration	Advanced	• Developing People	Advanced
• Decision Making	Advanced	• Sense Making	Advanced



Appendix II: Self-Assessment Questionnaire (SAQ) for Organisations

Overview Self-Assessment Questionnaire (SAQ) for Organisations

WHAT IS THE PURPOSE OF THIS SELF-ASSESSMENT QUESTIONNAIRE (SAQ)?

The self-assessment questionnaire aims to **guide accounting practices** to support **upskilling and/or reskilling efforts** in their organisations.

HOW DOES THE SELF-ASSESSMENT QUESTIONNAIRE (SAQ) WORK?

There are a total of **4 personas** in this matrix. Based on the description, you are required to identify one persona that **best represents your current organisation**. According to the persona identified, there will be recommended next steps shared for your organisation.

Step 1: Determine your organisation's persona
(Choose 1 out of the 4 options)

Step 2: Understand next steps based on identified persona in step 1

<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Learning today is driven by:</p>	<p>Persona B</p> <ul style="list-style-type: none"> Digital Explorer Learning co-driven by employers and employees <p>Focus on digitalisation</p>	<p>Persona D</p> <ul style="list-style-type: none"> Digital Leader Learning co-driven by employers and employees <p>Keep abreast of sector trends</p>
	<p>Persona A</p> <ul style="list-style-type: none"> Digital Explorer Learning driven by employees <p>Focus on digitalisation & learning</p>	<p>Persona C</p> <ul style="list-style-type: none"> Digital Leader Learning driven by employees <p>Focus on learning</p>
	<p>Workforce digitalisation readiness</p>	

Step 2b: Next steps

With rapid changes in the business environment, accounting practices are encouraged to **review their business priorities and identify growth areas** periodically, to meet the sector's demands. The below resources are available to guide accounting practices **identify growth areas and support upskilling/reskilling efforts** of their workforce.

Available sources:

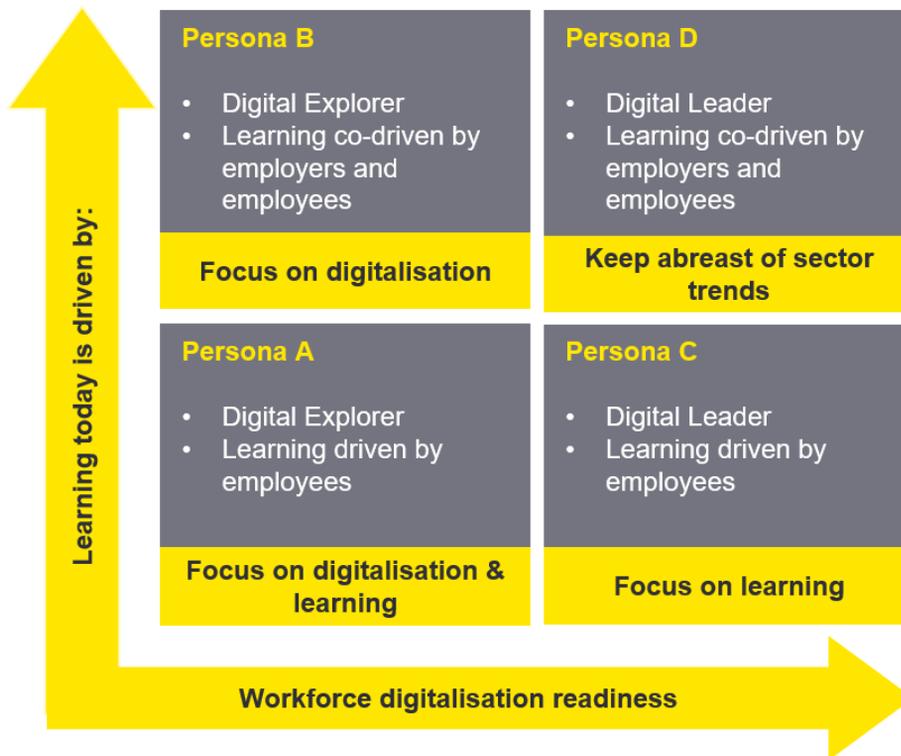
- Understand how megatrends and technology trends will impact jobs and skills in the sector
 - Click [here](#) to understand the impact and skills that are in demand at a functional track level.
 - Click [here](#) to understand how each tasks will be impacted and the skills required at a job role level
 - For the definitions of Technical Skills and Competencies (TSCs), click [here](#).
 - For the definitions of Critical Core Skills (CCSs), click [here](#).
- Examples of available interventions you can tap on
 - Click [here](#) to understand the recommendations and interventions that can facilitate your organisation's growth
- For organisations who are in Persona D ("Digital Leader"), "Learning is co-driven by employers and employees" can explore diversifying your service lines/sub-service lines to grow your advisory business
 - To expand existing services lines/sub-service lines (e.g. Internal Audit practitioners to cover Risk Advisory services, Assurance practitioners to provide Financial Forensics services or Restructuring & Insolvency practitioners to provide Mergers & Acquisitions and Business Valuation services), click [here](#) to understand how to further diversify your business

Step 1: Determine your organisation's persona using the below matrix (Overview)

WHAT ARE THE 4 PERSONAS?

There are 2 dimensions used to determine your organisation's persona today.

1. **The level of digitalisation readiness in your workforce**
2. **How learning is driven in your organisation**



Step 1a: Determine the **level of digitalisation readiness** in your workforce today

Instructions: Select the profile that best describes your organisation's current state (Choose 1 out of 2).

The level of digitalisation readiness in your workforce

Digital Explorer

The organisation is in the midst of its digitalisation journey to streamline work processes (e.g. automation). There are upskilling/reskilling initiatives to help employees leverage technology in work processes.

- Employees are handling and sharing documents with clients in **electronic and hard copies**, through postal mails and emails
- There are operational efficiencies as there is a pool of talent who are skilled in performing **repetitive and transactional activities**
- There are operational efficiencies as **technology tools** are used to **automate existing work processes** that are repetitive and transactional, to manage a larger volume of work and reduce human errors
- Employees are being **upskilled to use technology tools** that **support the automation** of existing work processes
- Junior employees are still focusing on repetitive and transactional activities. With the increasing use of technology, they are starting to **move towards reviewing deliverables**, which increases their job satisfaction

Digital Leader

The organisation is at the forefront of technology adoption, where work processes are being streamlined. Employees are proficient in using technology such as data analytics to provide insights and drive conversations with clients.

- Employees are mainly handling and sharing **electronic documents** with clients through **emails**. Documents are uploaded on a document sharing platform (e.g. OneDrive, Sharepoint) where clients can access them at their convenience
- There are operational efficiencies as employees **leverage technology tools to analyse data and share insights** with our clients instead of doing manual calculations
- Employees are **upskilled in technology tools to analyse data and derive insights for clients**
- Business operations are **shifting towards advisory services** (e.g. Internal Audit practitioners provide Risk Advisory services, Tax Compliance practitioners provide International Tax advisory services, Assurance practitioners provide Financial Forensics services)
- Junior employees focus on **analysing trends, identifying patterns from the data sources** and highlighting anomalous areas in more complex tasks, which increases their job satisfaction

Note: The above are guiding questions to identify your organisation's persona. It is not required to meet all criteria listed above

Step 1b: Determine how learning is driven in your organisation today

Instructions: Select the profile that best describes your organisation's current state (Choose 1 out of 2).

How learning is driven in your organisation

Driven by employees

Employees express interest in learning areas and the organisation provides upskilling opportunities on a needs basis.

- Our **learning priorities are determined by employees. Interest** to acquire specific skills and/or based on **training programmes offered by professional bodies**
- There is **no mandated training required**
- Collecting employee's feedback on the training provided is done **informally on an ad-hoc basis**

Co-driven by employers and employees

The organisation has a learning roadmap that is aligned to its business priorities and works together with its employees to determine their learning needs. Employees play an important role to drive their learning. There are processes in place to track and measure the effectiveness of these learnings.

- We identify growth areas and priorities within the business to **develop a learning roadmap for specific job roles**
- We have **guiding principles on the minimum training hours** an employee needs to complete. We often highlight to them how these training will complement the hands-on-learning in their job and that individuals should drive their own learning
- We have a post-training **feedback form** where employees need to evaluate the effectiveness of the training

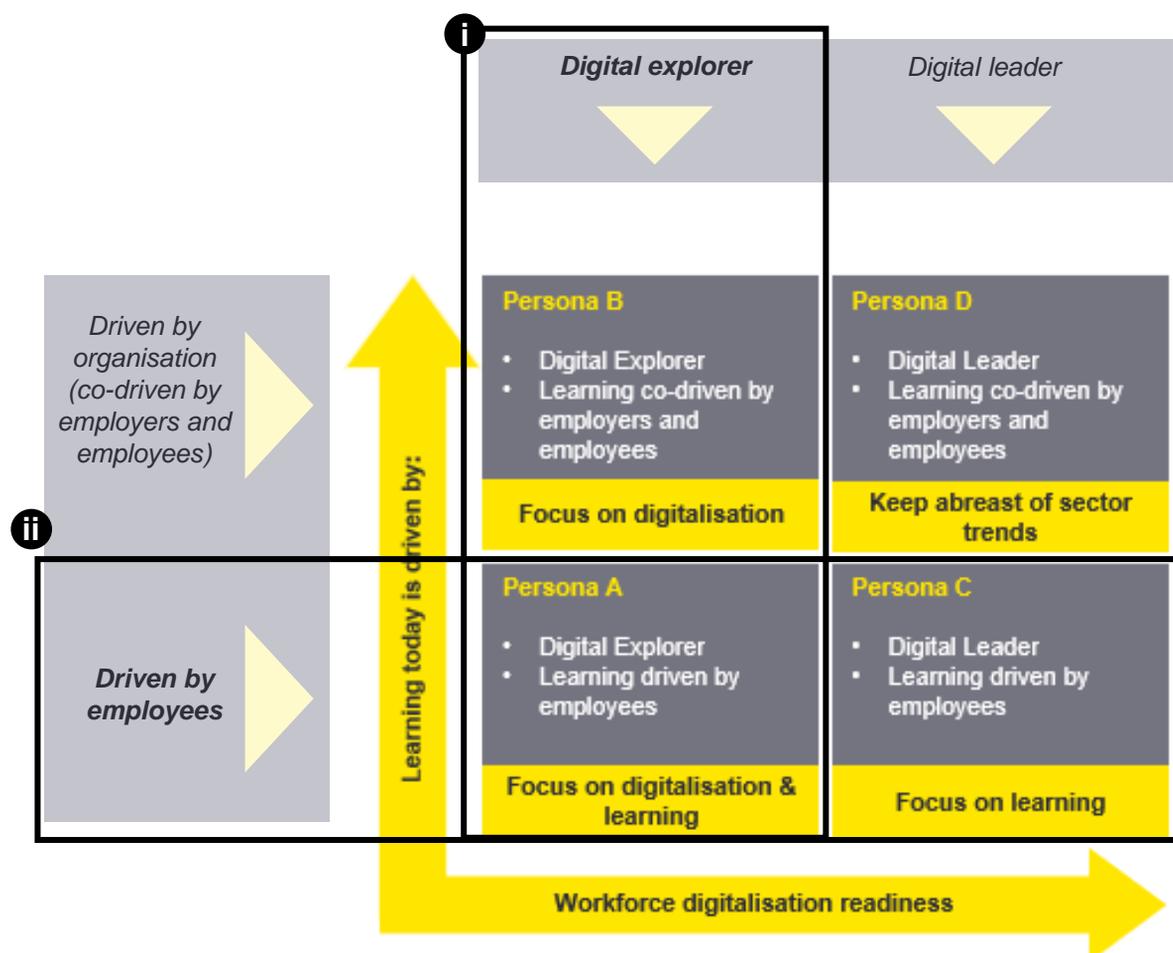
Note: The above are guiding questions to identify your organisation's persona. It is not required to meet all criteria listed above

Step 1c: Determine your organisation's persona according to the 2 profiles selected

Instructions: Based on your assessment, combine the results from 1a & 1b, determine your organisation's persona.

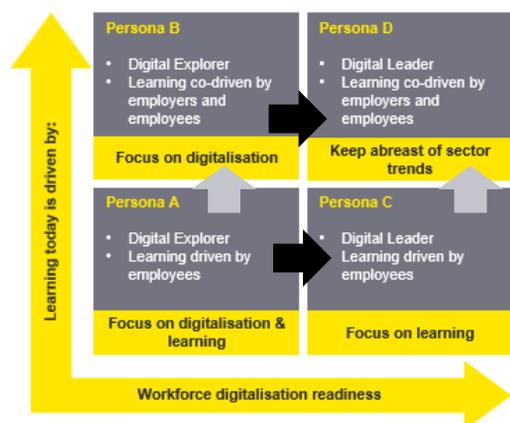
Example:

- i. Organisation was identified as a **"Digital Explorer"**
 - ii. Learning was identified to be **"Driven by employees"**
- } **Persona A** is identified for organisation



Step 2: Understand next steps based on identified persona

Instructions: According to your persona, determine the focus for your organisation.



a The broad pathways to focus on:

If your organisation is **PERSONA A**, the recommended pathway is to **DIGITALISE** and **CO-DRIVE LEARNING WITH YOUR EMPLOYEES**.

If your organisation is **PERSONA B**, the recommended pathway is to **DIGITALISE**.

If your organisation is **PERSONA C**, the recommended pathway is to **CO-DRIVE LEARNING WITH YOUR EMPLOYEES**.

If your organisation is **PERSONA D**, the recommended pathway is to **KEEP ABREAST OF SECTOR'S TRENDS** and **CONTINUE GROWING YOUR BUSINESS IN THE ADVISORY AREAS**.

How do I progress from my current persona:

Progression pathway	You should aspire to move:	
	From	To
ai Level of digitalisation readiness in your workforce Target: Aim towards "Digital Leader" to drive workforce improvements	Persona A	Persona C
	Persona B	Persona D
aii How learning is driven in your organisation Target: Aim towards "Learning co-driven by employers and employees"	Persona A or C	Persona D

See next page for more details

Step 2a **i** & **ii**: Next steps/Progression Pathway: Improve workforce digitalisation readiness



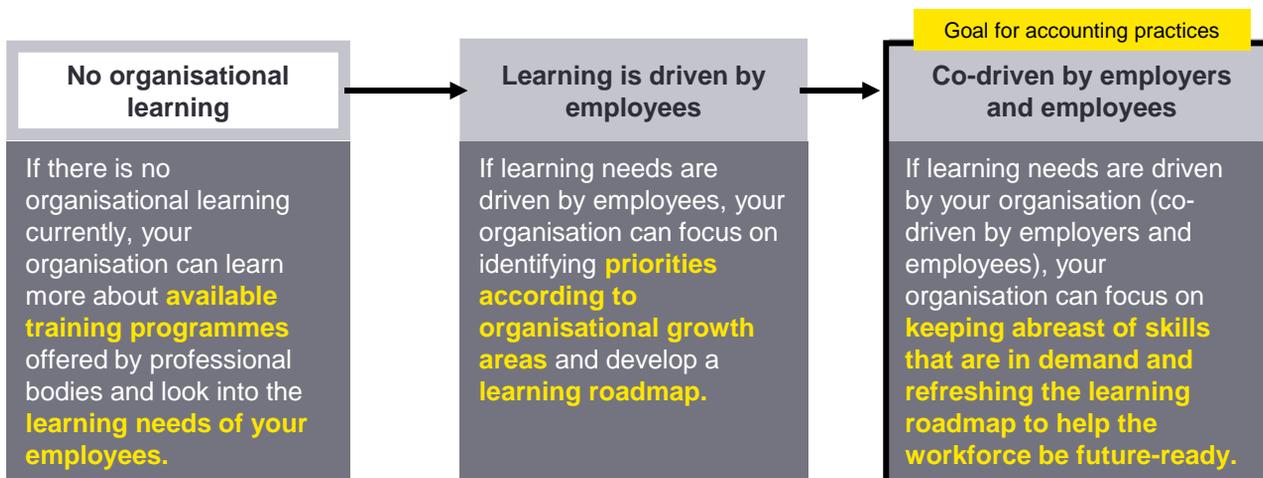
➔ Progression pathway **i** Improve workforce digitalisation readiness

Instructions: Depending on the current state of your organisation, you should aim to progress to be a “Digital Leader”.



⬆️ Progression pathway **ii** How learning is driven in your organisation

Instructions: Depending on the current state of your organisation, you should aim towards “Learning is co-driven by employers and employees”.



Step 2b: Next steps



With rapid changes in the business environment, accounting practices are encouraged to **review their business priorities and identify growth areas** periodically, to meet sector demand. The resources below are available to guide accounting practices **identify growth areas and support upskilling/reskilling efforts** of their workforce.

Available resources:

1. **Understand how megatrends and technology trends will impact jobs and skills in the sector**
 - Click [here](#) to understand the **impact and skills that are in demand at a functional track level**
 - Click [here](#) to understand **how each tasks will be impacted and the skills required at a job role level**
 - For the definitions of Technical Skills and Competencies (TSCs), click [here](#)
 - For the definitions of Critical Core Skills (CCSs), click [here](#)



Manpower study of Singapore-based accounting practices



Impact and in-demand skills at a functional track level*



Impact and skills at a job role level

2. Examples of available interventions you can tap on

- Click [here](#) to understand the **recommendations and interventions** that can facilitate your organisation's growth



3. Organisations who are in Persona D ("Digital Leader", "Learning is co-driven by employers and employees") can explore diversifying your service lines/sub-service lines to grow your advisory business

- To expand existing services lines/sub-service lines (e.g. Internal Audit practitioners to cover Risk Advisory* services, Assurance practitioners to provide Financial Forensics services or Restructuring and Insolvency practitioners to provide Mergers and Acquisitions and Business Valuation services), click [here](#) to understand how to further diversify your business



*Note: Risk Advisory represents the Enterprise Risk Management functional track in SFw for Accountancy

Appendix III: List of industry outreach participants

Stakeholders engaged in the study (1/2)

NO.	ACCOUNTING PRACTICES
1	Baker Tilly TFW LLP
2	BDO LLP
3	Crowe Horwath First Trust LLP
4	CSI & Co PAC
5	Deloitte & Touche LLP
6	Ernst & Young LLP
7	Foo Kon Tan LLP
8	Grant Thornton Audit LLP
9	Helmi Talib & Co
10	Heng Lee Seng LLP
11	In.Corp Global Pte Ltd
12	Koh SH & Associates Pte Ltd
13	KPMG LLP
14	Kreston Ardent CAtrust PAC
15	Lo Hock Ling & Co
16	Mazars LLP
17	Nexia TS PAC
18	Philip Liew & Co
19	Pioneer Management Services Pte Ltd
20	PKF-CAP LLP
21	PricewaterhouseCoopers LLP
22	Reanda Adept PAC
23	RSM Chio Lim LLP
24	Steven Tan Russell Bedford PAC
25	Stone Forest CorpServe Pte Ltd
26	TMF Group
27	Tricor Singapore Pte Ltd
28	UHY Lee Seng Chan & Co
29	YFK PAC

Stakeholders engaged in the study (2/2)

NO.	PROFESSIONAL/REGULATORY BODIES
1	Institute of Singapore Chartered Accountants (ISCA)
2	Accounting and Corporate Regulatory Authority (ACRA)
3	Chartered Secretaries Institute of Singapore (CSIS)
4	Institute of Internal Auditors Singapore (IIA Singapore)
5	Inland Revenue Authority of Singapore (IRAS)
6	Singapore Chartered Tax Professionals (SCTP)
7	Insolvency Practitioners Association of Singapore (IPAS)
8	Institute of Valuers and Appraisers, Singapore (IVAS)

NO.	INSTITUTES OF HIGHER LEARNING (IHLs)
1	National University of Singapore (NUS)
2	Nanyang Technological University (NTU)
3	Singapore Institute of Technology (SIT)
4	Singapore Management University (SMU)
5	Singapore University of Social Sciences (SUSS)
6	Nanyang Polytechnic (NYP)
7	Ngee Ann Polytechnic (NP)
8	Singapore Polytechnic (SP)
9	Temasek Polytechnic (TP)
10	SIM Global Education (SIM GE)

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