The Digital Edge: Technology Skills & Competencies for **Chartered Accountants**

Building expertise through Competency Model

2025

Prepared by The Digital Assurance and Accounting Board of ICAP

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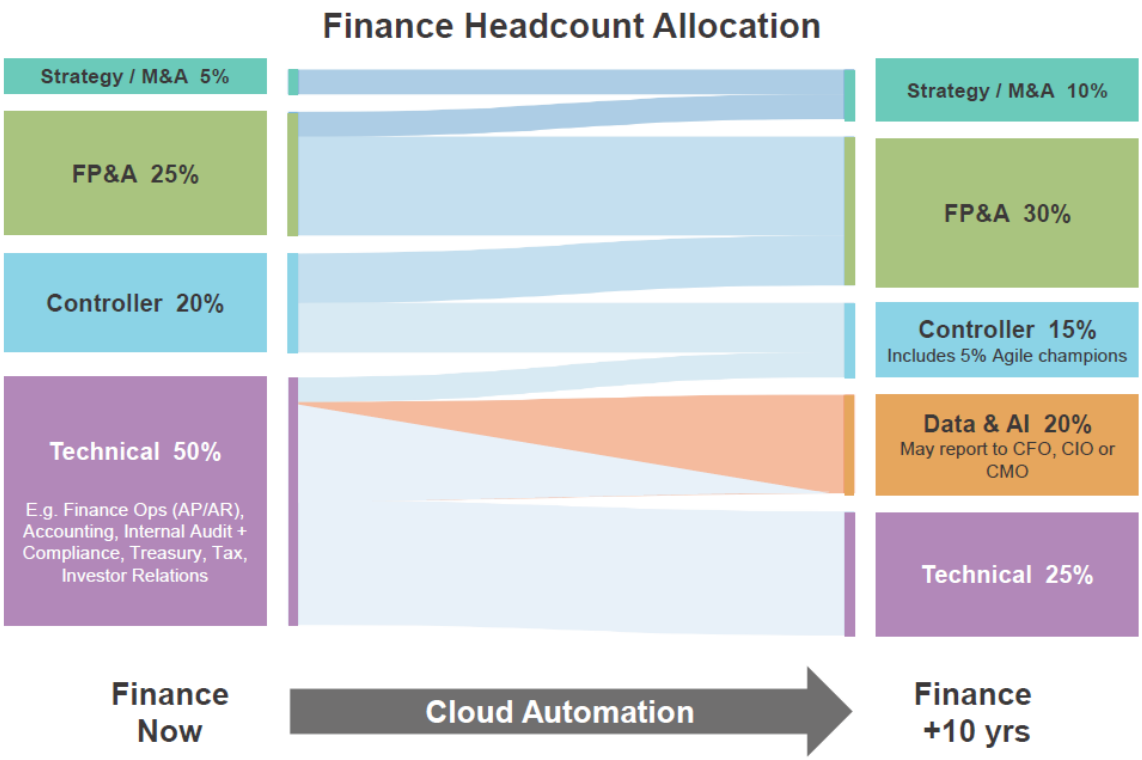
1. Preamble

In today's digital-first business environment, the role of Chartered Accountants (CAs) is evolving beyond traditional number crunching and financial stewardship to Data Guardians and business strategists (Appendix A). As organizations increasingly rely on integrated information systems, data analytics, and real-time reporting, it is no longer possible to perform most of the financial and accounting operations without engaging IT. Use of IT systems, especially in these areas has led to increased functionality, improved accuracy, faster processing, better reporting and proliferation of business software and tools. CAs are expected to operate at the intersection of finance and technology with increasing proficiency (Appendix B) as time progresses. Developing strong IT competencies is no longer optional - it is essential for driving value, ensuring compliance, and providing strategic insights that enhance business performance.

2. Finance Jobs at Risk of Automation

The increasing tide of automation is reshaping the finance profession in ways that demand strategic foresight, as noted in relevant global studies (Appendix C). The World Economic Forum reports that roles rooted in routine processes—such as accounts payable/receivable clerks, data entry clerks; accounting, bookkeeping and payroll clerks, accountants and auditors, business, services and administration managers, material-recording and stock-keeping clerks are particularly vulnerable, due to the evolution of machine learning and AI systems which could evolve to enable replacement of these roles with Data Scientists and Analysts, AI and Machine Learning Specialists and Big Data Specialists who can complete these tasks with speed and accuracy. Also, jobs in Strategy/M&A and FP&A are projected to rise over 5% while Controller and Technical would struggle with 5% reduction due to conversions due to automation. However, automation is not a sole threat—it is also a catalyst for professional reinvention. The future lies in upskilling toward advisory, strategic analysis, and ethical oversight, areas where human judgment, contextual understanding, and professional skepticism are irreplaceable. The Chartered Accountant needs to transform into forward-looking experts who harness technology, rather than compete with it.

FINANCE +10 YEARS: PEOPLE



Finance +10 years: People - Finance Headcount Allocation
Source: World Economic Forum

3. Path to the future of Finance

Studies show that the CA of the future will have to embrace tools and processes, and innovate technology to save time and improve productivity, improve results and save time, and reinvest the saved time and money. The CA would need Innovate Automation will be essential to teams increasing the focus on work that enables Value-Addition.

The future CA would be responsible for:

- Clean Data: provide oversight on normalizing and standardizing data
- Automate Processes: standardize and automate (RPA)
- Transition to Cloud: scale and value
- Use Big Data + Analytics: derive insight and decision support
- Integrate AI+ML: predict and recommend.

4. ICAP's Approach for Digital Fluency

The Institute of Chartered Accountants of Pakistan (ICAP), in pursuit of its strategic vision to develop future-ready CAs, has established a Technology Skills and Competencies Model to guide finance professionals and Boards to embed technological proficiency throughout the CA's professional lifecycle. The Model is grounded in global best practices and aligned with international frameworks for finance professionals (Appendix C) that have been referred for its development, and these show that CAs will need to acquire relevant skills and competencies in the digital era.

To enhance digital fluency in CAs', ICAP's Board is championing a cohesive digital strategy that aligns with global standards in audit and assurance. This includes driving comprehensive certification programs such as Data Analytics, Technology Assurance, and Intelligent Automation, integrating these into CPD frameworks, and ensuring modular pathways for specialized digital domains. Strategic investments in digital platforms and partnerships with tech firms and global accounting bodies will further anchor this vision.

Training initiatives are designed to go beyond theoretical exposure—ICAP is scaling up its digital study platforms across all exam stages, hosting hands-on workshops on technologies, and establishing mentorship networks connecting digitally fluent members with others. Collaborations with universities and industry partners can embed digital accounting in academic curricula and offer practical, tech-driven learning experiences to future professionals.

5. Approach and Methodology used to design the Technology Skills and Competencies Model

ICAP has defined clear technical skills and competencies at each stage of the career journey to ensure relevance, consistency, and practical applicability (Appendix A). The competency development cycle is structured as follows:

a. Initial Professional Development – Before Training
   (Student before CA practical training who has secured Certificate in Accounting & Finance (CAF))
b. Initial Professional Development – During Training
   (Student under CA practical training who has achieved the status of Certified Finance & Accounting Professional (CFAP))
c. Entry to Mid - Level
   (Freshly Qualified Chartered Accountant with up to 5 years of experience)
d. Senior Level
   (Chartered Accountant with up to 15 years of experience)
e. Leadership
   (Fellow Chartered Accountant with more than 15 years of experience)

At each stage, the model ensures that technology skills in areas such as digital fluency, IT & cyber risk management, data science, ERP, and emerging technologies such as AI and automation are not only introduced but progressively deepened. This structured and dynamic approach enables ICAP members to confidently lead in the digital economy with integrity, adaptability, and strategic foresight.

This model also identifies the core IT competencies that empower Chartered Accountants to meet contemporary business challenges with confidence and agility. From leveraging data analysis tools to ensuring cybersecurity and navigating enterprise systems, these skills bridge the gap between technical fluency and financial acumen. By aligning IT proficiency with professional standards and ethical responsibilities, CAs can play a pivotal role in shaping digital transformation across industries.

The evolution of core IT skills and competencies has been charted from the time a CA student joins the CA program after completing Pre – Requisite Competencies (PRC) / CAF level through levels including training, entry / mid-level, senior level

and leadership level. At each level the changing responsibilities, expectations and enhanced experience have been considered to ensure that competence matches the requirements of emerging technologies and evolving technology landscape. Studies from various leading CA institutes and accounting bodies were considered, and input was obtained from a diverse range of experienced accounting, business and technology professionals.

7. Career Progression of Chartered Accountants

The career journey of a Chartered Accountant is marked by a progressive accumulation of knowledge, skills, and responsibilities. ICAP's Technology Skills Model for finance professionals maps out this evolution across five distinct stages, i.e. from a student entering the profession with foundational knowledge to a seasoned leader shaping strategic direction (Appendix A). Each stage reflects a blend of academic milestones, practical exposure, and increasing technical and behavioral competencies at certain level of proficiency (Appendix B). The model ensures that Chartered Accountants are not only equipped with current digital and IT capabilities but also prepared to adapt, lead, and innovate in a rapidly transforming business and technological landscape.

The following are the key stages of this professional journey:

S.No.	Stage on Professional Journey	Explanation
1.	Initial professional development before training	Individuals at this stage have completed Pre – Requisite Competencies (PRC)* and CAF** levels, including: - a paper of Data, system and risks and - a hands-on course on MS Office for Business They demonstrate foundational digital fluency, including effective use of standard office applications, awareness of IT risks and controls, and the ethical implications of technology in business., and achieve a well-rounded foundation in professional competencies in technology. (Student before CA practical training who has secured Certificate in Accounting & Finance i.e., CAF.)
** Please refer to the Glossary for the list of papers to be completed at the PRC level.* ***Please refer to the Glossary for the list of papers to be completed at the CAF level.*		
2.	Initial professional development during training	These individuals are currently undergoing their mandatory CA article training. They have completed the Certified Finance and Accounting Professional (CFAP)*** level along with hands-on courses in AI & Data Analytics. Through this combination of academic and practical learning, they acquire advanced technical and professional competencies essential for modern business and financial environments. They are learning to apply rules, procedures, and theoretical knowledge to successfully complete allocated tasks, and develop user role IT control competencies. They work under general direction within a clear framework of accountability. Exercise substantial personal responsibility and autonomy. Make operational level judgements applying technical principles, and accounting concepts and techniques to competently perform in known, and often, unfamiliar situations. Undertake sets of mainly routine, familiar tasks involving a number of steps, as well as some tasks that are non-routine.

		(Student under CA practical training who has attained the level of Certified Finance and Accounting Professional, i.e., CFAP*.) **Indicative Roles titles** include: Students undergoing training progress through three official designations during their training period: 1. Assistant Trainee 2. Associate Trainee 3. Senior Associate Trainee This tiered progression not only reflects increasing levels of responsibility but also aligns with academic milestones (e.g., passing specific CAF or CFAP papers) and practical skill development across key professional domains.
**** Please refer to the Glossary for the list of papers to be completed at the CFAP level.*		
3.	Entry to Mid-Level	At this stage, individuals begin to consolidate their technical knowledge with real-world business exposure, developing leadership potential, strategic thinking, and domain-specific expertise. These professionals are often on the path to mid-level leadership roles and may also begin to specialize in areas like taxation, audit, advisory, sustainability, data analytics, or financial strategy. • Hands-on employee, could work in one of many roles • Role likely to mix depth and breadth, e.g., working on multiple client engagements or projects, supporting a business unit, or performing one function for several business units • Unlikely to have many formal direct reports but may supervise a small team and informally lead or develop others. They demonstrate Manager role competencies, and take up assurance provider and evaluator roles in firms. • Often focused on the short to medium term and takes direction rather than setting it • Relationships likely to extend beyond the immediate finance team to internal cross-functional partnering and interacting with external advisors or client teams. (Freshly Qualified Chartered Accountant with up to 5 years of experience.) **Indicative Roles titles** include: • Assistant Managers, Managers or Directors in Audit or Advisory firms • Financial Controller, Internal Audit Manager, Accounts Controller, Financial Operations Manager, Assistant Manager Audit/ Finance / Accounts • Accountant/ Senior Accountant • Finance Analyst / Senior Financial Analyst, Business Analyst

		• Risk & Compliance Officer • Company Secretary
4.	Senior Level	These individuals: • should be managing a team, function, division or business unit and often has formal direct reports • Works across all areas of the finance team or specialist technical areas, and demonstrate designer role competencies. • multi-task between a portfolio of clients or the needs of several business stakeholders, plus operational and people management responsibilities–resource allocation, delegation, training needs, recruitment, managing the financial performance, and/or business development activity. • balance short term operational needs with the longer-term direction of the organization, may provide input to the strategic plan, work on business transformation projects, transactions • work with leaders of the organization to drive financial performance, rigor and compliance and maintains relationships with relevant external advisors (Chartered Accountant with broad range of professional experience.) **Indicative role titles** include: • Audit or Advisory Partners with over 5 years' experience • Finance Director, Treasurer • Accountant/Senior Accountant • Manager/Senior Manager • Financial Controller, FP + A roles, and • Senior Financial Planning & Analysis Manager.
5.	Leadership Role	• Experienced leader responsible for the governance of an organization, or advising others at this level • Work with other leaders and the board to drive the strategic direction of the organization, influencing its long-term direction • Internal and external role model, example of integrity and ethical behaviors. • Drive compliance in accordance with the business charter, ensuring communication of the strategic plan and empowering others to deliver • Maintain strong network of senior professionals • Must have a comprehensive industry knowledge. (Fellow Chartered Accountants with significant experience.) **Indicative Role titles** include: • Senior Partner in Audit, Tax or Advisory Firm • C-Suite (CFO, COO, CEO) • Senior Finance Director

A. IT Technical Skills and Competencies for Initial Professional Development before training (CAF)

Below are the key technical skills and behavioral competencies expected at the initial professional development stage (before training):

S. No	Skill Area	Defined Technical Skills	Proficiency Level
1.	Data Science	Understand Data Science and how to use data (including for big data) effectively with the support of technology and IT systems, and manage associated risks to enhance organizational efficiency, informed decision-making, and information security. Specifically, students will: - Possess elementary knowledge of regulations and frameworks pertaining to COBIT, ISO 27001, ETGRMF, and local regulations, etc. - Understand basic Excel data functions, and how to enhance data analytics and decision-making.	P1 P1 P1
2.	IT Governance & Compliance	Consider IT Strategy, IT Architecture, Systems Acquisition, Development and Implementation, IT Project Management, IT Change Management, and Analyze technological disruption and opportunities for IT Governance to ensure alignment of IT strategy with business strategy and compliance requirements.	P1
3.	IT & Cyber Risk Management	Understand - risks related to IT processes and describe mitigating IT general and application controls. - the use of data analytics and automated tools, Computer Assisted Audit Techniques, Test Data and Audit Software. -	P1
4.	Digital Fluency	Understand, explain and use ICT tools adequately and consider their impact on business and world. Demonstrate adaptability to evolving technologies by effectively using basic Microsoft Word, Excel and PowerPoint.	P2
5.	ERP Systems	Learn about ERP tools and understand how they may be used to support financial reporting.	P1
6.	AI & Emerging Technologies	Understand AI, Robotic Process Automation and Emerging Technologies, and their use for the finance professional. Specifically, students will:	P1

		- Gaining practical experience of using Artificial Intelligence (AI) tools such as ChatGPT, Co-Pilot, Deep Seek, etc. and Generative AI as part of the hands-on course of MS Office for Business. - Understand how AI techniques, such as machine learning and deep learning enhance data analytics and decision-making. - Understand emerging technologies including artificial intelligence, blockchain technology, fintech and Internet of Things and their potential impact on business systems.	P1 P1

S. No.	Competency/ Soft Skills	Defined Competencies
1.	Teamwork – Awareness Level	Teamwork enhances CAs' IT capabilities by enabling seamless and effective collaboration across tech-integrated finance environments. It equips CAs to bring numbers to life, work effectively with IT professionals on automation, cybersecurity, and data systems, ensuring financial processes are both efficient and compliant. This synergy helps transform CAs into strategic partners in digital transformation, where shared knowledge and coordinated execution drive smarter financial decisions.
2.	Responsibility – Awareness Level	Responsibility strengthens CAs' IT capabilities by anchoring their tech-driven decisions in accountability, compliance, and ethical governance. As CAs adopt systems like automated audits and cloud-based reporting, responsibility ensures they uphold data integrity, safeguard client confidentiality, and make transparent decisions—even when technology scales complexity. This competency turns IT tools from mere enablers into trusted platforms for principled financial stewardship.
3.	Trustworthiness & Ethics – Awareness Level	Trustworthiness and Ethics are the backbone of CAs' evolving IT skillset. As Finance becomes more tech-centric—with AI-driven forecasts, cloud accounting, and automated audits—these competencies ensure that technology is wielded with integrity. CAs with strong ethical judgment can navigate complex digital systems without compromising client confidentiality, compliance standards, or data authenticity. By embedding trust and ethical rigor into every tech-enabled decision, they don't just operate systems—they steward them responsibly, earning stakeholder confidence in an increasingly digital financial landscape.

B. IT Technical Skills and Competencies for Initial Professional Development during training

Below are the core technical skills and behavioral competencies expected during the initial professional development stage while undergoing CA training (CFAP level):

S. No	Skill Area	Defined Technical Skills	Proficiency Level
1.	IT Governance & Compliance	Demonstrate basic organizational skills and knowledge of regulations and frameworks pertaining to COBIT, ISO 27001, ETGRMF, and local regulations, etc., and support alignment of IT strategy to business strategy, and compliance with relevant regulations and requirements for financial reporting and information/cybersecurity.	P1
2.	IT & Cyber Risk Management	Demonstrate basic knowledge of IT risk assessment and appropriate mitigation of identified risks related to cyber and IT threats during audits and reviews as role of IT in Audit and Financial is very important for understanding and testing IT controls. Utilize audit software and related digital tools to support audit planning, risk assessment, materiality determination, control testing, walkthrough documentation, substantive procedures, and audit conclusions.	P2
3.	Data Science	Develop reasonable expertise in Data Science including use of: - data (including for big data) management, analysis and business intelligence to respond to the needs of emerging workplace. - Power BI for data analysis and visualization / visual dashboards, Python for Data Description and Diagnostics, Artificial intelligence and Robotic process automation.	P2
4.	Digital Fluency	Understand, explain and use ICT tools adequately and consider their impact on business and world. Demonstrate adaptability to evolving technologies by effectively using basic Microsoft Word, Excel and PowerPoint.	P2
5.	ERP Systems Application	Apply ERP tools, including cloud based, to support financial reporting, inventory management, compliance monitoring, and decision-making across business operations.	P2
6.	AI & Emerging Technologies	Demonstrate understanding of AI, Robotic Process Automation and Emerging Technologies, and their use for work. Specifically: - Use AI techniques, such as machine learning and deep learning to enhance data analytics and decision-making.	P1 P1

		- Support use of emerging technologies including artificial intelligence, blockchain technology, fintech and Internet of Things while understanding their potential impact on business systems.	P1

S. No.	Competency/ Soft Skills	Defined Competencies
1.	Result Oriented – Application level	Being result-oriented sharpens CAs' use of IT by aligning tech proficiency with tangible outcomes including faster audits, improved forecasting accuracy, and smarter financial planning. CAs focus on mastering tools, being purpose-driven and leveraging automation, data analytics, and cloud systems to drive measurable performance gains and contributing meaningfully to stakeholder value.
2.	Commercial Awareness – Application level	Commercial awareness enriches CAs' IT skills by linking technology to real-world business impact. It helps CAs understand how digital tools including financial modeling software, ERP systems, and AI-powered analytics can optimize profitability, reduce costs, and sharpen market strategy. It also enables CAs to choose tech solutions that align with business goals, industry trends, and competitive dynamics, and know why IT matters in the bigger commercial picture.

C. IT Competencies for Entry & Mid-Level Roles

Below are the key technical skills and behavioral competencies expected at the entry to mid-level stage of a Chartered Accountant's professional journey:

S. No.	Skill Area	Technical Skills and Competencies	Proficiency Level
1.	IT Governance & Compliance	Demonstrate reasonable understanding of IT governance and policy making for the organization, and support implementation of frameworks (based on COBIT, ISO 27001, ETGRMF, and local regulations, etc.) within their respective function, and support alignment of IT strategy to business strategy, and compliance with relevant regulations and requirements for financial reporting and information/cybersecurity. Also he develops decision making ability and/or undertakes reporting processes to support financial reporting. Advisory or Audit Managers should possess basic level knowledge of IT environments of their clients' to be able to conduct audits or undertake advisory assignments. Where a qualified CA is working in an area or organization that has minimal use of technology, he would not be expected have an influencing role with regard to IT.	P2 P1
2.	IT & Cyber Risk Management	As a team player for the finance and audit identify the IT and cyber risks and engage in projects/initiatives to manage risks and implement controls and policies.	P2
3.	Data Science	Gain core understanding of Data Science, establish/drive direct organization-wide predictive analytics strategy and perform data mining (including for big data) from various applications and develop analyses for decision-making. Use Advanced Excel, Power Bi, R2 and data analytics.	P3
4.	ERP Systems	Hands on use of Enterprise Resource Planning (ERP) systems, including cloud based, like SAP, Oracle, Microsoft Dynamics.	P2
5.	AI & Emerging Technologies	Support use of AI, and apply the knowledge under guidance in the workplace including new and emerging technologies: - Artificial Intelligence (AI) tools such as ChatGPT, Co-Pilot, Deep Seek, etc. and Generative AI including for anomaly detection, sanctions screening, prevention of Money Laundering, including Trade Based and Terrorism Financing (AML/CFT/ATBML), fraud monitoring for regulatory compliances.	P2

		- Learn Robotic Process Automation (RPA) and Machine Learning (ML) - Learn Blockchain Chain and crypto & digital currency.	
6.	Digital Fluency	Use Information technology and strategy for evaluating management information and performance to develop competitive advantage. Be able to deploy/implement softwares and digital technologies relevant to workplace requirements while adhering to information and cybersecurity protocols.	P2

S. No.	Competency/ Soft Skills	Defined Competencies
1.	Team Work – Application level	Teamwork enhances CAs' IT capabilities by enabling seamless and effective collaboration across tech-integrated finance environments. It equips CAs to bring numbers to life, work effectively with IT professionals on automation, cybersecurity, and data systems, ensuring financial processes are both efficient and compliant. This synergy helps transform CAs into strategic partners in digital transformation, where shared knowledge and coordinated execution drive smarter financial decisions.
2.	Communication & Influence – Application level	Communication and influence are pivotal in maximizing CAs' IT skills by translating technical insights into strategic action. In a landscape driven by analytics, automation, and digital platforms, CAs must articulate complex data clearly to non-technical stakeholders and advocate for tech adoption that aligns with business goals. This competency empowers them to lead digital transformation, persuade decision-makers with evidence-backed narratives, and foster cross-functional buy-in thereby turning tech expertise into enterprise-wide impact.

D. IT Technical Skills and Competencies for Senior Roles

Below are the essential technical skills and behavioral competencies expected at the senior level of a Chartered Accountant's career, typically with up to 15 years of experience:

S. No.	Skill Area	Technical Skills and Competencies	Proficiency Level
1.	IT Governance & Compliance	Demonstrate good level understanding of IT governance and policy making for the organization, and support implementation of frameworks (based on COBIT, ISO 27001, ETGRMF, and local regulations, etc.) within their respective function, and support alignment of IT strategy to business strategy, and compliance with relevant regulations and requirements for financial reporting and information/cybersecurity. Conduct AI-driven financial analysis (including for big data), data analytics or use any other tools for anomaly detection, sanctions screening, prevention of Money Laundering, including Trade Based and Terrorism Financing (AML/CFT/ATBML), fraud monitoring for regulatory compliances. Advisory or Audit Partners should possess good level industry knowledge of IT environments to be able to advise their clients, or in conducting audits. Consider advanced training such as IT Governance (COBIT) or CISA certification (if relevant)	P2
2.	IT & Cyber Risk Management	As a team player play a role in the IT and cyber risk assessments and engage in digital transformation and other projects/initiatives to manage risks and implement controls, data protection and privacy measures, and policies. Gain cross-functional tech knowledge by working with CIOs/CTOs or digital transformation teams. Have a good understanding of risk related to change management, IT budgeting and outsourced services, and carry out digital risk assessment as part of IT management and operational processes. Ensure IT risk management is carried out during audits and reviews.	P2
3.	Data Science	Use data analytics tools proficiently, including advanced excel, Power BI, etc., developing suitable dashboards, and guiding team on their use. As a Data Custodian (including for big data) direct organization-wide predictive analytics strategy, and ensure finance teams generate financial insights, and	P3

		apply predictive analysis for decision making, risk assessment, fraud detection, etc.	
4.	ERP Systems	Demonstrate leadership in utilization and adoption of Enterprise Resource Planning (ERP) systems, including cloud based, like SAP, Oracle, Microsoft Dynamics proficiently, ensure integrity of financial reporting, and support automation and integration with accounting software. Advocate the use of cloud-based solutions and understand their impact on business operations, to leverage cloud computing for scalability and efficiency.	P2
5.	Digital Fluency	Combine understanding of financial and IT to lead implementation of appropriate IT systems, finance/accounting/ERP software and tools, including cloud based, and related controls to address business problems, fintech and ecommerce deployments, while understanding IT Policies and recognising benefits and risks of IT and communication systems, as well as adhering to related data security protocols when operating digital technologies and systems. Apply project management as an Agile Champion, system design, requirements analysis, feasibility study, etc. to take decisions on IT strategy, investments in IT solutions and controlling use of technology for achieving a competitive advantage.	P2
6.	AI & Emerging Technologies	As a key member of the business team, support the adoption of emerging technologies and their use for business operations/work including good level of understanding of ethics, governance and related policies & procedures, especially for the following: - Artificial Intelligence (AI) tools such as ChatGPT, Co-Pilot, Deep Seek, etc., Agentic AI and Generative AI - Robotic Process Automation (RPA) and Machine Learning (ML) - Blockchain Chain and crypto & digital currency. - Cloud-based solutions and understand their impact on business operations.	P2

S. No.	Competency/ Soft Skills	Defined Competencies
1.	Problem Solving - Strategic Level	Problem solving enhances CAs' IT skills by turning digital challenges into strategic breakthroughs. It helps them present data findings with confidence in a story-telling manner. This competency enables CAs to diagnose issues, debug automation hiccups, improve data workflows, adapt financial systems to regulatory change, and craft smart, tech-enabled solutions. It sharpens their ability to translate tech complexity into

		operational clarity—making them not just users of IT, but innovators who elevate financial functions through intelligent problem resolution.
2.	Result Oriented - Strategic Level	Being result-oriented sharpens CAs' use of IT by aligning tech proficiency with tangible outcomes including faster audits, improved forecasting accuracy, and smarter financial planning. CAs focus on mastering tools, being purpose-driven and leveraging automation, data analytics, and cloud systems to drive measurable performance gains and contributing meaningfully to stakeholder value.

E. IT Technical Skills and Competencies for Leadership Roles

Below are the advanced technical skills and leadership competencies expected at the leadership level of a Chartered Accountant's career, typically with over 15 years of experience:

S. No.	Skill Area	Technical Skills and Competencies	Proficiency Level
1.	IT Governance & Compliance	Demonstrate expert level knowledge of IT governance and policy making for the organization, and play a pivotal role in the implementation of frameworks (based on COBIT, ISO 27001, etc.) across the entire IT architecture, and ensuring alignment of IT strategy to business strategy, and manage team compliance with relevant regulations and requirements for financial reporting and information/cybersecurity. Drive AI-driven financial analysis (including for big data), data analytics or any other tools for anomaly detection, sanctions screening, prevention of Money Laundering, including Trade Based and Terrorism Financing (AML/CFT/ATBML), fraud monitoring for regulatory compliances. Encourage use of technology to improve business for the organization, customer servicing and internal processes in order to leverage operational efficiencies.	P3
2.	IT & Cyber Risk Management	Play a pivotal role in the IT and cyber risk assessments and engage in projects/initiatives to manage risks and implement controls, data protection and privacy measures, and policies. Ensure IT risk management is carried out during audits and reviews.	P3
3.	Data Science	As a Data Guardian (including for big data) direct organization-wide predictive analytics strategy, and support finance and business teams for classification and utilization of data, provide guidance for data visualization tools (Power BI, Tableau) for financial insights, and apply predictive analytics for decision making, risk assessment, fraud detection, etc.	P3
4.	ERP Systems	As an Agile Champion, manage the utilization of Enterprise Resource Planning (ERP) systems, including cloud based, like SAP, Oracle, Microsoft Dynamics proficiently, ensure integrity of financial reporting, and oversee automation and integration with accounting software.	P3

		Advocate the use of cloud-based solutions and understand their impact on business operations, to leverage cloud computing for scalability and efficiency.	
5.	AI & Emerging Technologies	Analyse emerging trends and benefits of new business models arising due to technological changes. Lead the implementation of: - emerging technologies such as AI, RPA, blockchain applications and smart contracts - fintech trends and digital finance innovations, crypto & digital currency, - IT/Digital Competency Assessments (DCA) to evaluate enterprise IT maturity.	P2
6.	Digital Fluency	Demonstrate good understanding of the use of cloud-based accounting solutions and financial applications proficiently, their impact on business operations, and leverage cloud computing for scalability and efficiency.	P3

S. No.	Competency/ Soft Skills	Defined Competencies
1.	Critical Thinking - Strategic Level	Critical thinking refines CAs' use of IT by fostering analytical precision and discerning judgment in digital decision-making. With this competency CAs they challenge assumptions, interpret complex patterns, and evaluate the reliability of automated outputs. It enables them to navigate ambiguity in financial technology, assess risks in systems like AI-driven forecasting, and make strategic choices grounded in both logic and ethical insight. Critical thinking enables CAs to ensure IT is interrogated, optimized, and applied with purpose.
2.	Leadership Skills - Strategic Level	Leadership helps transform CAs' IT proficiency into enterprise influence. With this competency, CAs can lead through communicating difficult conversation based on fact-based findings, champion digital initiatives and guide teams through transitions to cloud accounting, automation, or data integration with confidence and vision. It empowers them to set tech strategies aligned with business goals, mentor colleagues in digital adoption, and navigate change with resilience. CAs with leadership skills shape IT trends, drive innovation and elevating Finance as a tech-forward strategic function.

APPENDIX A

Career Progression Mapping of Finance Professions

The Chartered Accountancy qualification provides flexible entry routes to accommodate individuals from various academic backgrounds, while maintaining a high and consistent standard of competence. To ensure a strong foundation, students begin by fulfilling Pre-requisite Competencies (PRC), which equip them with essential knowledge and skills. The structured learning pathway then advances to the Certificate in Accounting and Finance (CAF), focusing on key areas such as financial reporting, taxation, and business management. Building on this, the CFAP (Certified Finance and Accounting Professional) stage hones advanced technical skills, strategic thinking, and professional judgment, preparing candidates for leadership roles in the accounting and finance profession.

S.No.	Feature	Explanation
1.	Entry Routes	ICAP offers flexible entry routes, starting from a minimum qualification of HSSC or A Levels. Individuals may also enter the qualification through various other pathways, including 14- or 16-year degree programs, and professional qualifications from approved accountancy bodies, with exemptions available where applicable. The qualification is open to individuals from all academic disciplines and professions.
2.	Pre-requisite Competencies (PRC)	This stage includes the following papers: • PRC-01 Fundamentals of Accounting • PRC-02 Quantitative Analysis for Business • PRC-03 Business and Economic Insights
3.	Certificate in Accounting and Finance (CAF)	This stage includes the following papers: **Group A** • CAF-01 Financial Accounting and Reporting • CAF-02 Taxation Principles and Compliance • CAF-03 Data, Systems and Risks • CAF-04 Business Law Dynamics – Modified **Group B:** • CAF-05 Management Accounting • CAF-06 Corporate Reporting • CAF-07 Business Insights and Analysis • CAF-08 Audit and Assurance Essentials
4.	CFAP (Certified Accounting	This stage includes the following papers: • CFAP-01 Advanced Corporate Reporting

	And Finance Professional)	• CFAP-02 Corporate Laws and Governance • CFAP-03 Sustainability Reporting and Assurance • CFAP-04 Strategic Business Finance • CFAP-05 Taxation Practice and Planning • *CFAP-06 Audit, Assurance and Data Students are required to complete and pass the assessments of the hands-on course on AI and Data analytics to be eligible to appear in CFAP-06 paper.

APPENDIX B

Proficiency Levels

The proficiency levels outlined in this framework are derived from the International Education Standards (IES) issued by the International Federation of Accountants (IFAC). These levels describe the expected performance outcomes across varying stages of a Chartered Accountant's professional development and reflect the complexity and autonomy associated with each stage. As a member body of IFAC, ICAP has adopted and aligned its proficiency framework with these globally recognized standards.

Level of Proficiency	Description
P1	Typically, learning outcomes in a competence area focus on understanding concepts, performing tasks using appropriate professional skills under supervision, recognizing the role of ethics and solving simple problems. These outcomes are designed for low-complexity, low-ambiguity work environments where supervision is expected. The following detailed outcomes further elaborate on these expectations: • Defining, explaining, summarizing, and interpreting the underlying principles and theories of relevant areas of technical competence to complete tasks while working under appropriate supervision; • Performing assigned tasks by using the appropriate professional skills; • Recognizing the importance of professional values, ethics, and attitudes in performing assigned tasks; • Solving simple problems, and referring complex tasks or problems to supervisors or those with specialized expertise; and • Providing information and explaining ideas in a clear manner, using oral and written communications. Learning outcomes at the foundation level relate to work environments that are characterized by low levels of ambiguity, complexity and uncertainty.
P2	Typically, learning outcomes in a competence area focus on independently applying, analyzing, and comparing; integrating technical knowledge with professional skills to effectively carry out work assignments, demonstrating professional values, ethics, and attitudes in all aspects of work. Learning outcomes at the intermediate level relate to work environments that are characterized by moderate levels of ambiguity, complexity, and uncertainty. The following detailed outcomes further elaborate on these expectations: • Independently applying, comparing, and analyzing underlying principles and theories from relevant areas of technical competence to complete work assignments and make decisions; • Combining technical competence and professional skills to complete work assignments; • Applying professional values, ethics, and attitudes to work assignments; and

Level of Proficiency	Description
	• Presenting information and explaining ideas in a clear manner, using oral and written communication, to accounting and non-accounting stakeholders. Learning outcomes at the intermediate level relate to work environments that are characterized by moderate levels of ambiguity, complexity, and uncertainty.
P3	At the advanced level, learning outcomes emphasize integrating knowledge to lead projects and provide stakeholder-focused recommendations. Combining technical and professional skills to manage and lead effectively. Exercising sound judgment based on ethics and professional values. Solving complex problems with minimal supervision through research and analysis. Proactively addressing challenges by consulting and developing effective solutions. Communicating persuasively with a broad range of stakeholders. These outcomes are designed for highly complex, ambiguous, and uncertain work environments. The following detailed outcomes further elaborate on these expectations: • Selecting and integrating principles and theories from different areas of technical competence to manage and lead projects and work assignments, and to make recommendations appropriate to stakeholder needs; • Integrating technical competence and professional skills to manage and lead projects and work assignments; • Making judgments on appropriate courses of action drawing on professional values, ethics, and attitudes; • Assessing, researching, and resolving complex problems with limited supervision; • Anticipating, consulting appropriately, and developing solutions to complex problems and issues; and • Consistently presenting and explaining relevant information in a persuasive manner to a wide range of stakeholders. Learning outcomes at the advanced level relate to work environments that are characterized by high levels of ambiguity, complexity, and uncertainty.

APPENDIX C

Defining the Digital Skills and Competencies

The Technology Competency Model is a structured mapping of the progression of the technological competencies, starting from CAF level and advancing through each stage of the CA qualification and post qualification.

Research was carried out on the existing work developed by IFAC and various professional institutes worldwide, as outlined below.

The model aligns with the following global frameworks which were referenced to ensure international relevance:

- IFAC International Education Standard 2, Initial Professional Development – Technical Competence: March 2025
- IFAC International Education Standard 3, Initial Professional Development – Professional Skills: March 2025
- IFAC International Education Standard 4, Initial Professional Development – Professional Values, Ethics and Attitudes: March 2025
- IFAC International Education Standard 6, Initial Professional Development – Formal Assessment of Professional Competence -March 2025
- The future of finance: Skills and technologies – Report by ICAEW: June 2022
- CA Capability Model - Chartered Accountants Australia and New Zealand (CA ANZ) Capability Model: November 2024
- CA PATHWAY TO RELEVANCE - POST QUALIFICATION COMPETENCY FRAMEWORK South African Institute of Chartered Accountants (CA SAICA): 2023
- ICAP Digital Competency Assessment: September 2020
- AI and the future of the global Chartered Accountancy Profession – Ipsos UK on behalf of Chartered Accounting World (CAW): May 2025
- Competency Frameworks for Professional Accountants and Auditors - World Bank Centre for Financial Reporting Reform: June 2017 (includes CPA Canada's Competency Map).

6. Acknowledgments

The development of this Technology Skills Model for finance professionals is the result of a collaborative effort involving key stakeholders. We extend our sincere gratitude to the following groups and individuals for their contribution:

Digital Assurance and Accounting Board (DAAB), Institute of Chartered Accountants of Pakistan

ICAP established Digital Assurance and Accounting Board (DAAB) in 2018, with the objective to serve the public interest; to contribute policy recommendations; and to provide support towards embedding technology-based solutions in accounting, assurance and various businesses. Since inception, Digital Assurance and Accounting Board has gained recognition for its proactive initiatives for upskilling the Finance Professionals. The members of the board represent the Council members, Industry/ business/audit firms, government organizations, IT experts, and education institutes. Digital Assurance and Accounting Board of ICAP actively promotes the utilization of emerging technologies, including Artificial Intelligence, Internet of Things, Smart Contracts, Smart Industry, Cyber Laws, Digital Literacy, and Blockchain, in academia, audit firms, and industry, to address all related areas within its scope.

As the Project Sponsor, DAAB played a key role in overseeing the development of this model. The Board provided strategic direction, reviewed drafts at various stages, and guided the consultation process. Upon finalization, the model will be approved through ICAP's internal governance process, including review and endorsement by DAAB before being formally shared with Chartered Accountants Worldwide (CAW) and other stakeholders.