



Our Future Together

Industry Perspectives: Future of Professional Learning and Entrepreneurship



Contents

Foreword	3
Shaping Our Future Together	4
Key Insights	6
Lifelong learning – Past, Present & Future – and ICAEW’s Response	8
Interviews with Singapore’s Thought Leaders	10
Insights from Focus Group Discussion with Employers	23
Insights from Focus Group Discussion with Young Professionals	26
Students Poll Results	28
Insights from Educator, SMU’s Views	30
Interviews with United Kingdom’s Thought Leaders	32
Conclusion	40
Acknowledgement	42

Foreword

We are witnessing the powerful effects of disruptions in the global economy, punctuated by political surprises such as the United Kingdom's referendum result in favour of Brexit last year. These disruptive forces include the increasing pace of technological revolution, which holds ramifications for skills obsolescence. The confluence of these forces has been reshaping the accountancy profession and its future.

One of the answers to these challenges is professional learning. For accountants, it is imperative that they stay relevant and adaptable. In staying relevant throughout their careers, much has to do with being nimble and flexible with one's skill sets and mindset, through lifelong learning. The route to becoming a future-ready accountant lies in education.

Another answer to these challenges is for accountants to adopt an enterprising mindset – the ability to raise questions on business practices, critically think about how to make these processes better and embrace collaboration through the exchange of ideas and resources among stakeholders. Beyond technical accounting knowledge, professional accountants should also strive to become holistic business advisers through acquiring a broader spectrum of knowledge.

Through this second collaboration between ISCA and ICAEW on "Our Future Together", we are keen to shape the discussion on how education, training and professional learning should be redefined to better develop professional accountants who are future-ready. In a digital age, how will accountants continually strengthen the nexus between skills acquisition and utilisation? How will the pedagogy of accounting be shaped with changing times? What are the right skills and competencies a curriculum needs to encompass for one to be future-ready? These are some of the questions we aimed to address in this report.

A quote attributed to Sir Winston Churchill goes: "*A pessimist sees the difficulty in every opportunity; an optimist sees the opportunity in every difficulty*". Our advice to the next generation of professional accountants is to embrace the mindset of an optimist and seize the opportunity in every circumstance.

We hope this report will play a role in engendering deeper thinking about what the future holds for Singapore and the accountancy profession.



Gerard Ee
President
ISCA



Hilary Lindsay
President
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Shaping Our Future Together



A global debate on the skills and jobs of the future has shaped up, sparked by technological developments that have been characterised as the Fourth Industrial Revolution – a technological revolution that is fusing the physical, digital and biological spheres.¹

The accounting profession has not been immune to these developments. Just two decades ago, manual pen-and-paper accounting was largely still the norm. Today, because of technological disruptions, the accounting sector faces the ever-increasing need for IT competency among its professionals. They need to be equipped with IT knowledge and skills to address the challenges and opportunities brought about by big data, analytics and blockchain among others, accompanied by the growing need for standards and regulation.

All these developments have posed salient questions for the future of the accounting profession. How should accountants embrace transformation in the digital age? How should learning be redefined for the accountancy profession? How can organisational culture encourage innovation and an enterprising spirit in accountants?

Singapore provides an interesting case for addressing the challenges of the Fourth Industrial Revolution. As a city-state with no natural resources other than human capital, Singapore is perennially focused on the development of its workforce. In his 2016 National Day Rally speech, Prime Minister Lee Hsien Loong said that disruptive change is the “defining challenge” for Singapore to remain relevant in today’s world.

The government has called for Singapore to transform itself to be ready for a new world. The Committee on the Future Economy (CFE), which the government set up to develop economic strategies to position Singapore well for the future, has unveiled seven strategies. One of the key strategies is for all Singaporeans to acquire deeper and new skills. The Working Group on Legal and Accounting Services, set up under the CFE, reaffirmed that accounting professionals, while building on their core strengths, should also strive to become holistic business advisers.

This report aims to shape the discussion on how education, training and professional learning should be redefined to develop professional accountants who are future-ready, so that they can continue to look forward to a bright future in the new economy that is well underway.

¹Klaus Schwab (2016). “The Fourth Industrial Revolution: what it means, how to respond”. World Economic Forum. Website. Retrieved online on 13 March 2017 at: <https://www.weforum.org/agenda/2016/01/the-fourth-industrial-revolution-what-it-means-and-how-to-respond/>

What Professional Accountants of the Future Need to Know

The route to becoming a future-ready accountant lies essentially in profession learning and adopting an enterprising mindset. Education and professional learning is a lifelong journey. The emphasis on the importance of lifelong learning underscores the thrust of the SkillsFuture initiative launched in 2014.

In this year's Singapore Budget, the government put forward measures to prepare students for the new economy, including reducing over-emphasis on academic achievement and grades while encouraging students to pursue their passions and talents. These are meaningful steps towards changing the way education should work for our children so that they grow up fully prepared for the changes in the economy.

For professional accountants, this could mean more emphasis should be placed on strengthening the nexus between skills acquisition and utilisation, and having the enterprising mindset to adapt their thinking to innovate in the digital age.

For educators, this could mean that the pedagogy of accounting has to change with times to suit the needs of businesses in the present and the future. Tertiary education could also play a role in nurturing and developing the enterprising mindset within students.

For students, this could mean that learning is no longer textbook-based, nor is it about just receiving information and knowledge. Education has to equip them with the aptitude and the right kind of skills to be ready for the work place of tomorrow as well as to prepare them to become life-long learners. An enterprising mindset should be cultivated from young, to remove the stigma and fear of failure.

In this regard, the report captured industry perspectives on the future of professional learning and entrepreneurship through:

1. **Insights from thought leaders of the profession:** We conducted a series of interviews with thought leaders of the profession, both in Singapore and United Kingdom, to gather thoughts and ideas on the future of professional learning in today's accountancy landscape.
2. **Perspectives from the learning journey:** We heard from employers, young professionals² and educators on their perspectives with regard to the future of professional learning, the practicality and challenges of an apprenticeship³ and how we can cultivate an enterprising mindset in accountants.
3. **Poll results:** Singapore's young are our future and they will be the leaders of tomorrow. As part of the report, the Institute conducted a poll with accountancy and business students from local universities and polytechnics on what the future generation has to say about future skill sets needed, apprenticeship programmes and their preferred modes of learning. The poll attracted 1,168 respondents across the participating local universities and polytechnics⁴.

This report is the second collaboration between ISCA and ICAEW after the successful launch of "Our Future Together" report in 2016 to inspire professional accountants to critically think about what the future holds for Singapore and the accountancy profession.

²The term "young professionals" as used in this report refers to those working in accountancy and are below the age of 35.

³For the purpose of this report, "apprenticeship" is used interchangeably with "work-study programme". An apprenticeship is a system of training a new generation of practitioners of a trade or profession with on-the-job training and often some accompanying study. [Source: <https://en.wikipedia.org/wiki/Apprenticeship>]. An internship is not as rigorous as apprenticeship and is typically shorter in terms of period.

⁴For the list of participating local universities and polytechnics, see the acknowledgement section on page 42.

Key Insights

This section provides a summary of the key insights gathered through discussions with thought leaders of the profession, employers, young professionals and students about how education, training and professional learning should be redefined to develop future-ready professional accountants.

1) Leveraging Technology as an Enabler

- The accountancy profession is currently not at the forefront in applying technology in their work. Though big data and analytics have been around for a long time, the accountancy profession has been slow getting on the bandwagon.
- Given that businesses are increasingly using technology, accountants will need to have a certain level of IT competency to remain relevant to today's businesses. One important IT skill that accountants should be equipped with is knowledge/understanding of basic coding (also known as programming) in terms of the framework it operates in and its limitations. This will help them ascertain the feasibility of the software that they have in mind and what can or cannot be done in a program/application. This is in addition to leveraging technology to raise their work productivity.
- Technologies such as artificial intelligence, machine learning, robotics and sensing technology may also have implications for accountants. Though these are presently still seen as very futuristic in terms of actual application to the work of the profession, the potential they possess is immense. For instance, sensing technology is currently capable of reviewing contracts and agreements better and faster than humans.

2) Multi-Disciplinary Skills, Knowledge and Key Attributes Necessary for Today's Workplace

- Today's workplace has become less hierarchical and more of a social setting, partly due to the removal of organisation levels made possible by technology. Furthermore, businesses are actively breaking down internal silos as they increasingly recognise the value of teamwork in today's competitive and fast changing environment.
- Against this backdrop, having multi-disciplinary skills and knowledge, and a commercial mindset, as well as applying a strategic approach to problem solving are needed in today's volatile, uncertain, complex and

ambiguous (VUCA) environment. Skills and knowledge that are considered important for future accountants include psychology, leadership, negotiation, critical thinking, creativity, predictive analytics, understanding of coding, economics, risks, project management, business writing and persuasion skills.

- Traditionally, the emphasis for accountants' training has been on technical skills. While possessing technical skills are as valuable now as ever, these skills are a necessity. The ability of an accountant to continue to deploy these skills, amidst a fast-changing environment, through their interpersonal skills and enterprising approach, is the key to sustaining the accountancy profession.
- The young professionals emphasised the importance of soft skills in the workplace. They found themselves lacking in essential soft skills such as interpersonal and communication skills when they entered the workplace.
- Based on the poll with students, 53% of the respondents ranked soft skills as the most important skill set to stay relevant in the future workplace, while 24% ranked content knowledge and 23% ranked creative thinking as the most important skill set.
- In the past, employers placed emphasis on skills and competencies. Today, attributes such as intellectual curiosity, resilience, adaptability and good emotional intelligence are fast gaining employers' attention.
- An open mind towards cross-department collaboration is necessary given that work today is no longer conducted in silos and work issues are more often than not, multifaceted in nature.

3) Education is Only Part of the Solution to Developing Enterprising Individuals

- Paper qualifications remain important in Singapore's highly competitive environment. However, employers are beginning to express reservations about the over-emphasis on grades. The education system is currently perceived as being theory-based and not practical. There were concerns that curriculums were not keeping pace with the rapid changes happening at present. The implication of this is that graduating students are not work-ready.

- Education is only part of the solution to developing enterprising individuals. The whole eco-system including the environment, upbringing and peer influence, has a role to play in shaping the individual's mindset. An effective platform to develop enterprising young individuals is for them to start an interest group or project with their peers.
- As the world becomes a more globalised market, young accountants should consider pursuing overseas exposure and opportunities. In particular, they should venture into emerging markets like ASEAN, where growth is immense. This would also help them foster a more enterprising and adventurous spirit.
- A more structured internship with a longer duration is recommended. A well-structured internship will have clear and well-defined outcomes for all parties involved. With a longer period of internship, companies can get students to work on assignments, which will provide more meaningful internship experiences for both employers and students.
- Students who have completed their internship can provide valuable feedback on the relevancy of the current undergraduate curriculum. This would enable the undergraduate programme to be updated on a more timely basis, which in turn, helps to make the future graduating cohort more work-ready.

4) Accountancy Profession Welcomes Apprenticeship

- Apprenticeship is welcomed by the accountancy profession.
- Based on the poll results, 79% of the respondents indicated their willingness to undergo apprenticeship, during which one works and studies concurrently.
- One potential challenge with introducing apprenticeship in Singapore will be the mindset of parents. Most parents want their children to finish school as soon as possible, before joining the job market.
- Employers play an important part in determining the success of apprenticeship. For example, employers should be open to flexible work arrangements so that staff under apprenticeship can have work-life balance with time to prepare for and take their examinations.

5) Longer and More Structured Internship Benefits Both Employers and Students

- Internships are important in enabling students to better apply the theoretical knowledge they have learnt in the classroom to real-world problems and gain practical work experience. It is also a good opportunity for students to find out where their passion lies.

- Internship also provides employers with the opportunity to identify, engage and hire the talent they need.

6) Monetary Incentives, Time, Self-Motivation, Employer Support: Top Motivating Factors for Students to be Lifelong Learners

- In terms of what motivate students to be lifelong learners, the top four factors are monetary incentives (22%), time (21%), self-motivation (18%), and employer support (18%) according to the poll results.
- Young professionals recognise the importance of being self-driven to upskill and are already taking personal responsibility for shaping their future. Interestingly, peer pressure was cited as a motivational factor to upskill. They were keen to train in similar areas as their peers.
- Employers expressed that they valued staff who took the effort to acquire new skills and knowledge during their personal time.

Lifelong Learning – Past, Present and Future – and ICAEW’s Response

by Hilary Lindsay

While ongoing education and development have long been part of ICAEW’s requirements for qualified members, IFAC’s International Education Standard, introduced some ten years ago, required professional accountancy bodies to introduce Continuing Professional Development (CPD) schemes for their members and to encourage their commitment to lifelong learning. Lifelong learning is a phrase that we all use. But just what do we mean by it? Where has it come from? And how does it fit in alongside CPD? These questions piqued my interest and I have been exploring them through my research.

At first, professional learning involved Continuing Professional Education (CPE), an approach that was characterised by attending courses and studying technical updates to ensure your knowledge and skills as a professional were up to date. Over the years, CPE gradually morphed into CPD which also embraced informal learning and learning at work. The emphasis had shifted from an individual being educated to the individual taking responsibility for their learning. These aspects are

also inherent in lifelong learning but from my research, I identified a further dimension to it, a proactive iterative aspect whereby an individual learnt through change and changed through learning.

Meanwhile, I found other writers had identified three dimensions to learning – the cognitive dimension (relating to knowledge, skills and understanding), the intrapersonal dimension (how an individual reflects and develops) and the interpersonal dimension (how an individual interacts with others and with their environment). Above I have described how CPE evolved into CPD and then on to lifelong learning. An equivalent development can be traced across the three dimensions in that while the cognitive dimension will always be key, the intrapersonal and interpersonal dimensions are of increasing importance today and in the future.

I drew all these ideas together into my new framework for professional learning, shown at Figure 1.

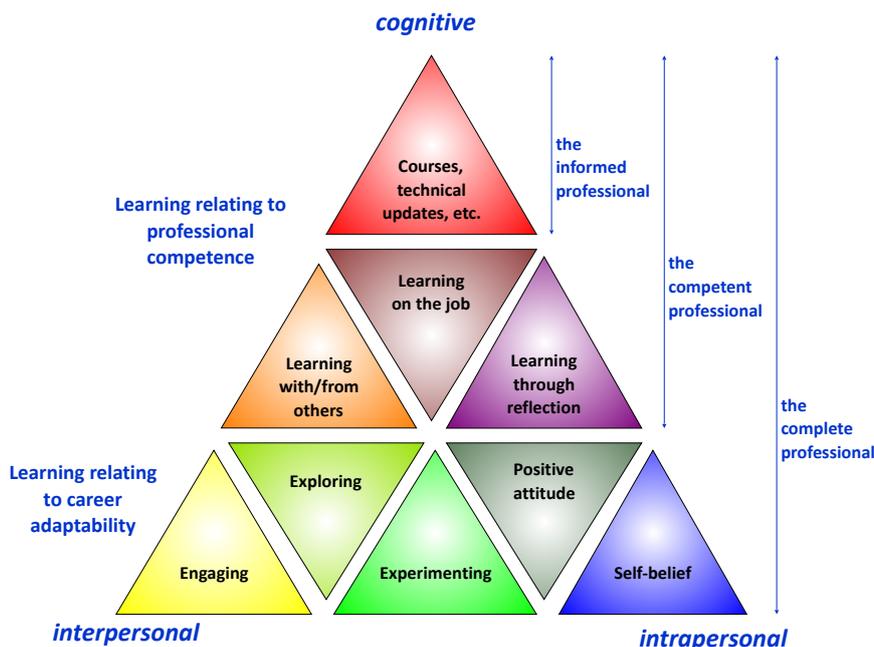


Figure 1 A new framework for professional learning

The framework is built around the three dimensions of learning. It shows that as the world has moved on, it is no longer enough to be an 'informed professional' (equivalent to CPE). Including the next layer leads to a 'competent professional', someone who will undertake learning activities around the top four triangles which reflect many CPD models. However, from my research I found an extra layer of learning which I have described as learning relating to career adaptability. The five elements identified within it run across the interpersonal and intrapersonal dimensions of learning. Together they will help individuals develop themselves by being proactive and seeking out and responding to opportunities. They are the extra ingredients that you need if you are to be a 'complete professional'; they are the ones that will help you have the futures and careers you want.

The five elements identified are:

	<p>Self-Belief Having confidence in yourself and what you can do</p>
	<p>Positive Attitude Being optimistic about the future</p>
	<p>Experimenting Being prepared to try new ideas</p>
	<p>Exploring Finding out what is happening out there in order to see whether it might be relevant</p>
	<p>Engaging Interacting with others and with the environment to seek to influence the future</p>

The ability to adapt and to develop, to reflect and to learn has long been integral to ICAEW's ACA qualification. I am delighted that ICAEW has been reviewing its professional development framework to ensure the ACA remains relevant for employers and students in a changing world. In a commercial environment characterised by rapid technological, regulatory and demographic change, and increased risk, ICAEW's review ensures the professional development framework continues to equip students with the professional skills they need to approach a variety of situations in their future careers.

Through research and stakeholder consultation, the review has identified the increasing importance of lifelong learning and adaptability for future professionals. People skills, proactivity and ownership, critical thinking, risk identification and stakeholder management, were also identified as key skills for future professionals. ICAEW's 2017 refresh of the professional development framework will give greater focus to these skills and signpost the critical role of CPD in their ongoing development.

Lifelong learning will be essential for future professionals as technology, regulation, demographics and risk continue to change and shape the world. ICAEW is responding to this by refreshing its professional development framework to develop adaptable lifelong learners well placed to navigate this changing world.

Hilary Lindsay, President, ICAEW

Interviews with Singapore's Thought Leaders

Interview with Mr Chaly Mah, Chairman, Singapore Accountancy Commission



“ My message to young accountants as they look at the profession is to take the opportunity to think about ‘what can I do to make the profession a lot more exciting? What can I do to help the profession improve and to do things better and faster?’ ”

Key Insights

- Disruptions arise from new business models and new ways of doing things that are facilitated by technology.
- Firms should make innovation an integral part of their business strategy. The strategy is to push accounting firms to think about innovation and disrupt their own business.
- Technologies like artificial intelligence, machine learning, robotics and sensing technology have implications for accountants and lawyers.
- The accountancy curriculum should incorporate basic coding/programming knowledge.
- The Singapore CA Qualification is in line with SkillsFuture's emphasis on lifelong learning where learning after graduation is just as, or even, more important.
- Skills and competencies are different and both are equally important. Skills will help the accountant to do the basic job and these could be mastered through university education and the Singapore CA Qualification. However, competencies are usually gained through 'on-the-job' training.
- Nurture the enterprising mindset from young, preferably from primary school.
- Important for young accountants to continuously learn to acquire new skills to keep up with changes and to build their competencies. Support by employers plays a part in determining the success of apprenticeship.
- Be nimble, be aware of what is happening around them and continue to acquire new skills to stay ahead of the curve.

Technology has popped up several times in the recent CFE report. It is clear that technology is a major disruptor that Singapore is facing and we need to embrace and address it. Besides technology, what other disruptors do you think the profession should also consider? How would the disruptors shape the professional learning and training of Chartered Accountants of Singapore?

There is no doubt that technology has caused some disruptions. In many cases, disruptions arise from new business models and new ways of doing things that are facilitated by technology. If you look at Amazon, people will say they disrupted the bookstore business model because of technology. It is actually not. They just thought of a new way of selling books facilitated by technology. Disruption is more about new ways of doing things.



Let me share an example of disruption in the accountancy profession. For many years, auditors conducted stock counts using a piece of paper and by trying to reconcile what was counted against the ledger. Now, stock counts can be carried out by drones. Another innovative example is the use of mobile apps to scan the inventory and tally immediately with the ledger.

With clients going digital, it is a “do or die” for accounting firms. They will need to leverage technology to stay relevant to businesses and be productive. Though big data and analytics have been around for a long time, the accountancy profession has been slow getting on the bandwagon.

With new ways of doing things, accounting professionals need to have the “dare to dream” mentality. Young accountants should take the opportunity to think about “what can I do to make the profession a lot more exciting? What can I do to help the profession improve and to do things better and faster?”

I look forward to a time when firms have programmes to encourage the young accountants to innovate. Experienced professionals have a role to play in this, for example they can mentor young professionals in testing new solutions or business models.

Firms should make innovation an integral part of their business strategy. The strategy is to push accounting firms to think about innovation and disrupt their own business, just as how Amazon does it. Accounting firms need to continuously think what they can do differently.

Microsoft earns licensing fees for its software. This means that Microsoft continues to earn money even when the consultants and customers are sleeping at night. In the same vein, a combination of time-based and subscription-based billing may be possible for accountancy firms that leverage technology. These are innovative business models for consultants. It is better to disrupt your own business than to have someone else disrupting it for you!

We are often focused on the new skills that we need to acquire to be future-ready for the new economy. However, it is also critical to look into the current skills we have yet to be equipped with and whether there is a need for greater mastery of these skills. What are the current gaps in terms of skills and knowledge that the accountancy profession needs to quickly build?

The accountancy curriculum should incorporate basic coding/programming knowledge. Accountants need to understand basic coding language to ascertain the feasibility of the software that they have in mind and what can or cannot be done in a program/application.

Technologies like artificial intelligence, machine learning, robotics and sensing technology also have implications for accountants and lawyers. They are the future and you may say they do not apply to accountants but I beg to disagree. Lawyers and accountants look at contracts and agreements all the time. Today, they can utilise sensing technology to do that better and faster.

What would you say to a young accountant who may doubt the need to develop deep mastery of skills because of the possibility that it might become outdated in the near future?

I would say both skills and competencies are equally important. Skills will help you to do the basic job and these could be mastered through the university education and Singapore CA Qualification. However, competencies are usually gained through 'on-the-job' training. It is important for young accountants to continuously learn to acquire new skills to keep up with changes and to build up their competencies.

It is a skill when you know how to use a knife to slice raw fish. But you will not become a sushi chef unless you have trained at least ten years with a sushi master. During this period, you develop the skill into a competency. This analogy applies to accountants and there are many examples of how skills and competencies need to be together in order for them to be good accountants.

Do you think the current pathway programmes sufficiently prepare accountants to undertake new opportunities in the new economy?

There was a sense that firms still had to train accounting graduates when they started work. The Singapore CA Qualification is intended to help narrow some of the skill gaps of these graduates where candidates are constantly kept up to speed on changing standards and regulations. At the same time, they are honing their skills in communication, presentation and negotiation. The programme is in line with the SkillsFuture's emphasis on lifelong learning where learning after graduation is just as, or even, more important. To the young generation who wants to keep acquiring new



skills to be a better accountant, I strongly encourage you to go through the Singapore CA Qualification.

What are your thoughts on introducing apprenticeship programme for the accountancy profession? What would be the possible challenges of introducing apprenticeship in Singapore?

I welcome the idea of apprenticeship for the accountancy profession. Apprenticeship is in fact, relevant to all professions. The student need not finish his/her degree programme within three or four years. The ideal apprenticeship programme should span over five to six years for a three-year degree.



With apprenticeship, students would have the benefit to know early if they have interest in the subject they chose. Students need not necessarily have to wait till the end of the study to determine if they like the course and could pursue a career in their field of study.

A problem with introducing apprenticeship in Singapore will be the mindset of parents in terms of how they view education. Traditionally, parents want their children to finish school as soon as possible, before joining the job market. Paper qualifications remain important in this competitive environment. Support by employers play a part in determining the success of apprenticeship, for example giving their employees under apprenticeship time to do their examinations.

Universities could explore the concept of “stackable” modules from different disciplines that could make up a qualification, which would fit well with apprenticeship.

The SAC will be engaging both employers and Institutes of Higher Learning to enhance their talent development schemes and curriculum respectively towards integrating elements of apprenticeship.

As the Co-Chair of the CFE Working Group on Legal & Accounting Services, what had struck you as most refreshing in the course of discussions and why?

The working group had a good representation of lawyers, accountants and young technology talents. It was refreshing for me to know that the Working Group agreed on the importance to embrace disruption in the digital age. There was unanimous recognition, both young and old, experienced and the less experienced, on the need for change.

The CFE report calls for Singapore to “deepen and diversify our international connections”, in particular, to deepen links with overseas partners and seek opportunities in new markets. How can Singapore accountants with their current knowledge and skills be of greater value to emerging markets in the region?

Many Singapore accountants already possess an international mindset as they travel extensively for pleasure or work. Singapore is a very comfortable country to live in and the challenge about internationalisation is getting them to move overseas.

Employers can second their employees to Japan and China, in addition to Europe and USA, to learn different things. China’s Alibaba is clearly way ahead in technology and Singapore could learn from China by seconding people there.

Companies can play a part in building a holistic experience for their secondees. Accountancy firms are already seconding their employees to clients to help employees understand clients’ operations and to gain the business perceptiveness. For example, the Monetary Authority of Singapore welcomes a few secondees from the Big 4 firms annually to learn about regulatory compliance. Correspondingly, MAS could benefit from the audit / advisory experience of the seconded candidates. I think this is an area that we can push companies to do more [of similar secondments].

Do you think it is important for the accountancy profession to have an enterprising mindset / approach to work?

We need to nurture the enterprising mindset from young, preferably from primary school. Primary school activities could get students excited to

think about how to be an entrepreneur, allowing them to gain experience in doing business and dealing with money and being business savvy.

I see the younger generations becoming risk-takers. However, this “risk-taker” mindset remains a challenge in this current rigid education system which focuses excessively on academic results. Society’s mindset must first change to be able to accept failure and learn from it.

In recent years, I am seeing changes in our education system such as the scrapping of secondary school

banding. This is a good sign that the education system is moving away from result-focus to learning-focus. It will take at least ten years before we see the results of it.

Very often, we receive feedback that Singaporeans are very good managers because they are hardworking and can be trusted. However, I do not see many Singaporeans in the role of the Chief Executive Officer (CEO) of a global company. Why is this so? As leaders, the candidate has to be skilled in presentation, be a risk taker and a visionary who is able to tap on opportunities. I see this talent

grooming as challenging because of the way we train our people. There is a need for change. For example, we need to train accountants to speak up among large groups.

In one sentence, what is your advice to the next generation of professional accountants in staying relevant and resilient in today’s volatile, uncertain and disruptive environment?

Be nimble, be aware of what is happening around you and continue to acquire new skills to stay ahead of the curve.



Interview with Mrs Chng Sok Hui, Chief Financial Officer, DBS Group⁵



“Data is the lifeblood of our business, and finance is in the business of delivering better data, better insights and enabling better decisions.”

“Existing internship programme will need to be well-structured, with clear accountabilities and outcomes clarified from the start in order for students to benefit from the internships.”

Key Insights

- Using **DBS** acronym to paint a picture of the capabilities we need: **D**elivering Core Finance; **B**uilding Business Insights and **S**teering Organization Resources.
- Expertise in interpreting data to advise on, shape or solve complex business issues, while enabled by technology and analytics. These require inter-disciplinary skill sets, a commercial mindset and a strategic approach.
- Those who are hungry to learn, hungry to gain new experiences, willing to adapt, and willing to take some risks will thrive in an uncertain future.
- Having an open internal mobility policy will motivate employees to drive innovation.
- With the desire to make new ideas work, there is always scope for a professional accountant to be an internal entrepreneur within the organisation.

Financial technology is fast changing the business models of financial institutions. DBS is known as a heavy hitter in the technology space, having invested substantially in the past six years on IT and innovations, enhancing its abilities in areas such as online and paperless customer engagement. Could you describe how you have seen DBS Finance department or accountants transform to keep up with the pace of fast changing business models? What are the key changes in job scope or workflow that have occurred in DBS Finance department?

Data is the lifeblood of our business, and finance is in the business of delivering better data, better insights and enabling better decisions. I use the **DBS** acronym to paint a picture of the capabilities we need:

Delivering Core Finance; **B**uilding Business Insights and **S**teering Organization Resources

For “**D**elivering Core Finance”, it is about providing data to decision makers fast and as and when it is needed. For example, we now have a fully automated daily balance sheet covering the entire group. It is capable of drilling down to the details such as transaction pricing. This enables us to adjust our funds transfer pricing and balance sheet strategies dynamically in response to insights gleaned from a rich data set.

For “**B**uilding Business Insights”, it is about investing in analytics capability to elevate and shape the conversation with businesses – to focus on what matters, to predict what is coming, and to work with key business leaders to ensure the organization is pulling in the right direction.

For “**S**teering Organization Resources”, it is about framing and

⁵Interview was conducted through email instead of a face-to-face interview.

managing complex trade-offs between profitability, growth and maintaining a fortress balance sheet.

What are the current gaps in terms of skills and knowledge that the accountancy profession needs to quickly build?

The skill sets needed to be successful in each of these areas may differ, but they all have one theme in common: expertise in interpreting data in domain spaces to advise on, shape or solve complex business issues, while enabled by technology and analytics.

These require inter-disciplinary skill sets, a commercial mindset and a strategic approach. By inter-disciplinary skill sets, I am referring to the ability to connect the dots in diverse disciplines such as strategy, economics, risk, regulations and project management, as well as soft skills such as communication, negotiation and influencing skills.

I must admit these are some of the hardest elements to develop in professional accountants, who may not have the opportunity to be exposed to business or other functional areas outside of accounting and finance.

What changes do you think is needed to adequately prepare accountants to undertake new opportunities in the new economy?

To close the skill and knowledge gaps, the employer should selectively bring in new talent from other disciplines, encourage participation in cross-functional projects, encourage job rotation, as well as develop tailored training programmes to broaden the perspectives and skill sets of the Finance team. Some of these programmes include strategic problem solving skills, taking an agile approach to redesign processes etc.

Those who are hungry to learn, hungry to gain new experiences, willing to adapt, and willing to take some risks will thrive in an uncertain future.

In your perspective, what is considered an enterprising accountant? Do you find the young accounting professionals innovative or entrepreneurial in their work?

An enterprising accountant is one who understands the broader vision of an ideal finance function – a function that spends minimal time on routine tasks, reconciliations and reporting on what has happened, but focuses its energies on anticipating trends, delivering better data, better insights and enabling better decisions. At DBS Finance, we have found new ways to deliver contextual analytics to business partners within the bank. Through automation, the Finance department significantly reduced the number of manual journal entries and spreadsheets. This is through constant simplification of processes and adapting our thinking to innovate.

I have observed that the general population of Finance staff are hungry to learn and to contribute, and are committed to put in long hours if needed to complete the task. They believe in the organisation's vision and know that these experiences will open up new opportunities.

How can employers encourage innovation and an enterprising spirit in accountants?

DBS' vision in our next phase of growth is to "Make Banking joyful" by acting like a 22,000-person start-up which is able to respond and innovate quickly to deliver simple, fast and contextual banking in the digital age. We encourage every employee to embrace experimentation, entrepreneurship and innovation.

There is a unit to drive the changes in mindset, tool set and skill set of employees to ensure that these attitudes are embedded deeply within the organisation.

Having an open internal mobility policy will motivate employees to drive innovation. For instance, several of our leaders in finance roles have moved on to senior roles in the business and

have contributed to starting new product lines, driving innovation and developing external partnerships.

We must not pigeonhole ourselves. With the desire to make new ideas work, there is always scope for a professional accountant to be an internal entrepreneur within the organisation.

What are your thoughts on introducing apprenticeship programme for the accountancy profession? What would be the possible challenges of introducing apprenticeship in Singapore?

For the apprenticeship programme, I think the challenge is in aligning the expectations of the student and the employer. Some challenges identified are:

- Would the apprenticeship programme result in a longer period of study for the students?
- Will there be a body that prescribes the type of training that apprentices / students undergo?
- Are employers willing to invest the time commitment and opportunity cost?
- Are there adequate admission opportunities made available to the apprentices / students and whether subsidies are made available for the students who are keen to participate in the apprenticeship programme?

While addressing the above challenges on introducing apprenticeship programme, the existing internship programme will need to be well-structured, with clear accountabilities and outcomes clarified from the start in order for students to benefit from the internships.

In one sentence, what is your advice to the next generation of professional accountants in staying relevant and resilient in today's volatile, uncertain and disruptive environment?

Learn to join the dots in complex spaces and look at problems and solve them in new ways.

Interview with Ms Karen Loon, Banking & Capital Markets Leader and Territory Diversity Leader, PwC Singapore



“ We need to help them build their experience and exposure in different areas. This will enable them to gain different insights which they can share with their clients and be their valued business advisers. This boils down to how we support our young auditors and motivate them to learn and grow, while recognising their need for work-life balance. ”

Key Insights

- Technology is fast changing how audit is being carried out. Auditors are now expected to provide clients with business insights on the data provided. This is a challenge for the profession as auditors are trained to do financial audits, but may not necessarily be equipped with the right skills to analyse data and provide insights.
- University graduates have the basic skills to carry out audits. The challenge is to equip them with the right attributes by the time they reach managerial level.
- Technical capabilities, business and global acumen, relationships, whole leadership⁶, professional scepticism as well as an open mind to embrace new ideas such as technology are key attributes of a successful audit professional.
- The current pathway programmes appear relatively technical and narrowly focused. The programmes need to strike the right balance between assessment and soft skills development. Creative thinking, presentation and writing skills, and application of theoretical knowledge to the work environment in the new economy are also essential elements of a pathway programme.
- Profile the young accountants and what they have achieved in their careers, how the professional qualification and ISCA membership have helped them progress and gained professional recognition, and how the young accountants have leveraged flexible work arrangements.
- Apprenticeship does work for the accountancy profession. This calls for the employers to be open to flexible work arrangements.

In highly disrupted industries such as banking and finance, their business models and practices are fast changing because of changes and advancements in technology. This has implications to how auditors carry out their work which goes back to the skill sets that the audit profession needs to possess to carry out effective audits in today's new business environment. Could you share how have audits changed since the days you started your auditing career?

When I first started my career, audit was conducted manually using paper, pen and a calculator. There was a lot of vouching to do. Back then, the accounting and auditing standards were much “thinner” and less rule-based. There were also fewer regulations and hence, auditors had the luxury of doing more things other than audit which made work interesting for them. Moreover, in the course of it, they developed diversified skills and knowledge allowing them to become well-rounded professionals capable of providing holistic advice to clients.

⁶PwC Professional global career progression framework defines whole leadership as “We need you to lead yourself and others, regardless of your level, by making a real difference in the work you do. This means delivering results in a responsible, authentic, resilient, inclusive and passionate way.”



Now, not only has the number of accounting and auditing standards grown, they have also become more complex and technical. Audit regulations too, have increased drastically. Finally, clients in some industries expect deep business knowledge and global acumen. The outcome of this is, on the one hand, auditors today are more specialised in their field and on the other hand, they may have a narrower view of things. A consequence of this is that the work environment has become more challenging. This is especially so for those who do not like routine work and project management. Some young auditors have shared with me, “Auditing is not for me. It is too detailed. I prefer to do something more creative”.

Technology is fast changing how audit is being carried out. For example, automation and artificial intelligence are capable of handling voluminous data. Auditors are now expected to provide clients with business insights on the data provided. This is a challenge for the profession as auditors are trained to do financial audits, but may not necessarily be equipped with the right skills to analyse data and provide insights.

How has the profile of auditors changed?

There are auditors and there are successful auditors. University graduates have the basic skills to carry out audits. The challenge is to equip them with the right attributes by the



time they reach managerial level. Technical capabilities, business and global acumen, relationships, whole leadership, professional scepticism as well as an open mind to embrace new ideas such as technology are key attributes of a successful audit professional. The accountancy profession has to add value to businesses with their analytical skills and business insights.

The pace of changes is getting quicker than ever. How should an accounting firm prepare to embrace the technological changes that businesses are going through?

Besides financial audit, accounting firms now provide risk assurance services in areas like building digital trust and cyber security in response to clients' increasing use of technology in their businesses. Auditors can apply their auditing skills and knowledge to develop new services for clients.

In terms of embracing technological changes, it is definitely more challenging to stay ahead. For instance, organisations are starting to do transactions using blockchain and using more artificial intelligence. The way we audit is going to have to be different.

Technology has resulted in automation of lower level jobs. Have you seen higher value job roles being created?

In the banking industry, I have seen lower-end accounting jobs being moved out of Singapore. However, I have also seen central functions offshore being used as "centres of excellence". Accounting firms likewise have explored similar models to move functions offshore. For example, firms are using centres of excellence in areas such as data analytics to provide value added services to clients, as well as moving some lower level roles and functions into offshore hubs. Such business models enable firms to tap into the global talent pool regardless of their location. This is different from the past when talent was constrained by geographical region.

Do you think the current pathway programmes sufficiently prepare accountants to undertake new opportunities in the new economy?

There are different schools of thought on this. My personal view is that the current pathway programmes appear relatively technical and narrowly focused. Hence, they may not be helpful for retaining talent in the accountancy profession.

The pathway programmes need to strike the right balance between assessment and soft skills development. Creative thinking, presentation, writing skills and application of theoretical knowledge to the work environment in the new economy are also essential elements of a pathway programme. These would make the programme more attractive especially to those who have a creative and enterprising mindset but may otherwise not stay in the audit profession.

I have always found it interesting that there are many graduates with different degrees like arts, chemistry and engineering, who have studied the ICAEW qualification. Having such a diversified base allows the accountancy profession to think creatively.

What changes do you think is needed for "on-the-job training" to adequately prepare young auditors for the work place?

As a profession, we have to provide opportunities for young auditors to gain different experiences and enrich their learning grounds. When I first started in the profession, I could try many different things which helped to sustain my interest in auditing. Likewise, young auditors today enjoy doing different things as part of their work. Hence, I strongly support job rotation. While this may have an initial impact in terms of meeting the level of technical competencies required in each new role, the firm will ultimately

gain with motivated talents who are up to the challenge and able to think through problems.

I am a big proponent of mobility as one of the ways to train the accountancy profession. For example, overseas secondments will allow an auditor to gain global experience. He/she will also stand to benefit from secondment to clients, even if the scope of work is similar. A different environment (although doing the same thing) will help to open up their minds. While this mobility exercise may be costly, it is no doubt one of the effective ways to engage employees and widen their horizons.

We are often focused on the new skills that we need to acquire to be future-ready for the new economy. However, it is also critical to look into the current skills we have yet to be equipped with and whether there is a need for greater mastery of these skills. What are the current gaps in terms of skills and knowledge that the accountancy profession needs to quickly build?

Personally, I think auditors are equipped with the right basic skill sets. We need to help them build their experience and exposure in different areas. This will enable them to gain different insights which they can share with their clients and be their valued business advisers. This boils down to how we support our young auditors and motivate them to learn and grow, while recognising their need for work-life balance.

Long working hours in our profession has always been an issue especially with the younger generation. If we want to engage the younger generation, the image of the profession has to change. For example, profiling the young accountants and what they have achieved in their careers, how the professional qualification and ISCA membership have helped them progress and gained professional recognition, and how the young accountants have leveraged flexible work arrangements.

Given that businesses are increasingly using technology, auditors and just about anyone will need to have a certain level of IT competency to

understand how data flows about in an IT-centric environment and the IT controls used in business.

What are your thoughts on introducing apprenticeship programme for the accountancy profession? What would be the possible challenges of introducing apprenticeship in Singapore?

Apprenticeship does work for the accountancy profession. This calls for the employers to be open to flexible workplace arrangements.

In one sentence, what is your advice to the next generation of professional accountants in staying relevant and resilient in today's volatile, uncertain and disruptive environment?

Be open and agile to try lots of different things and gain all-rounded skills during the span of your career.



Interview with Ms Susan Chong, Chief Executive Officer, Greenpac (S) Pte Ltd and President of Enterprise 50 Association



“ **Innovation happens when one is hungry for a change. A contented and complacent person will not see a need to improvise, let alone innovate. One must therefore be hungry to pursue betterment and constantly seeking to challenge themselves further.** ”

Key Insights

- Accountants need to be business savvy. They can be business partners by creating value for the business through their financial skills.
- Professional accountants are the best assets that CEOs can have because they know the financial position of the company and the emerging trends that will affect the business.
- Many accountants may appear to lack confidence because of their “quiet” personality. However, there is nothing to limit accountants to just being a CFO. They need to understand what leadership is about.
- Education is only part of the solution to developing enterprising individuals. We need the whole eco-system including the environment, upbringing and the peer influence to make an impact on the individual’s mindset.
- Peer influence may be more effective in motivating the young while mentors are key to indoctrinate them on entrepreneurship.
- Apprenticeship is a good probation period for the employer and student to assess each other’s suitability.
- The next generation must continue to inspire themselves. They must have a dream and stay focused on the dream.

What comes to mind when you think of the word “accountant”? When hiring an accountant today, what do you value most and look out for?

In today’s business environment, accounting is no longer just about bookkeeping and preparing financial statements. Accountants need to be business savvy. They can be business partners by creating value for the business through their financial skills. Professional accountants are the best assets that CEOs can have because they know the financial position of the company and the emerging trends that will affect the business. With this,

the accountant is capable of providing businesses with a wholesome set of perspective and advice.

What are the factors that inhibit accountants from displaying an enterprising mindset at work?

Having an enterprising mindset is linked to the personality of the individual. Accountants are generally more conservative and not very outspoken. Many accountants may appear to lack confidence because of their “quiet” personality, whereby they may choose not to speak up. However, there is nothing to limit

accountants to just being Chief Financial Officers (CFOs). They need to understand what leadership is about.

Leadership means taking ownership of things and engaging with people to create something. One cannot be a leader by working behind the desk in silo. With this quality, accountants are capable of going beyond finance and becoming a CEO. Leadership courses will be beneficial for accountants.

To become business leaders, accountants will need to demonstrate their leadership qualities and possess good interpersonal skills. Today's younger generation has a lot more potential than the older generation as they have greater exposure to the world. They also demonstrate better interpersonal skills.

Do you find the young today having the drive and having an innovative and enterprising mindset to carry out their work?

The younger generation that just entered the workforce have very different background as compared to my time. Now, they grow up in a privilege environment where their parents are more than eager to provide and plan for them. Hence, they need not worry much.

The young today may be very short-sighted in their pursuit of success. They expect success to come fast because they hear a lot of success stories. Such unicorns are far and few between. And it mostly boils down to pure hard work, not luck.

When I talk to start-ups, their plan is to cash out by selling the business within three to five years. But how often do such success stories happen? If you build a company without a vision, the business is not built to last. If the business strategies are short-term, how will the start-up even survive and succeed?

Innovation happens when one is hungry for a change. A contented and complacent person will not see a need to improvise, let alone innovate. One must therefore be hungry to pursue betterment and constantly seeking to challenge themselves further.

Do you think education has a connection to developing enterprising individuals?

Education is only part of the solution to developing enterprising individuals. We need the whole ecosystem including the environment, upbringing and the peer influence to make an impact on the individual's mindset.

Today, our education system is trying to make everyone an entrepreneur. However, we know that not everyone can be one. To be an entrepreneur, you need to have a clear vision of what you want to do. The most effective platform to develop enterprising young individuals is for them to start an interest group or project with their peers. Peer influence may be more effective in motivating the young while mentors are key to indoctrinate them on entrepreneurship.

This year, Singapore Institute of Technology (SIT) and Singapore University of Social Sciences (SUSS) will start to run apprenticeship degree schemes for selected courses. How do you perceive apprenticeship and its future prospects? Are there any challenges and possible solutions to overcome them?

Apprenticeship is a good probation period for the employer and student to assess each other's suitability.

Students get to build skills and at the same time, benefit from finding out whether the work is something they like and do well while they are still learning. Students will also

“ To me, there is no sunset industry. There is only the mindset – how you innovate, how you can be different – that pushes you forward to be the market leader. ”

discover for themselves what the industry is like rather than relying on hear-say.

For employers, they get to find the right talent. Of course, an employer will have to create a purpose driven job to attract and retain the talents.

In terms of when apprenticeship should begin, I will prefer that it starts in the early years of the course when the students are still young and fresh. They can discover early what they want to do and the industry they are interested in. When the students are in the third and fourth year of their studies, they should focus on examinations and area of specialisations.

In one sentence, what is your advice to the next generation of professional accountants in staying relevant and resilient in today's volatile, uncertain and disruptive environment?

The next generation of professional accountants must continue to inspire themselves. They must have a dream and stay focused on their dream.

Insights from Focus Group Discussion with Employers

“ Be passionate about what you do and seek to constantly improve. Accountants should challenge the status quo when need be and think out of the box. Further, while gaining depth in one’s field, it is important to remain agile in learning new areas. ”

Key Insights

- Increasing demand for a business savvy accountant, as opposed to one who is purely compliance-based, impacts the skill sets required.
- Need for education system to move away from theory to having more applied learning, which can be experience gained through longer and more structured internships.
- Attributes such as intellectual curiosity, resilience and adaptability are fast gaining employer’s attention.
- Nurturing an innovative culture through job rotation and cross-functional work groups to gain a deeper appreciation of the whole business model.
- Young professionals should consider gaining more overseas exposure, in particular, working in emerging markets like ASEAN, where growth is immense. This would help them foster a more enterprising and adventurous spirit.

On 23 February 2017, ISCA conducted a focus group discussion with eight employers comprising mainly CFOs in corporations, partners in accounting firms and a headhunter specialising in the finance industry. The participants shared their perspectives on skill sets that the accountancy profession should develop and provided sound advice to young professionals and students on how they can achieve these skills.

Technology has significantly disrupted many businesses and given rise to new business models. Accountants need to make a quantum leap to stay ahead of the curve. The accountancy profession is currently not at the forefront in applying technology in their work, and should consider ways to do so. If not, the profession will be less efficient and effective in delivering value and staying relevant to their stakeholders. The focus group participants highlighted the increasing demand for a business

savvy accountant, as opposed to one who is purely compliance-based. As such, the type of skill sets required will include effective communication, better interpersonal skills, as well as possessing good business acumen. This requires an open and progressive mindset and a desire to be a business partner.

The focus group participants expressed their concerns on a systemic issue in the education system, which was perceived as being very theory-based, with an over-emphasis on grades. There were concerns that curriculums are not keeping pace with the rapid changes happening at present. The implication of this is that graduating students are not work-ready. It usually takes three to four years to refresh the curriculum, and by the time the new curriculum is introduced, the environment would have already changed, and this renders the new curriculum outdated.

Today's Complex Problems Need Multi-Disciplinary Skills to Resolve

The focus group highlighted the importance of appraising students based on effort in achieving an outcome, as opposed to grades alone. As problems are now more complex and would require diverse perspectives and methods to solve them, they highlighted the importance of and the need for multi-disciplinary skills.

Longer and More Structured Internship Benefits Both Employers and Students

Internships or apprenticeships were viewed as a critical component in enabling students to better understand real-world problems and the skills required of them. This also provided employers with the opportunity to find talent and for students to better understand where their passion lies. Given this, there was feedback from the focus group that a ten-week internship would be too short to realise these benefits.

To enable students to learn and apply skills, a more structured internship with a longer duration was recommended. This will enable the students to have a more meaningful internship, during which they can be involved in working on company projects. On the one hand, this provides students with practical industry experience and on the other hand, the employer gets to gain from the work done by students. An employer in the consumer industry shared an example where the student interns readily took to a digital-related project as they were digital natives. Thus, both the company and the student both stood to gain and leverage each other's strengths.

One of the benefits of a structured internship is that students can feedback to the school on what changes should be made to the current curriculum. They can even play a role in influencing what should be taught in Year 3 and Year 4 of the undergraduate programme, which would further make the graduating cohort work ready.



Currently, some universities do provide for a longer internship and allow their students to defer their studies. However, the focus group recognised this may not be favoured due to societal pressures such that students could feel stigmatised simply because they would graduate later than their peers. One suggestion was for all students to experience a longer internship, such that they would all graduate at the same time.

Attributes Beyond Technical Skills Increasingly Important

In the past, the emphasis during interviews was to ascertain skills and competencies. Today, attributes such as intellectual curiosity, resilience and adaptability are fast gaining employer's attention. This would be demonstrated by the interviewee asking the right questions, displaying his/her ability to bounce back after failure through relating their experiences, and being receptive to new challenges. Through these, interviewers are also better able to gauge their risk appetite to push themselves out of their comfort zones, as well as their desire to continuously learn and self-develop. The focus group indicated that they value staff who take the effort to acquire new



skills and knowledge during their personal time.

Developing an Innovative Culture And Adventurous Spirit

To develop an innovative and nimble workforce, it was suggested that job rotation in organisations may be beneficial. In such cases, the wider perspective across the organisation will be useful for the employee to gain a holistic view of the business.

To spark further innovation, some companies also try to engage young professionals in cross-functional work groups so that they get an opportunity to work with colleagues from different departments and solve problems together. The diverse perspectives can result in innovative solutions to help businesses.

The participants also felt that young professionals should consider gaining more overseas exposure, in particular, working in emerging markets like ASEAN, where growth is immense.

This would help them foster a more enterprising and adventurous spirit. They lamented that many young professional were more enthusiastic to work in advanced economies like the United States.

Gain Depth but Remain Agile in Learning New Areas

The participants provided the future generation of accountants with sound advice on being passionate about what they do and to constantly seek improvement. Accountants should challenge the status quo when need be and think out of the box. Further, while gaining depth in one's field, it is important to remain agile in learning new areas.

To navigate amidst uncertainty, there was also feedback that sharing of best practices, mentorship and practical real life experiences can help promote and facilitate professional learning for accountants.

Insights from Focus Group Discussion with Young Professionals

“ **Technology is changing the way businesses work. Accountants need to embrace the spirit of innovation, adopt a continuous learning and enterprising mindset to thrive.** ”

Key Insights

- Participants shared that what kept them awake at night was how technology was resulting in jobs obsolescence.
- Need for multi-disciplinary knowledge in today’s VUCA environment.
- Young professionals recognised the importance of being self-driven and were already taking personal responsibility for shaping their future.
- Important to embrace an enterprising mindset to adapt to changes that have transformed their work.
- An open mind towards cross-department collaboration was necessary given that work today is no longer conducted in silos and work issues are more often than not, multifaceted in nature.



On 15 February 2017, ISCA conducted a focus group discussion with nine young professionals comprising Professional Accountants in Business (PAIB) and Professional Accountants in Practice (PAIP), aged thirty-five and below. The young professionals shared their views on what they thought were the skill sets that the accountancy profession should develop in order to be future-ready, and how an enterprising mindset can be nurtured and cultivated among young accountants.

Leveraging Technology as an Enabler

The participants acknowledged that the accountancy profession is being disrupted by technology and jobs that are administrative, routine and low-skilled such as book keeping, are at risk of being replaced. Participants

shared that what kept them awake at night was how technology was resulting in jobs obsolescence. The volume of work is further shrinking with the increase in the audit exemption threshold (which had prompted accounting firms to seek new revenue sources) and offshoring of routine services to countries with lower costs. These concerns had spurred the young professionals to think more deeply about the value they could offer as accountants.

With cloud-based accounting systems, financial information has become accessible anytime, anywhere. Consequently, accountants are expected to provide up-to-date financial information at a much faster pace than before. Additionally, as clients become more tech-savvy, accountants are also expected to keep pace with them in order to stay relevant. More and more businesses are employing a greater use of data analytics and even predictive analytics for better business decision making. Given this, it is imperative for accountants to be equipped with and leverage the latest technology know-how to increase their productivity.

Multi-Disciplinary Skills and Knowledge Necessary for Today's Workplace

Today's workplace has become less hierarchical and more of a social setting, partly due to the removal of organisation levels made possible by technology. Furthermore, businesses are actively breaking down internal silos as they increasingly recognise the value of teamwork in today's competitive and fast changing environment. Against this backdrop, the young professionals emphasised the importance of soft skills in the workplace. In particular, interpersonal and communication skills were highly valued. Many participants lamented that they found themselves lacking in these essential soft skills when they entered the workplace. The reason is that while in school, they perceived that technical competency was of paramount importance.

Participants also expressed the need for multi-disciplinary knowledge in today's VUCA environment. Such knowledge will help them make better decisions as well as facilitate their role as business advisers. This represents a shift from being a specialist to a generalist, which signals the need to broaden the breadth and depth of one's skills and knowledge.

For example, instead of relying on conventional economics and finance, having knowledge of behavioural finance which seeks to combine behavioral and cognitive psychological theory to explain why people make certain financial decision, will help shape business decisions and improve the daily work of professional accountants.

Other skill sets and knowledge that were cited by the participants as important for accountants included psychology, leadership, negotiation, critical thinking, predictive analytics and understanding of coding.

Young Professionals are Self-Driven to Improve Their Future

Participants preferred on-the-job and classroom training for learning a new skill or enhancing a current one. Some shared that the interactive process of discussion such as classroom discussion of case studies/issues with other people also aided their learning as well. The majority agreed that the effective mode of learning would be largely dependent on an individual's preferred learning style.

The young professionals recognised the importance of being self-driven and were already taking personal responsibility for shaping their future. Being aware of the changing economic landscape, they were ready to learn new skills and would actively look out for personal upgrading opportunities such as certification/accreditation programmes. Interestingly, peer pressure was cited as a motivational factor to upskill. The young professionals were keen to train in the similar areas as their peers.

The participants acknowledged the important role that ISCA plays in training, particularly in providing technical training and updates, among others. After training, they would share what they had learnt with their colleagues which, in turn, helped hone their presentation and communication skills and reinforced what they had learnt. They were hence, better able to apply their new skills and knowledge to their work.

Importance of an Enterprising Mindset

The participants acknowledged that accounting software were increasingly replacing parts of their job, in particular, those that were repetitive and routine-based. Hence, it was important for them to have an enterprising mindset to adapt to changes that have transformed their work. Given this, they highlighted the need for an inquisitive attitude to understand the business in its entirety including operations and processes. An open mind towards cross-department collaboration was also necessary given that work today is no longer conducted in silos and work issues are more often than not, multifaceted in nature. This has brought about a realisation that there needs to be time set aside amidst one's busy schedule to think of innovative ways to execute one's work.

Don't Stop Learning

There was a general consensus that one should never cease learning. The life-long learning attitude is gradually imbued into the young professionals, and participants were self-driven to improve their future. They emphasised the importance of future-generation accountants staying open-minded, being adaptable and taking ownership of their own professional development and growth.

Students Poll Results

Professional Learning

Most important skill sets to stay relevant in future workplace:



SOFT SKILLS

53%

Ranked as most important skill set

61% Indicated current education is "good/very good" at equipping them with soft skills, with **30%** being neutral.

(e.g. Negotiation, cross-cultural communication, service orientation, people management, flexibility, adaptability, resilience, team work)

CONTENT KNOWLEDGE

24%

Ranked as most important skill set

70% Indicated current education is "good/very good" at equipping them with content knowledge, with **25%** being neutral.

(e.g. Technical knowledge, technology skills, computational thinking and cross-disciplinary)

Entrepreneurship



74%

indicated they do not expect to start their own business after graduation.



34%

indicated current education is "good/very good" at cultivating an entrepreneurial spirit in them, with 44% being neutral.

- Survey period: January 2017
- Participating schools: NTU, NUS, SMU, SUSS, SIT, SP, TP, NYP, NP
- Course: School of Accountancy & School of Business
- Number of responses received: 1,168



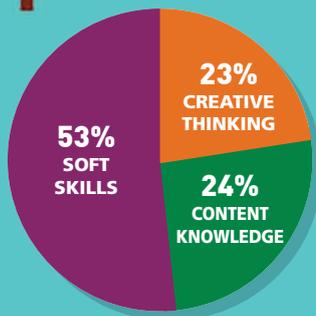
CREATIVE THINKING

23%

Ranked as most important skill set

42% Indicated current education is "good/very good" at equipping them with creative thinking, with **41%** being neutral.

(e.g. Complex problem solving, critical thinking, design thinking, cognitive flexibility)



Preferred Mode of Learning:

70% indicated



Blended learning



Flipped classroom learning

as preferred mode of learning at school.

Other options available for selection in the poll included "Creative learning", "Online learning" and "Others".

49% indicated



On-the-job training

as most preferred mode to acquire new skills after graduation.

Other options available for selection in the poll included "Blended learning", "Flipped classroom learning", "Online learning", "Creative learning" and "Others".

Top 4 Factors to Motivate Students to be Lifelong Learners

22% 

Monetary incentive

21% 

Time

18% 

Self-motivation

18% 

Employer support

Other factors available for selection in the poll included "Government support", "Family support", and "Peer pressure".

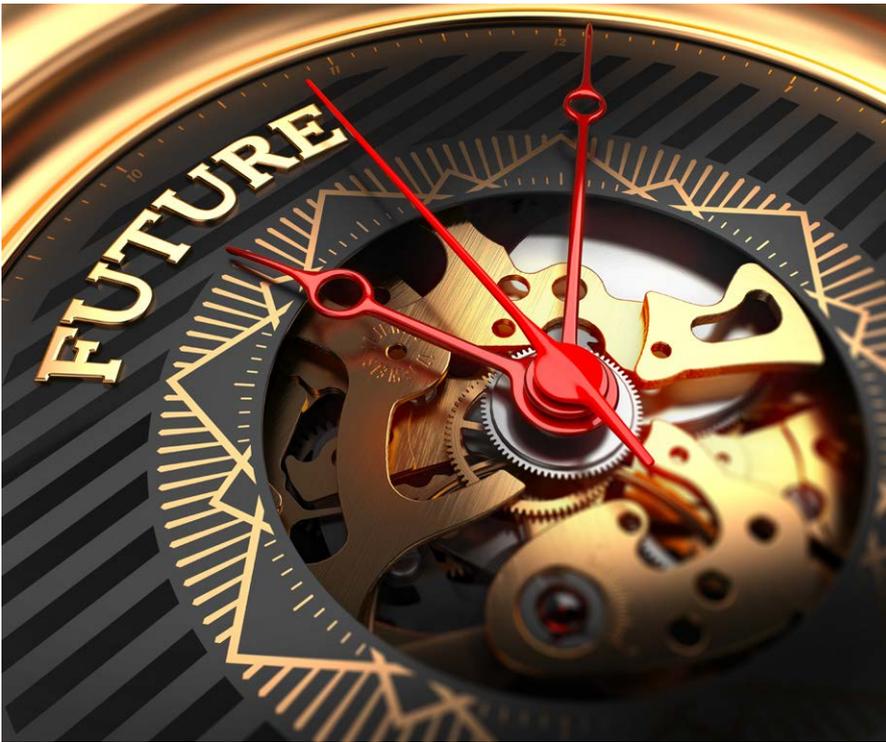
Apprenticeship



79% indicated their willingness to undergo apprenticeship.

(Apprenticeship is where you take on jobs, and study for diploma / degrees concurrently)

Insights from Educator, SMU's Views



Forces such as globalisation and digitalisation have led to profound changes in the business environment. Apart from technical accounting knowledge, accountants now also need to equip themselves with a range of other skills that will allow them to thrive in the economy of tomorrow. In this respect, tertiary education has a big role to play in preparing students for their first jobs.

At Singapore Management University (SMU), we ensure that our Bachelor of Accountancy programme provides a holistic education emphasising real-world readiness. Centred on a strong accounting core, the curriculum is broad-based, covering business, technology, entrepreneurship, leadership skills, communications, ethics and social responsibility. The broad-based curriculum inculcates

attributes such as analytical and creative abilities, a broad perspective to think across disciplines and geographical or political boundaries, and a confident mastery of technology.

Another key component of our broad-based education involves compulsory internship, which ensures that our students graduate with hands-on experience and are ready for the corporate world. Students are opting for multiple internships as they view it as valuable platforms to apply their knowledge, understand various industries and network with future employers. To prepare students for a globalised work environment, SMU also provides opportunities for students to expand their horizons and experience different learning environments through its overseas exchange programme, internships, study missions and community service projects. Global exposure is important for students as the world becomes increasingly globalised and connected by technology, which means they are likely to be working in teams with colleagues from different countries.

To equip accounting students with the skills and tools to thrive in an increasingly digitalised world, SMU recently launched the Data Analytics track, which seeks to provide data analytics knowledge that enhances decision-making and problem solving in accounting practices. This data analytics track is timely, as accountancy professional bodies have highlighted the importance of mastery of data analytics skills among accounting graduates.

As students are digital natives, SMU has recognised the importance of embracing technology-enabled and

blended learning and has increased its efforts to integrate technology as part of its pedagogy. One example of technology-enabled learning is the use of games to facilitate learning. Two faculty members from SMU developed a mobile-gaming app (Accounting Challenge) to learn accounting on the go, anywhere at any time. The app received the American Accounting Association (AAA) 2015 Innovation in Accounting Education Award. It was the first time in the history of the AAA that the award had been presented to professors of a university outside of America.

SMU-X

The challenge for SMU is to continuously transform the education that it provides, so as to prepare students to be 'future-ready'. It is paramount that universities identify and equip their students with relevant skills for the future by embracing innovation in their teaching pedagogies and making learning more relevant. With that in mind, SMU pioneered an innovative pedagogy called SMU-X in 2015.

The SMU-X pedagogy comprises four principles:

- 1) Project-based experiential learning through tackling real world problems and issues;
- 2) Inter-disciplinary learning;
- 3) Active mentoring by faculty and industry partner; and
- 4) Tripartite learning loop for the faculty, student and industry partner.

Through such learning approach, students are engaged in acquiring knowledge and skills through an extended inquiry process structured among complex, authentic questions and carefully designed tasks.

The SMU-X initiative is a paradigm shift, which focuses on learning as opposed to teaching, and also

advocates a mindset shift to get the university to collaborate both internally and externally with its industry partners. The skills which this programme hopes to develop in students include:

- 1) The ability to see connections and differences across disciplines and to integrate knowledge to explore an issue or meet a challenge;
- 2) The adaptability to new or unfamiliar environments and to exercise leadership;
- 3) Creativity and critical thinking when solving problems;
- 4) Sound decision making while managing complex situations; and
- 5) The ability to work collaboratively and productively as a team.

These skills are consistent with major skills highlighted in both the Future Work Skills 2020⁷ report and the SkillsFuture initiative.

To date, 33 SMU-X courses have been designed and conducted in collaboration with 170 industry partners that span across various industries. It is estimated that these courses will benefit about 2,000 SMU students yearly.

Faculty members will certainly need to adapt to these changes in order to develop students who are well equipped to meet the demands of the uncertain environment of the future. In particular, it is important for the faculty to develop a collaborative mindset and to continually engage with industry partners in order to keep up with and anticipate future developments or disruptions in the industry. This would go a long way in bridging the gap between academia and practice, and would allow the faculty to refresh their teaching through having their fingers on the pulse of the latest trends and developments in the industry.

Building an Enterprising Spirit

In its recent report, the CFE identified the strengthening of enterprise capabilities to innovate and scale up as one of the key strategies for Singapore to stay ahead in the midst of a challenging global climate. Tertiary education can play a leading role in this area by nurturing and developing an enterprising spirit within students.

In SMU, all students are required to complete at least one entrepreneurship-related elective that exposes them to key elements of entrepreneurship. These courses draw on a diverse range of disciplines - including business, sociology, history, and psychology - and allow students to gain an appreciation for the social dimensions and the psychological aspects of being an entrepreneur. In addition, the Institute of Innovation & Entrepreneurship at SMU leverages the unique ecosystem that the university environment represents, to foster innovation and entrepreneurship among students. It does so through events such as competitions, workshops and training, networking sessions, study missions, internships and other activities.

The next generation of accountants face challenging but exciting times ahead. Even in the midst of volatility and disruption, opportunities will continue to present themselves. To seize these opportunities, accountants must adopt the mindset of being lifelong learners, always striving to keep abreast of industry trends and developments, and acquiring the skills needed in the economy of the future.

⁷Future Work Skills 2020 Report by Institute for the Future for the University of Phoenix Research Institute (2011)

Interviews with United Kingdom's Thought Leaders

Interview with Dr Rob Jones, Senior Lecturer in Accounting and Finance, Newcastle University Business School

“ **Helping clients to solve problems requires a professional adviser to tailor the solution to the precise circumstances of the client, rather than suggesting a one-size-fits-all approach. Professional learning needs to encourage the development of the highest level skills.** ”

Key Insights

- In my view, part of professional training should involve a student making linkages between the professional examinations and practice work in order to develop their professional competence. I am concerned that this does not happen enough.
- Professionals need to develop higher level skills like analysis, reasoning and problem solving. This requires a capability and a willingness to think through issues from the fundamentals, rather than relying on a stock answer or procedure.
- From the point of view of an individual accountant, professional learning is important but it is just one of a number of competing demands on their time. Many working professionals may view it as an imposition rather than a benefit.
- From the point of view of the accountancy profession, professional learning is vital if chartered accountants are to maintain and enhance their contribution and reputation as professionals.
- The combination of studying in class, followed up with professional placements where the student applies their learning to practice, offers a very good environment for high quality learning and personal development.
- An accountant needs to have a strong positive view about their role and the contribution it makes. They need to feel comfortable about being (and wanting to be) an accountant, that is they are in the profession for the right reasons. An accountant also needs to immerse themselves in what they do. They need to be intellectually curious and they need to look to developing themselves by accumulating a range of experiences over time.

You trained as a Chartered Accountant with Coopers and Lybrand (now PwC) and joined the Newcastle University in 2001. Can you describe how professional learning has changed with times?

I think that there have been a number of significant changes.

While the core disciplines are similar, the content of the core disciplines has changed and in some cases, significantly. There are more auditing and financial reporting standards to learn, tax has become more complex and the regulatory requirements have grown significantly in some areas, for example, money-laundering.

The use of IT has grown enormously over this time. This has implications for how and when students learn and for the need to constantly update their knowledge, as new developments emerge.

There is some evidence that time pressure on students has increased. They are expected to learn in a very structured and efficient manner. This crowds out the time for reflection and analysis. In my view, part of professional training should involve a student making linkages between the professional examinations and practice work in order to develop their professional competence. I am concerned that this does not happen enough.

The world we live in is best describe as volatile, uncertain, complex and ambiguous, and disruption such as technology is picking up pace. From your perspective, what are the implications of these to professional learning?

I think these changes have made it even more important for professionals to develop higher level skills like analysis, reasoning and problem solving. This requires a capability and a willingness to think through issues from the fundamentals, rather than relying on a stock answer or procedure.

Helping clients to solve problems requires a professional adviser to tailor the solution to the precise circumstances of the client, rather than suggesting a one-size-fits-all approach. Professional learning needs to encourage the development of the higher level skills.

Do you think that the professional learning has adapted itself to suit the needs of today's working professionals, like accountants? Please elaborate.

This is a very interesting question and I think there are two answers depending on how you look at it.

From the point of view of an individual accountant, professional learning is important but it is just one of a number of competing demands on their time. Therefore, an individual accountant is likely to want the professional learning process to be as efficient and painless as possible. While there have been some innovations in delivery, for example e-learning and blended learning, which have helped to make professional learning more efficient, overall, I still think it is challenging. Many working professionals may view it as an imposition rather than a benefit.

However, from the point of view of the accountancy profession, professional learning is vital if chartered accountants are to maintain and enhance their contribution and reputation as professionals. Earlier on, I emphasised the need for chartered accountants to develop higher level skills of analysis, reasoning and problem solving. This ability, allied to a set of strong technical skills, should enable chartered accountants to provide high quality advice which will be valued by their clients. From this perspective, professional learning does need to challenge accountants to ensure these higher level skills are developed.



The “Newcastle Flying Start” programme is a collaboration between Newcastle University, PwC and ICAEW. The programme comprises study towards a bachelor degree in business accounting and finance, paid work placements at PwC and accelerated progress towards ICAEW Chartered Accountant qualification. You joined Newcastle University in 2001 to set up this programme. At that time, what led or motivated the tripartite collaboration between business, a tertiary body and a professional accountancy body?

There was a desire on the part of all three partners to offer a new and innovative approach to professional training. The initial proposal offered benefits to the employer, the professional body and the University in a way that also provided a very attractive programme for students.

What makes the programme successful? In other words, how has the programme helped in developing work ready accountants that businesses need?

The programme is successful because the three partners work together to provide an environment where the students prosper. There is a strong ethos that the programme is a collective endeavour for excellence. A way of working has been established whereby the partners balance their individual needs with the needs of the other two partners.

The metrics gathered suggest that graduates from the programme perform well in the workplace, progressing quickly once they are fully qualified.

Accountancy is largely thought of as a vocational discipline. How important is apprenticeship versus internship for the accountancy profession?

Both apprenticeship and internship have their place. However, the development of high-level technical and intellectual skills does not happen by chance. It requires students to participate in a challenging and well-thought-out academic programme. I would argue that to develop these skills, students need to spend a significant amount of time immersed in their studies in the university environment, rather than trying to fit in learning around other responsibilities in the workplace.

The combination of studying in class, followed up with professional placements where the student applies their learning to practice, offers a very good environment for high quality learning and personal development. In this case, students apply their learning because they see how the classroom material applies to workplace situations, that is how does theory work out in practice.

We are often focused on the new skills that we need to acquire to be future-ready for the new economy. However, it is also critical to look into the current skills we have yet to be equipped with and whether there is a need for greater mastery of these skills. What are the current gaps in terms of skills and knowledge that the accountancy profession needs to quickly build?

Technical skills remain as important as ever. Good understanding of IT and systems is becoming ever more important. Beyond that, high-level skills of analysis, reasoning and problem solving are crucial to the accountancy profession's quality of work.

What do you think are the skills that young accountants should develop and master which would place them well for the future?

The development of personal and professional skills is vital for a young accountant. They need to be able to fit into the professional work environment and quickly establish professional credibility with their

colleagues and clients. This involves a good understanding of the appropriate behaviours to adopt in particular circumstances and a willingness to demonstrate these behaviours as and when required. Much of this is about how they interact with colleagues and clients on a day-to-day basis.

Beyond skills, having the right attributes is also just as important. What are the desired attributes that accountants should possess to be future-ready?

It is sometimes difficult to differentiate between skills and attributes, as it is sometimes a question of definition. However, I think the following two points are key. Number one, an accountant needs to have a strong positive view about their role and the contribution it makes. They need to feel comfortable about being (and wanting to be) an accountant, that is they are in the profession for the right reasons. Number two, an accountant needs to immerse themselves in what they do. They need to be intellectually curious and they need to look to developing themselves by accumulating a range of experiences over time.

In one sentence, what is your advice to the next generation of professional accountants in staying relevant and resilient in today's volatile, uncertain and disruptive environment?

You are part of a well-respected profession; work together with your colleagues to ensure that you are making a positive contribution in the workplace.

Interview with Mr Stuart Pedley-Smith, Head of Learning, Kaplan UK



“ I would like to see a move towards critical thinking and creativity. If we start to build these skills now, they can help to provide the building blocks for accountants of the future so they are able to both survive and prosper in what will almost certainly become a more volatile, uncertain and disruptive environment. ”

Key Insights

- It is difficult to decide the level of responsibility the professional accountancy body has for employability compared with the employer and individual. These three stakeholders almost certainly need to work together. However, in practice, the stakeholder best placed and able to consistently support employability skills is the professional accountancy body. This is because, some companies will provide excellent on-the-job training, while others may not.
- Rather than just a single examination, perhaps we should be thinking more creatively, such as an online business simulation requiring groups to collaborate and negotiate. This would provide an exciting new examination based environment. Technology enables us to observe online behaviours in a way not possible in the past, and if we can observe, we can assess.
- Professional learning (education) has to offer greater choice and move towards a more personalised learning experience. The debate is no longer about the value of classroom versus online learning but rather, how the professional would choose to learn.
- Young accountants should, in particular, work on their communication, business writing and persuasion skills. When students reach the final year of their study which is the point at which these skills are most likely tested, they are found to be lacking. In addition, employers are often disappointed with the level of business writing skills in the work place.

You have blogged quite extensively on education. What do you think about the accountancy education curriculum in schools today?

I am far from an expert on accountancy education in schools, but from what I have seen, there seems to be a good mix between computation/calculation and understanding. It is essential that the basics of recording transactions

is both taught and tested at an early stage.

Double entry bookkeeping is still very important. Many complex problems that the student will almost certainly encounter as they progress in their career, can be solved if they have a sound understanding of how the numbers behave both in the accounting records and financial statements.

Do you see any gaps in the professional education and training of accountants? What are some of the major gaps and how can they be filled?

Professional accountancy bodies try very hard to ensure their syllabi is current and relevant, and the process of surveying members and keeping in touch with employers to achieve this works well. What is difficult is the speed of change and dealing with such a broad stakeholder base.

As accountants work in so many different domains, it seems inevitable that there will be areas not covered. ICAEW have for example, introduced a whole raft of specialist qualifications e.g. Insolvency, Corporate Finance together with additional modules for financial reporting, Business Planning: Banking and Business Planning: Insurance in order to try and resolve this problem. But what about public sector finance, which is a major area in the UK? This subject is currently not covered, but professional accountancy bodies cannot be expected to include every aspect of finance.

It might help if we split the technical aspects of qualification from other skills. [I will pick up on the other skills later below.] Technical gaps do and will continue to exist to a degree, because of the complexity of areas in which accountants find themselves. That said, I think ICAEW is following a sensible path in trying to keep these to a minimum, by having option papers within the examination structure and additional qualifications outside.

There are various pathways to join the accountancy profession today. Would you consider the current pathway programmes as being capable of developing accountants who are fit for purpose for present day jobs?

I am mindful that your question states “capable of developing” which implies that the examinations need only set the student along the right path.

What is difficult is deciding the level of responsibility the professional accountancy body has for employability compared with the employer and individual. These three stakeholders almost certainly need to work together. However, in practice the stakeholder best placed and able to consistently support employability skills is the professional accountancy body. This is because some companies will provide excellent on-the-job training, while others may not.

A recent World Economic Forum (WEF) report listed ten skills chief human resources officers from leading global companies considered would be important for 2020. This almost sounds futuristic, but is now only three years away! Encouragingly, complex problem solving was number one, and it could be argued that this is rigorously tested in the existing examination structure. Critical thinking was number two, followed by creativity, people management and coordinating with others. Emotional intelligence was number six.

Although the report is not specifically about accounting and finance, it does provide us with a useful benchmark, identifying the skills HR professionals believe will help make employees fit for purpose in the future.

Some of the skills identified above will undoubtedly be mentioned in the academic guidance underpinning existing examination frameworks, but many will not be that recognisable to students or tutors. Case studies offer an excellent means of bringing these skills into the open, and it would be nice to see them being used far more extensively and creatively in the future. This, I believe, would help better align accountants with the world of work, especially at the management level.

Do you think the current pathway programmes sufficiently prepare accountants to undertake the new opportunities in the new economy? Why or why not?

If by the term “new economy”, we are talking about how the advances in technologies have resulted in a move towards a larger service sector and knowledge driven economy, then I am not sure accountants are that well prepared.

Accounting developed as a means of recording transactions in order to both control and measure trade. Additionally, it works well for manufacturing. But in the new economy of Google and Facebook, accounting in its traditional sense is far from ideal. As a result, the opportunities for accountants might be less. It could be argued that accounting is even more paramount, in a world that flouts conventional logic. For example, a technology company that is making losses, but worth billions with a sky-high stock price.

The current pathways provide students with a progressive education based on a number of core disciplines, that is accounting (financial & management), taxation, audit/compliance, financial management, and business strategy. Ethics is a new and welcomed addition, and the different bodies have introduced a variety of ways of bringing this into the mix, as well as the broader skill sets outlined above, such as critical thinking and creativity.

There are of course some additional skills emerging from the new economy that although recognised, should perhaps play a greater part. I am thinking of skills such as coding, big data and analytical insights, together with a much more conventional topic, such as how to measure value in the knowledge economy. The level of detail is open to debate and I am not suggesting we should teach

accountants coding, but they should have an understanding of it. In the future, of course, they may be taught this at school.

What changes do you think is needed in the accountancy curriculum or on-the-job training to adequately prepare young accountants for the work place?

In addition to the gaps mentioned earlier, communication, people skills, negotiation and leadership are just as important. I feel these skills could be given more prominence. However, I do not think these should be added into the syllabus as subjects.

We should be exploring other forms of assessment, to give students the opportunity to demonstrate these skills and force educators to teach them. Rather than just a single examination, perhaps we should be thinking more creatively, such as an online business simulation requiring groups to collaborate and negotiate. This would provide an exciting new examination based environment. Technology enables us to observe online behaviour in a way not possible in the past. If we can observe, we can assess.

The world we live in is best describe as volatile, uncertain, complex and ambiguous, and disruption such as technology is picking up pace. Can you describe how professional learning has changed with times? From your perspective, what are the implications of these to professional learning?

In summary, professional learning (education) has to offer greater choice and move towards a more personalised learning experience. The debate is no longer about the value of classroom versus online learning but rather, how the professional would choose to learn.

This shift places the professional in the driving seat as to how and when they learn. It can be scheduled, with fixed structures and predetermined deadlines or more flexible, offering choice and convenience.

We are often focused on the new skills that we need to acquire to be future-ready for the new economy. However, it is also critical to look into the current skills we have yet to be equipped with and whether there is a need for greater mastery of these skills. What are the current gaps in terms of skills and knowledge that the accountancy profession needs to quickly build?

I would like to see a move towards critical thinking and creativity. If we start to build these skills now, they can help to provide the building blocks for accountants of the future so they are able to both survive and prosper in what will almost certainly become a more volatile, uncertain and disruptive environment.

What do you think are the skills that young accountants should develop and master which would place them well for the future?

Young accountants should, in particular, work on their communication, business writing and persuasion skills. At the moment, when students reach the final year of their study which is the point at which these skills are most likely tested, they are found to be lacking. In addition, employers are often disappointed with the level of business writing skills in the work place.

In one sentence, what is your advice to the next generation of professional accountants in staying relevant and resilient in today's volatile, uncertain and disruptive environment?

Always remain curious and sceptical, read widely and choose to express your views only when you have thought them through, checked your facts in detail and tried to prove yourself wrong.



Interview with Mr Paul Bulpitt, Co-founder and Director of Accountancy, The Wow Company UK Ltd



“ An enterprising mindset has not traditionally been prioritised by accountants, accounting firms or accounting bodies. An enterprising mindset prevails out of necessity and accountants will find that they need to be enterprising to remain relevant. ”

Key Insights

- The rigorous training process that accountants have to go through makes them ideal candidates to advise business. The challenge is finding how to best deploy the robust analytical skills that accountants have, to the best use for small business owners.
- As machines automate more of what an accountant has traditionally done, what is left are skills that only a human has: the interpersonal skills such as empathy and the ability to communicate complex issues in simple terms; resilience to handle the ever-changing world; and high energy.
- Traditionally, the emphasis for accountants' training has been on the technical skills. While possessing technical skills are as valuable now as ever, these skills are a necessity. The ability of an accountant to continue to deploy these skills, amidst a fast-changing environment, through their interpersonal skills and enterprising approach is the key to sustaining the accountancy profession.

You co-founded The Wow Company UK Ltd which is marketed as a firm of enterprising and fun accountants. This is a far cry from the image of accountants that most people have. What motivated you to start Wow?

I had spent many years working in and with accounting firms and saw that business owners were not getting the support we believed they should have. That was my main motivation for starting Wow.

I wanted to build a firm of accountants and advisers that truly cared for clients' future and spoke to them in plain English, with a world-class level of customer service.

Many say accountants make the best advisers to businesses. What are your views on this? What is the advantage that accountants have that make them good business advisers?

The rigorous training process that accountants have to go through makes them ideal candidates to advise business. The challenge is finding how to best deploy the robust analytical skills that accountants have, to the best use for small business owners.

There is a range of ways that analytical skills can be deployed to help small business owners, such as risk management, data verification/validation, software selection, forecasting, break-even and cashflow analysis.

Do you think accountants are enterprising by nature? Oxford dictionary defines "enterprising" as having or showing initiative and resourcefulness.

There are many different types of accountants. At Wow, we definitely have a team of 'enterprising' accountants. So, it is definitely possible for accountants to be enterprising. Of course, not all are though.

From my experience, an 'enterprising' mindset is demonstrated when an accountant is able to put themselves in the shoes of the small business owner and see the world from their perspective. This would then enable the accountant to better advise their client, and help develop services that clients want and need.

How important is it for the accountancy profession to have an enterprising mindset / approach to work in today's world where we live in a volatile, uncertain, complex and ambiguous environment? Please elaborate.

The main skills accountants need in a fast-paced, ever-changing world are solid interpersonal skills, resilience and high levels of energy!

As machines automate more of what an accountant has traditionally done, what

is left are skills that only a human has: the interpersonal skills such as empathy and the ability to communicate complex issues in simple terms; resilience to handle the ever-changing world; and high energy. The high energy is probably optional but certainly helpful. Accountants with high energy are able to embrace the changes facing us and make the most of it.

What are the factors that inhibit accountants from displaying enterprising mindset at work? What can be done about it?

An enterprising mindset has not traditionally been prioritised by accountants, accounting firms or accounting bodies. An enterprising mindset prevails out of necessity and accountants will find that they need to be enterprising to remain relevant.

Traditionally, the emphasis for accountants' training has been on the technical skills. While possessing technical skills are as valuable now as ever, these skills are a necessity. The ability of an accountant to continue to deploy these skills, amidst a fast-changing environment, through their interpersonal skills and enterprising approach is the key to sustaining the accountancy profession.

In one sentence, what is your advice to the next generation of professional accountants in staying relevant and resilient in today's volatile, uncertain and disruptive environment?

Act with energy and conviction, do not be dampened by what has not worked for previous generations; and to find their passion in helping people.



Conclusion

The next generation of accountants face challenging but exciting times ahead. Even in the midst of high volatility and great disruptions, new opportunities will continue to present themselves. To seize them, accountants must be nimble and adopt the mindset of a lifelong learner, always continually keeping abreast of changes and developments that are reshaping our world and redefining our jobs and work. The need to acquire new skills and knowledge that are needed in the new economy is ever more pressing.

The current national conversation on building a future-ready workforce requires a more systematic change, starting from education. In the context of the accountancy profession, we call this professional learning. This report explored how professional learning should evolve and change in the face of current disruptions so that learning experiences are delivered effectively and efficiently. The desired outcome is for accountants to be equipped with the skills and knowledge that makes them relevant in the new economy.

In today's VUCA environment, enterprising individuals are likely to have an advantage over others as they are able to quickly identify and seize opportunities. What this implies for the accountancy profession is that technical competence which was once a prized asset of accountants, is no longer sufficient. Businesses today need and want accountants who are business savvy and able to create value for the business through their financial skills. Those capable of delivering this are likely to become the best assets for businesses and employers because they are able to provide the insights that will lead to more optimal and effective business decisions.

The future of the accountancy profession is now in our hands to

shape and redefine. This calls for the different stakeholders including the government, ISCA, the national accountancy body and foreign professional accountancy bodies like ICAEW, the accounting firms and employers, educators, students and even parents, to work in collaboration to build a better future for the Singapore accountancy profession.

This report suggests several key takeaways for various stakeholders to consider in shaping the future of professional learning and entrepreneurship for the Singapore accountancy profession.



Employers

- Can play an important role in fostering lifelong learning in their organisations.
- May offer more flexible work arrangements and provide a platform for sharing best practices and practical real life experiences, for example, through mentorship and apprenticeship.
- Nurture a collaborative and innovative culture through job rotation and cross-functional work groups to enable employees to gain a deeper appreciation of the whole business model.
- Consider alignment of incentives to promote innovation and encourage cross-fertilisation of ideas across departments in the organisation.
- Consider involving student interns to work on assignments. This leads to more meaningful internship experiences for both the employers and students.

Professional Accountants and Young Professionals

- Be business savvy and aspire to create value for the business through their financial skills.
- Having the right attributes such as intellectual curiosity, resilience, professional scepticism, ethical awareness and good emotional intelligence, for example empathy, to address challenges in the fast-changing environment is more important than ever.
- Be open-minded towards cross-department collaboration, rather than working as individuals or in silos, as work issues are increasingly complex and multi-faceted.
- Challenge oneself by going out of one's comfort zone and consider pursuing overseas exposure such as working in emerging markets like ASEAN, where growth is immense and opportunities are plentiful. This would also help one foster a more enterprising and adventurous spirit.

- Take time to reflect on one's success and failure to continuously learn from the experience.

Educators

- Tertiary education has a big role in preparing students for their first jobs. Education should be holistic and broad based with emphasis on real world readiness.
- Help to provide opportunities for students to expand their horizons and experience different learning environments through overseas exchange programmes, internships, study missions and even community service projects.
- Recognise the importance of embracing technology-enabled learning and increase efforts to integrate technology into the pedagogy of accounting.

Students

- Embrace lifelong learning by pursuing the joy of learning and learning how to continue to learn.
- View apprenticeship as a good probation period to build skills and assess if the work in the chosen industry is something they like.
- Be daring to break through new frontiers and not be fearful of failure.

Parents

- Academic excellence is not the only route to life's success.
- Have a positive mindset towards apprenticeship as it is useful in helping the young to gain skills and knowledge to succeed in their chosen industry.
- Encourage the young to be willing to adapt and take some risks.



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Interviewees

Name	Designation	Company Name
Chaly Mah	Chairman	Singapore Accountancy Commission
Chng Sok Hui	Chief Financial Officer	DBS Group
Karen Loon	Banking & Capital Markets Leader and Territory Diversity Leader	PwC Singapore
Paul Bulpitt	Co-founder and Director of Accountancy	The Wow Company UK Ltd
Rob Jones	Senior Lecturer in Accounting and Finance	Newcastle University Business School
Stuart Pedley-Smith	Head of Learning	Kaplan UK
Susan Chong	Chief Executive Officer	Greenpac (S) Pte Ltd

Focus Group Participants (Employers)

Name	Designation	Company Name
Charles Ng	Finance Director	Club 21 Pte Ltd
Choo Chek Siew	Group Chief Financial Officer	ComfortDelGro Corporation Limited
Dennis Chia	Chief Financial Officer	Starhub
Henry Tan	Managing Director	Nexia TS
Kelvin Tan	Audit Committee Chairperson	Transcorp Holdings Ltd, Viking Offshore and Marine Limited, Shanghai Turbo Enterprises, and IREIT Global Group Pte Ltd
Ong Wee Gee	Vice President, Finance	Equinix Asia Pacific
Seah Gek Choo	Talent Partner	Deloitte & Touche LLP
Wu Jiat Hui	Consultant, Financial Services Practice	Egon Zehnder, Singapore

Focus Group Participants (Young Professionals)

Name	Designation	Company Name
Audrey Goh	Vice President, Group Finance (GFP&A)	DBS Bank
Celine Fook	Senior Associate - Global Mobility Services	PwC Singapore
Chai Tse Whei	Partner	Chai Son Chan & Co
Chua Soo Rui	Audit Partner	CA Trust PAC
Goh Hong Chuan	Manager	Mazars LLP
Jaypee Lolong Bautista	Audit Senior Manager	Helmi Talib & Co
Lee Cai Ling	Accountant	Tenzing Capital Asia Pte Ltd
Neo Chun How Alton	Senior Manager	Ardent
Phua Kuan Hua	Tax Associate	Deloitte & Touche LLP
Zhu Wanning	Tax Consultant – Tax Financial Services	PwC Singapore

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ABOUT THE INSTITUTE OF SINGAPORE CHARTERED ACCOUNTANTS

The Institute of Singapore Chartered Accountants (ISCA) is the national accountancy body of Singapore. ISCA's vision is to be a globally recognised professional accountancy body, bringing value to our members, the profession and wider community. There are over 32,000 ISCA members making their stride in businesses across industries in Singapore and around the world.

Established in 1963, ISCA is an advocate of the interests of the profession. Possessing a Global Mindset, with Asian Insights, ISCA leverages its regional expertise, knowledge, and networks with diverse stakeholders to contribute towards Singapore's transformation into a global accountancy hub.

ISCA is the Administrator of the Singapore CA Qualification and the Designated Entity to confer the Chartered Accountant of Singapore - CA (Singapore) - designation.

ISCA is an Associate of Chartered Accountants Worldwide (CAW). CAW brings together 11 chartered accountancy bodies connecting and representing the interests of over 1.6 million members and students globally.

For more information, visit www.isca.org.sg.

ABOUT THE INSTITUTE OF CHARTERED ACCOUNTANTS IN ENGLAND AND WALES

Founded in the UK in 1880, ICAEW is a world leading professional membership organisation headquartered in London with offices in Brussels, Cypress, Dubai, Beijing, Hong Kong, Kuala Lumpur, Singapore, Vietnam and Indonesia.

We connect with over 147,000 chartered accountants worldwide, providing this community of professionals with the power to build and sustain strong economies. By training, developing and supporting accountants throughout their career, we ensure that they have the expertise and values to meet the needs of tomorrow's businesses.

Our profession is right at the heart of the decisions that will define the future, and we contribute by sharing our knowledge, insight and capabilities with others. That way, we can be sure we are building robust, accountable and fair economies across the globe.

Globally, ICAEW Chartered Accountants are recognised as leaders in accountancy, finance and business. 97 of the world's 100 global leading brands employ ICAEW Chartered Accountants and 82% of FTSE 100 companies have an ICAEW Chartered Accountant on the Board.

ICAEW, a founder member of Chartered Accountants Worldwide (CAW), which brings together 11 chartered accountancy bodies, representing over 1.6m members and students globally.

**www.charteredaccountantsworldwide.com
www.globalaccountingalliance.com**

ABOUT SMU SCHOOL OF ACCOUNTANCY

Established in 2001, the School of Accountancy (SoA) is the second largest school in the Singapore Management University.

SoA began with a cohort of 90 Bachelor of Accountancy (BAcc) students and eight faculty. The BAcc programme became the first American-styled broad-based accountancy programme in Singapore, with a curriculum that met the accreditation requirements of the major accounting regulatory bodies. Currently, SoA has a faculty of close to 50 and offers three distinctive programmes; the Bachelor of Accountancy, Master of Professional Accounting, and Master of Science in CFO Leadership. These three programmes are designed in line with the development of Singapore as a leading global hub for accounting services and professionals for the Asia Pacific.

SoA aims to develop future global citizens who are competent accounting professionals and responsible business leaders, through pertinent knowledge creation, holistic education programmes, and collaborative engagements with the business community. The SoA faculty comes with strong credentials in research, teaching and industry practice and the SoA community shares a sense of professionalism, personal integrity, social responsibility, as well as an aspiration for exemplary leadership in the field of accounting. SoA's programmes are accredited by various reputable professional bodies and are internationally recognised.

For more information, visit www.smu.edu.sg.

Our Future Together

Industry Perspectives:

Future of Professional Learning and Entrepreneurship

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