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FINTECH: STATE OF PLAY
OPPORTUNITIES FOR FINANCE PROFESSIONALS

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We're a thriving global community of 233,000 members and 536,000 future members based in 178 countries and regions, who work across a wide range of sectors and industries. We uphold the highest professional and ethical values.

We offer everyone everywhere the opportunity to experience a rewarding career in accountancy, finance and management. Our qualifications and learning opportunities develop strategic business leaders, forward-thinking professionals with the financial, business and digital expertise essential for the creation of sustainable organisations and flourishing societies.

Since 1904, being a force for public good has been embedded in [our purpose](#). In December 2020, we made commitments to the [UN Sustainable Development Goals](#) which we are measuring and will report on in our annual integrated report.

We believe that accountancy is a cornerstone profession of society and is vital helping economies, organisations and individuals to grow and prosper. It does this by creating robust trusted financial and business management, combating corruption, ensuring organisations are managed ethically, driving sustainability, and providing rewarding career opportunities.

And through our cutting-edge research, we lead the profession by answering today's questions and preparing for the future. We're a not-for-profit organisation.

Find out more at: www.accaglobal.com

About CA ANZ

Chartered Accountants Australia and New Zealand is a professional body, comprised of more than 131,000 diverse, talented and financially astute members, who use their skills every day to make a difference for businesses the world over.

Members are known for their professional integrity, principled judgement, financial discipline and a forward-looking approach to business which contributes to the prosperity of our nations.

We focus on the education and lifelong learning of our members, and engage in advocacy and thought leadership in areas of public interest that impact the economy and domestic and international markets.

We are a member of the International Federation of Accountants, and are connected globally through the 800,000-strong Global Accounting Alliance and Chartered Accountants Worldwide, which brings together leading institutes in Australia, England and Wales, Ireland, New Zealand, Scotland and South Africa to support and promote over 320,000 Chartered Accountants in more than 180 countries. We also have a strategic alliance with the Association of Chartered Certified Accountants. CA Catalyst is our strategic programme to help CAs build capabilities, explore new markets, and provide greater value for themselves, their clients and communities.

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FINTECH: STATE OF PLAY OPPORTUNITIES FOR FINANCE PROFESSIONALS

This report provides a practical overview for accountancy and finance professionals on the exciting career opportunities open to them in Fintech. All the Individuals profiled within the report are members of ACCA or CA ANZ.

Foreword



Helen Brand OBE
chief executive, ACCA

Without doubt, the role of technology remains the most significant influence on the accounting profession – now but even more so into the future as we enter the ‘web 3.0’ and artificial intelligence age.

Professional accountants are known and valued for the broad portfolio of skills and expertise they hold. Such skills place them ideally to create new opportunities for themselves and their clients in this digital world.

This includes the rapidly changing and growing world of fintech where both the delivery and consumption of services is being rapidly adopted and increasingly interwoven into our personal and professional lives.

Fintech is a sector that is thriving with diverse components: for example, online or ‘neobanks’, payment systems, payment gateways, application programming interfaces (APIs), investment banking back-end infrastructure, ‘insurtech’, ‘wealthtech’ and ‘regtech’. And that’s before considering frontier areas such as central bank digital currencies, cryptocurrencies, and non-fungible tokens.

Our report recommends that accounting and finance professionals build awareness of the products and services within the fintech landscape globally and the competitive dynamics that will shape it.

And many are doing so, with about half of 5,723 respondents to a global CA ANZ-ACCA member survey seeing career opportunities for themselves in fintech.

This should be no surprise, as a profession we have always welcomed the use of technology and data. Technology should be embraced and understood, rather than feared as a means of taking over the work of the accountant. In fact, technology enables accounting and finance professionals to move up the skills value chain to higher value interpretation, analysis, and leadership skills.

There will be challenges, yes, not least from automation, machine learning and artificial intelligence. However, human impact and insights, especially an ethical lens, remain relevant particularly when operating in the tech-enabled world.

This joint report highlights 10 different job roles for professional accountants within fintech and illustrates how their contributions and skill sets add value to the organisations that they represent.

It also calls for governments and regulators to consider the challenges in the fintech space and prioritise efforts for common, multi-jurisdictional standards and regulation as well as to cyber and data security.

Whether in fostering trust in the numbers through audit and assurance, driving digital transformation or ensuring regulatory compliance, professional accountants can play a vital role and, in doing so, carve out new and exciting opportunities for themselves.



Ainslie van Onselen
Chief Executive Officer,
Chartered Accountants
Australia and New Zealand

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Executive summary

Fintech, the coming together of financial services and digital technology, has transformed how financial services are delivered and consumed. It's a sector that's thriving with diverse components: for example, online or 'neobanks', payment systems, payment gateways/application programming interfaces (APIs), investment banking back-end infrastructure, 'insurtech', 'wealthtech' and 'regtech'. And that's before considering frontier areas such as central bank digital currencies, cryptocurrencies, and non-fungible tokens.

With such a bewildering array of activity on offer, it can be easy for professional accountants to assume that this is not something they could credibly engage with. In fact, the exact opposite is true. They are needed more than ever in this still relatively nascent industry, as it seeks to both disrupt and collaborate with the traditional financial architecture that powers our world.

Half of those who responded to a global ACCA – CA ANZ survey see career opportunities for themselves in fintech. Roughly a further quarter don't see career opportunities, but don't categorically disagree with the statement either, perhaps keeping open the possibility for the future.

This report highlights 10 different job roles for professional accountants within fintech and illustrates how their contributions and skill sets add value to the organisations that they represent. This spans a rich seam of experience from chief financial officers (CFOs) and auditors to digital transformation experts and entrepreneurs, to name a few.

And in so doing, it reveals an exciting, wide ranging, and high-value portfolio of skills that professional accountants are already bringing into fintech. These skills include their understanding of new business models, commerciality, and the ability to tell a compelling financial story to investors, driving trust through assurance and clarity of financial information with emerging norms in corporate reporting, a digital-first mindset that can operate without voluminous paper trails and, perhaps crucially, a flexible approach that can pivot to satisfy changing needs in a fast-moving industry.

What emerges is a tremendous opportunity for professional accountants to explore this unfolding landscape. To ensure that they are well placed to benefit as fintech grows in scale and scope, the report provides several perspectives and recommends that accountancy and finance professionals:

- build their awareness of the products and services within the fintech landscape globally and the competitive dynamics that will shape it, looking ahead; this is a multi-dimensional sector with both

business-to-consumer (B2C) and business-to-business (B2B) propositions

- understand the regulatory considerations pertinent to the areas of fintech they're exploring; in many instances (particularly for emerging areas such as cryptocurrencies) there is also a need for those who can help to shape the standards and regulatory treatment
- reinforce an innovation and purpose-driven mindset. The fintech environment is extremely fast paced and dynamic, and benefits from individuals who are excited about new ideas that can drive sustainable value; and who can pivot fast to satisfy changing business requirements.

To provide an enabling environment for this, the report makes the following further recommendations to governments and regulators.

- Come together to develop common principles to underpin a multi-jurisdiction approach to fintech regulation. There are precedents, such as the EU's General Data Protection Regulation (GDPR), covering all EU member states. An international regulatory sandbox should be created to explore minimum global standards for fintech regulation; this was an approach supported by three-quarters of the finance professionals globally who fed into this research.
- Prioritise secure data management and cybersecurity at the heart of frameworks for government and regulatory approval of new fintech products and services. Given the data-driven nature of fintech, cybersecurity is a key concern (expressed by 83% of those who responded to an ACCA/CA ANZ survey) of governments, businesses, and the public. Ways of driving public confidence in this regard include government-backed certification schemes for fintech services and products – particularly those that are business-to-consumer (B2C) – to protect end users.
- Governments should incentivise fintech innovation and growth. Fintech is an industry which attracts talented people and helps to develop high-skill jobs.

It aligns with government and privately funded research programmes, such as those led by major universities. And technology developed for fintech can catalyse other sectors, such as health. We therefore call on governments to consider an approach which prioritises areas identified by finance professionals globally, such as building links internationally to learn best practices, working with education partners to improve skills/training, developing labs/sandboxes to support innovation, and supporting fintech as a tool for the development agenda to tackle challenges such as financial inclusion.



Approach

In addition to literature review, this report is informed by:

- interviews with ACCA and CA ANZ members who are connected to fintech
- a global survey of 5,723 respondents comprising members and students across ACCA and CA ANZ
- survey data support from Meridian West.



Global data summary



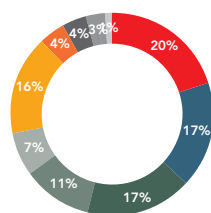
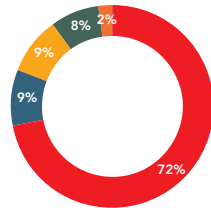
Many aspects of the dataset have been made available externally, and the link to access this is available on the [report homepage](#).

Of the 5,723 respondents:

- 87%** reside in Africa, Western Europe, South Asia and Asia Pacific
- 72%** work full or part-time in an accounting or finance-related role
- 70%** aged between 21 and 45
- 40%** work in the corporate sector, **23%** in public practice, and **14%** in financial services
- 31%** work in an organisation with over 1,000 employees, **19%** with 250-1,000

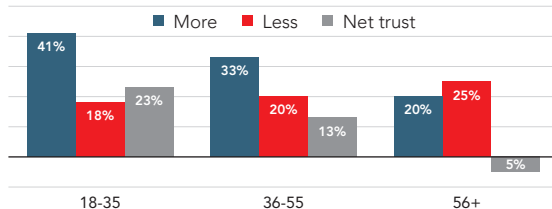
- Part/full-time accounting or finance related role, **72%**
- Part/full-time non-accounting or finance related role, **9%**
- Studying full-time, **9%**
- Not currently working/career break/retired, **8%**
- Other, **2%**

- Africa, **20%**
- Western Europe, **17%**
- Asia Pacific (ex ANZ), **17%**
- Australia, **11%**
- New Zealand, **7%**
- South Asia, **16%**
- Middle East, **4%**
- Central and Eastern Europe, **4%**
- Caribbean, **3%**
- North America, **1%**



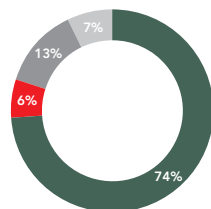
Do you trust Fintech products more or less than traditional financial products?

Trust in fintech reduces with age

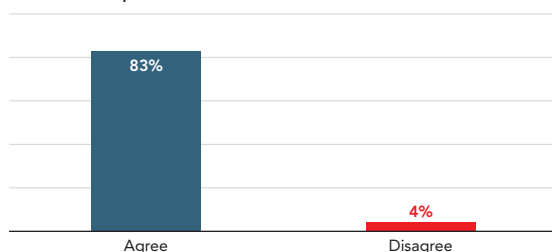


Covid accelerated fintech adoption in your country

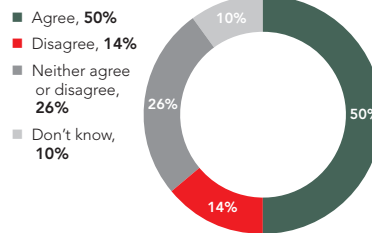
- Agree, **74%**
- Disagree, **6%**
- Neither agree nor disagree, **13%**
- Don't know, **7%**



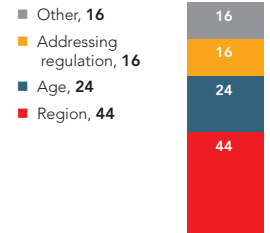
I am concerned about cyber security risks linked to Fintech adoption



I see career opportunities for myself in fintech



Relative influence of drivers for seeing career opportunities



7 drivers were considered: the 4 pillars of the fintech attitude model (see below); and 3 demographics factors (region, age, sector)

FINTECH ATTITUDE MODEL SUMMARISES SURVEY QUESTIONS INTO 4 PILLARS; (maximum available score per pillar is 25)

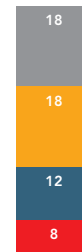
Current adoption – fintech usage tested across 14 products for both professional (in their org) and personal use. A score of 25 means the respondent uses all fintech products cited professionally and/or personally; 0 means they use none.

Trust perception – [1] trust in fintech compared to traditional financial products; [2] compared with well-known FS brands; and [3] concern about cyber risk. A score of 25 means the respondent trusts fintech “much more” than traditional FS products/brands and “strongly disagrees” on cyber risk concern; 0 means “much less” and “strongly agree”.

Addressing regulation – level of agreement with the 3 propositions tested. Namely, [1] need for regulatory alignment between jurisdictions, [2] role of Regtech to tackle volume and complexity of regulation, [3] controlling rollout in some areas of fintech until regulation is more developed. A score of 25 means a respondent “strongly agrees” with propositions; 0 means “strongly disagrees”.

Government support – role of government in supporting fintech adoption. Measured across 8 dimensions namely: [1] tax incentives for fintech [2] labs/sandboxes to support innovation [3] access to funding for entrepreneurs [4] facilitating competition [5] encouraging adoption in smaller cities [6] building links internationally [7] working with education partners to build skills [8] supporting fintech for development, eg financial inclusion. A score of 25 means a respondent “strongly agrees” with all options; 0 means “strongly disagrees” with all.

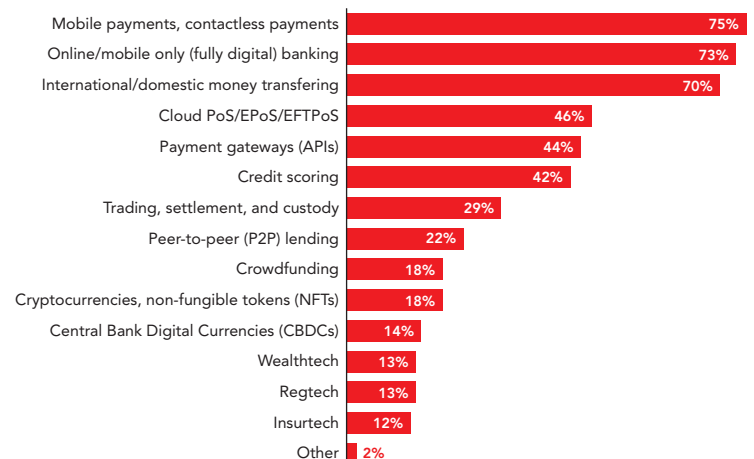
- Government support, **18**
- Addressing regulation, **18**
- Trust perception, **12**
- Current adoption, **8**



- Current adoption is still in relatively early stages at around a third of the maximum possible indexed score
- Trust is a mixed picture with around half the maximum possible indexed score
- The need to address regulation, and for government support came through strongly at almost three quarters of the maximum possible indexed score

Biggest drivers for seeing career opportunities in fintech are **where you live** (those in Africa, Middle-East and South Asia in descending order see greatest opportunity), **how old you are** (younger populations see more opportunity), and **how strongly you feel regulation needs to be addressed** (those with stronger views see more opportunity).

Fintech adoption by product



1. Introduction

Fintech, a term derived from ‘financial’, and ‘technology’, has seen a significant increase in its visibility in recent years.

The Financial Stability Board defines fintech as ‘technologically enabled innovation in financial services that could result in new business models, applications, processes or products with an associated material effect on financial markets and institutions and the provision of financial services’ (FSB 2021). At an operational level, the term effectively refers to computer programs and other technologies used by businesses to provide automated and improved financial services (Deloitte 2020).

The financial services sector is estimated to comprise between one-fifth and one-quarter of the global economy (Ross 2021). When taken together with the everyday reality of making payments or accessing other financial products, it is clear how fundamental this sector is to our lives.

Though the term is more recent, the idea is not. From the earliest credit cards and ATMs more than 50 years ago, to electronic funds transfer systems, digitised finance has long been there. But the 2008 global financial crisis brought renewed focus on the sector and its frailties.

And in so doing, it exposed the need for improvements, which came in the form of fintech start-ups springing up

to tackle various pain-points in the traditional financial system. These ranged from B2C products to improve user experience when dealing with banks, to products tackling access-to-finance issues for small and medium-sized entities (SME), to improvements to back-end complicated legacy systems within institutional and investment banking.

This is the result of several factors taking shape in parallel. These include Cloud computing, the data explosion, the rise of artificial intelligence (AI), an increasing familiarity with decentralised technologies; as well as regulatory developments to enable data privacy and sharing.

Professional accountants are well placed to participate in this maturing sector. To grow and attract investment, fintech operators value those who can help them professionalise while maintaining their innovation ‘DNA’.

Whether in fostering trust in the numbers through audit and assurance, driving digital transformation or ensuring regulatory compliance, professional accountants can play a vital role and, in doing so, carve out new and exciting opportunities for themselves.

THE FINANCIAL SERVICES SECTOR IS ESTIMATED TO COMPRISE BETWEEN ONE-FIFTH AND ONE-QUARTER OF THE GLOBAL ECONOMY (ROSS 2021). WHEN TAKEN TOGETHER WITH THE EVERYDAY REALITY OF MAKING PAYMENTS OR ACCESSING OTHER FINANCIAL PRODUCTS, IT IS CLEAR HOW FUNDAMENTAL THIS SECTOR IS TO OUR LIVES.

A photograph of a middle-aged man with grey hair and a beard, wearing a white shirt and a dark sweater. He is looking out of a window, with his hands resting on the windowsill. The background is a blurred office interior.

PROFESSIONAL ACCOUNTANTS ARE WELL PLACED TO PARTICIPATE IN THIS MATURING SECTOR. TO GROW AND ATTRACT INVESTMENT, FINTECH OPERATORS VALUE THOSE WHO CAN HELP THEM PROFESSIONALISE WHILE MAINTAINING THEIR INNOVATION 'DNA'.

2. Setting the scene

- Fintech is disrupting all aspects of financial services and comprises a diverse range of segments.
- It's a global story spanning both developed and emerging markets.
- Fintech start-ups both compete and cooperate with large incumbent banks; 'bigtech' companies, ie Amazon, Google, etc. are emerging as key competitors.
- Regulation is playing catch-up with the fast pace of innovation.
- Fintech culture tends to be less hierarchical and more flexible, enabling firms to adapt fast to changes.
- Fintech has the potential to support environmental, social and governance (ESG) objectives, eg financial inclusion through cheaper access to finance.

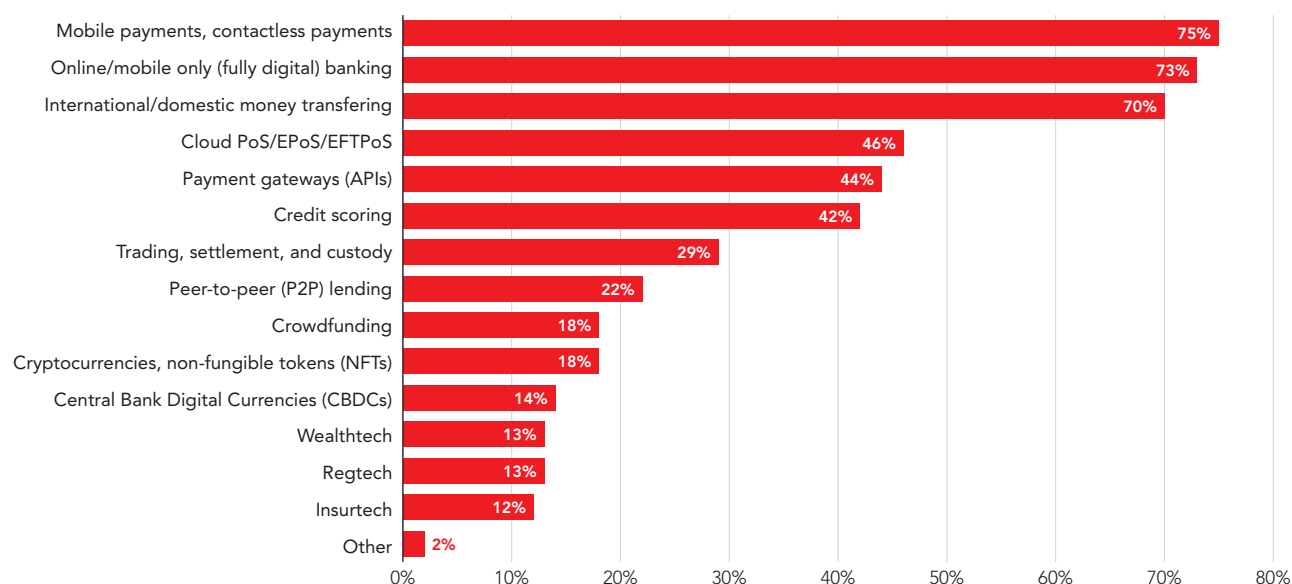
2.1 Diverse and growing

If one believes in the adage that one should 'follow the money', then this shows that fintech is firmly established. Global venture capital investment in fintech start-ups reached USD 125bn in 2021 (Dealroom.co 2022), its highest ever, and 2.8 times the levels seen in 2020. Fintech is a multi-faceted sector comprising a range of products and services (Figure 2.1).

Payments and lending are cited as significant areas of fintech adoption. On payments, 70% of our survey respondents are using fintech for money transfer. There have been a range of innovations in this space, such as peer-to-peer systems where two individuals with matching currency requirements can transact via a platform (say, one selling euros and buying pounds sterling, the other doing the reverse).

Fintech is used by 75% of them for phone based and contactless payments: often a very recognisable form of fintech for the end consumer, while 44% cite more back-end use cases involving APIs to connect payments and data across different systems. Almost half of respondents report using online/mobile only banking. 42% report using credit scoring applications. As regards other sources of loans or funding, P2P lending was mentioned by 22% of respondents and crowdfunding by 18% of them. About 30% reported use linked to wholesale or investment banking in their organisations via areas such as trading, settlement, and custody. Use of 'frontier' areas such as central bank digital currencies, cryptocurrencies and non-fungible tokens was reported by approximately 15% of respondents.

FIGURE 2.1: Fintech adoption by product (either in their organisations professionally, or in their personal lives)



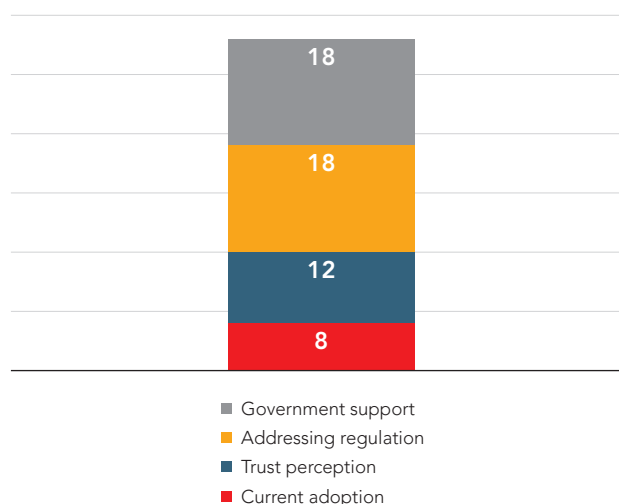
1. **Online/mobile only (fully digital) banking:** Banks with no physical branches
2. **Peer-to-peer (P2P) lending:** borrower connects directly with lender through online platform, removing bank's role as intermediary
3. **Crowdfunding:** funding a project/venture by raising money from many people who each contribute a relatively small amount, typically via the internet
4. **Credit scoring:** statistical analysis performed by lenders and financial institutions to determine creditworthiness (ability to pay back the loan)
5. **International/domestic money transfer:** electronic funds transfer
6. **Cloud PoS/EPoS/EFTPoS:** point-of-sale technologies to process and store sales data online as opposed to locally on computer or on-premises server
7. **Mobile payments, contactless payments:** payment using credit card details stored in mobile, or where there is no contact needed to physically 'swipe' the credit card
8. **Payment gateways (APIs):** application programming interface, which is a software intermediary that allows two applications to talk to each other
9. **Regtech:** uses technology to improve regulatory controls/process, eg risk/fraud profiling, regulatory reporting, market monitoring, digital identity, know your customer (KYC)
10. **Insurtech:** uses technology to improve insurance offerings/process, eg apps to extend coverage or reduce premium (eg use-based), claims and risk management applications, IoT (including telematics)
11. **Wealthtech:** uses technology to improve wealth management, eg robo-advisers, personal financial management (budgeting apps, financial comparison sites)
12. **Trading, settlement, and custody:** Trading (buying/selling shares and other financial assets, eg high-frequency/algorithmic trading, copy and mirror trading), settlement (ensuring transfer of asset and exchange of associated funds among the correct parties, eg broking and clearing services); custody (secure mechanisms to hold assets, eg vaults, mobile/web wallets)
13. **Cryptocurrencies, non-fungible tokens (NFTs):** cryptocurrency (digital/virtual currency that is secured by coding to protect it from fraud), NFT (a token that cannot be exchanged for another on a like-for-like basis, eg a token representing ownership of a work of art which is the only one of its kind in the world)
14. **Central Bank Digital Currencies (CBDCs):** use technology to represent a country's official currency in digital form and are regulated by a country's monetary authority

The survey was used to develop a fintech attitude model with four pillars as shown below, with the maximum available score for each pillar being 25:

- **Current adoption** – fintech usage tested across 14 products for both professional (in their org) and personal use. A score of 25 means the respondent uses all fintech products cited professionally and/or personally; 0 means they use none
- **Trust perception** – [1] trust in fintech compared to traditional financial products; [2] compared with well-known FS brands; and [3] concern about cyber risk. A score of 25 means the respondent trusts fintech "much more" than traditional FS products/brands and 'strongly disagrees' on cyber risk concern; 0 means 'much less' and 'strongly agree'
- **Addressing regulation** – level of agreement with the 3 propositions tested. Namely, [1] need for regulatory alignment between jurisdictions, [2] role of Regtech to tackle volume and complexity of regulation, [3] controlling rollout in some areas of fintech until regulation is more developed. A score of 25 means a respondent "strongly agrees" with propositions; 0 means "strongly disagrees"
- **Government support** – role of government in supporting fintech adoption. Measured across 8 dimensions namely: [1] tax incentives for fintech [2] labs/sandboxes to support innovation [3] access to

funding for entrepreneurs [4] facilitating competition [5] encouraging adoption in smaller cities [6] building links internationally [7] working with education partners to build skills [8] supporting fintech for development, eg financial inclusion. A score of 25 means a respondent "strongly agrees" with all options; 0 means "strongly disagrees" with all

FIGURE 2.2: Scores across the pillars of the fintech attitude model



- Current adoption is still in relatively early stages at around a third of the maximum possible indexed score
- Trust is a mixed picture with around half the maximum possible indexed score
- The need to address regulation, and for government support came through strongly at almost three quarters of the maximum possible indexed score

Fintech is a truly global story, one that is shaping ways of delivering financial services in both developed and emerging markets. The use of mobile technology to make fast, safe, and inexpensive payments has, for example, removed the need for expensive bank branches in all parts of a country. This clearly has implications for financial inclusion in addition to core innovation.

Fintech in Africa

Patrick Saidu Conteh, Regional lead, Sub-Saharan Africa, Cambridge Centre for Alternative Finance; formerly Governor, Central Bank of Sierra Leone



Fintech is reshaping financial services in Africa. Technology influences the channels used to reach end users, the price points at which this can happen, and the costs of doing so. It's driving innovation across the sub-Saharan region, with Kenya, Nigeria, and South Africa in the east, west and south being active hubs.

The big area of fintech innovation in Africa is payments. This is followed by digital lending, though this is still growing, and to a lesser extent areas such as crowdfunding. Payments have been around the longest, with mobile-based payments such as m-pesa in Kenya being 15 years old now. Newer areas of interest include central bank digital currencies (CBDCs), which represent an efficient way of transferring value across the population, at a lower cost than printing cash. This is in principle promising but needs to be carefully and cautiously considered to avoid diluting the central bank's traditional mandate on setting monetary policy.

My interests focus on policy development for enabling safe, long-term value from fintech, and in a way that places financial inclusion at the core. The benefits of innovation must be shared across the population, particularly with the disadvantaged.

The rapid pace of innovation in Africa is frontrunning regulatory developments and there is catching up to

do. A lot of my work therefore involves supporting an increased understanding of urgent policy requirements. I see these requirements across three dimensions: updating existing regulations, creating new bespoke regulation for fintech, and creating innovation hubs/sandboxes enabling regulators to understand better what innovators are thinking. A robust regulatory regime recognises how fintech cuts across standard industry verticals. When money is sent via a mobile phone, there is a need for regulatory compliance across both financial services and telecommunications.

There are, of course, core infrastructure challenges on the African continent, and fintech like any sector, is navigating these. For example, this is a data-driven industry and would therefore benefit from large-scale penetration of fibre optic cables to enable high-speed data transfer. Despite these challenges, innovators have been resilient and there is a clear trend of investment dollars pouring in.

Professional accountants will play a vital role in the maturing of fintech. As the scale and significance of the sector increase, there is a need for robust financial management, and reliable, independent assurance of information to drive trust in the ecosystem. These are still relatively early stages, and the opportunity is there for the accountancy and finance community to be part of shaping events. ■

2.2 Competitive dynamics

Handling other people's money is a sensitive business which can make the operating environment risk-averse and regulation-heavy. While there are good reasons for caution in such an important area, over decades this has also made financial services in many markets a 'closed shop'.

It's not unusual for a handful of large well-recognised brands to control the majority of or even the whole market in many areas of financial service provision. These become centralised nodes through which most financial activity gets channelled. In the UK for example, four banks (HSBC, Barclays, Lloyds and RBS) control more than half of all assets owned by UK banks, with the largest one having a 25% market share (Norrestad 2022).

Fintech can disintermediate influence away from these centralising forces. For example, peer-to-peer (P2P) products and decentralised technologies seek to achieve efficiency gains and superior pricing by having actors (such as lenders and borrowers) transact more transparently and directly with each other, instead of being forcibly routed through an intermediary.

Customers have changing expectations from financial services. The global financial crisis, millennial customers, and the reduction/removal of branches have all combined to require a much more purposeful, customer-focused and technology-led approach.

'I was lucky enough to witness the fintech phenomenon at close quarters, from the growth of fintech start-up companies to the transformation of the UK banking sector. From 2017 to 2020, I conducted a substantial research project in UK banking, looking into almost everything about fintech in the UK banking sector. My research provides a deeper understanding of how big established UK banks are responding and reinventing their business models to survive and thrive in the highly dynamic fintech ecosystem. I have been fortunate to build up many connections and engage with the key stakeholders of the fintech ecosystem'.

Dr Michelle Yeong, Fintech consultant, Australia

Fintech's competitive position is linked to the trust placed in it by consumers, which varies by age (Figure 2.3).

Over time, the increased influence of currently younger demographics, the further maturing of fintech products and increased familiarity with fintech brands could all combine to bolster trust.

It can be tempting to think of incumbent financial service organisations as slow and being disrupted by the fast moving 'new kids on the block' from fintech. In fact, the reality is much more nuanced, and their relationship is best seen as a mix of collaboration and competition.

FIGURE 2.3: Compared to traditional financial products, do you trust Fintech products more or less, by age group
(More: total of a bit more, much more; Less: total of a bit less, much less)

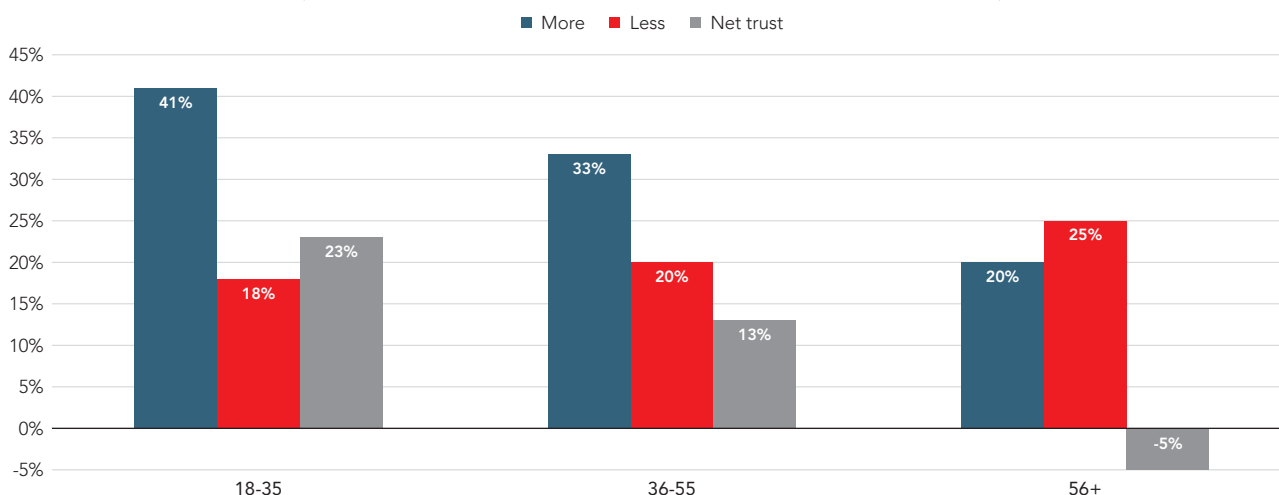


FIGURE 2.4: Fintechs v incumbents

WHERE FINTECHS MAY WIN	WHERE INCUMBENTS MAY WIN
Seamless user experience	Long standing customers, mix of loyalty and apathy about change
Cloud-native, digital-first	Well-embedded internal control and cybersecurity frameworks
Innovative product range	Perception of product safety, eg deposit security owing to banking licence
Accessing untapped demographics	Data insight from millions of existing customers
Nimble, quick to pivot to new ideas	Scaling new ideas quickly by leveraging existing customer base
Competitive pricing	Brand trust, name recognition
Minimal/zero cost of physical presence	Able to absorb cost of regulation

They have different strengths (Figure 2.4) and, in many cases, benefit from working together. There is a well-trodden path of fintechs bringing an innovative idea to disrupt one part of the vast range of offerings that a universal bank has, and in so doing being acquired by the bank and integrated into the latter's workflows and technology stack.

'Big Tech' is a significant factor. Organisations such as Facebook, Amazon, Google and Apple have the technology capabilities of a fintech start-up, but also the deep pockets and existing customer base of a large incumbent bank. There may be a spectrum of opinions on brand trust, as Facebook's experiment with Libra demonstrated, but they are unquestionably a force to be reckoned with. And they're well on their way, with Apple Pay and Google Pay being widely used in many markets, for example.

2.3 Room for innovation

'Disruption' is at the heart of fintech – delivering financial services more cheaply, better and faster. It is perhaps an indictment of the status quo that the opportunities to do this are plentiful and will not vanish anytime soon.

'I value finance professionals who're bright, commercial, inventive, and robust. And [I] often learn as much from such individuals as they do from me. Such individuals tend to thrive in an innovation ecosystem – to be prepared to stick their head above the parapet and have an opinion; and if needed, to fail fast and iterate'. **Philip Wright**, Fintech expert, UK

Fintech challenger banks or 'neobanks' offer an online user experience and Cloud-based back-end that isn't hampered by physical branches or decades-old legacy systems. They may improve user experiences, eg mobile-first, providing value-added services, eg personalising service via a granular understanding of the customer journey, or harnessing analytics, eg viable business models for niche customers that are not economical for mainstream banks.

Payments are another huge area for innovation. Handling payments has tended to be complicated, with high fees, such as for international money transfer involving different currencies. Fintech methods such as peer-to-peer (P2P) payments can be cheaper and faster. This is the tip of the iceberg – from Buy Now Pay Later (BNPL) to crowdfunding, insurtech and wealthtech, there is a universe of different approaches.

'Innovate Finance is the independent industry body that represents and advances the global fintech community in the UK. I am constantly amazed by the potential for fintech to transform the economy and the delivery models for financial services that cross our radar. I believe the innovation is just getting started, and professional accountants have a lot to offer to this ecosystem'. **Thin Chambers**, CFO, Innovate Finance, UK

A key driver for innovation in fintech is the ability to access a customer's banking or other financial data when they consent to this. Historically, this data was only available to their bank, but with the introduction of 'open banking' in many jurisdictions, the customer can agree to share this data with third-party providers such as fintechs. The data can be shared in a specified regulation-compliant manner using application programming interfaces (APIs) that manage the problem of unfiltered sharing which can be a risk with screen-scraping methods.

This innovation, based on the ability to combine data analytics with data sharing, is also being embedded in products variously referred to as 'banking-as-a-service' (BaaS) or embedded finance. A comprehensive BaaS platform allows banking services to be offered by non-bank actors, something they couldn't normally do, given the need for a banking licence. For example, a website selling furniture might also offer a loan to purchase said furniture, with the finance element being handled via the BaaS platform that it has signed up with. Essentially it allows access to banking software in a compliant manner for entities that are not within the bank.

2.3.1 Innovation frontiers

Cryptocurrencies The market capitalisation of all cryptocurrencies ('cryptos') currently exceeds US\$2 trillion, suggesting they have gained a place among asset classes. Looking ahead, their continuing maturity could depend on factors such as the intrinsic value of a coin (ie beyond just what someone is willing to pay for it), use as everyday money, managing money laundering risk and high energy consumption. Cryptos are part of a broader push to Web 3.0, which is based on decentralised ways of initiating and validating financial transactions. As these transactions get more sophisticated (eg cryptocurrency lending in addition to payments), a new eco-system sometimes termed 'DeFi' is aiming to replace current structures.

'Decentralised finance (DeFi) uses emerging technology such as blockchain to remove third parties in financial transactions. It aims to reduce transaction times and increase access to financial services. As DeFi is still in early stages of its evolution, it's worth being wary of hacks and scams.

Greengage's mission is to deliver merchant banking services to cryptoassets companies and SMEs – providing a robust digital banking platform using advanced technologies, facilitating cost-effective transactions within and across traditional currency and cryptoassets, while adhering to highest established standards of compliance and security. I manage the finance and accounting function to ensure compliance with all filing and reporting requirements, safeguard the business's assets and manage relevant risks with appropriate policies and procedures, as well as assisting on business development by developing industry expertise, providing timing and insightful management information'. **Yang Yu**, Financial Controller, Greengage Global Holding, UK

Regulation of cryptocurrencies is under development and varies by jurisdiction. The Securities and Exchange Commission (SEC) in the US has proposed classifying cryptocurrencies as securities, which would entail rigorous reporting and disclosure requirements. Other US lawmakers argue that instead they should be classified as currencies or commodities [Stacey and Palma 2021]. Many financial regulators consider that cryptocurrencies should be treated as assets rather than currencies, though some argue that even as assets they establish no claim on any future income streams or collateral.

Stablecoins link the worlds of cryptocurrency and central bank fiat money in that they are digital tokens pegged to the value of another currency, often the US dollar, or a basket of currencies or gold. This dramatically reduces price volatility compared with cryptocurrencies such as Bitcoin. Such price stability makes them suitable as a means of payment, which is a key attraction. The

decentralised blockchain technology used for settlement allows stablecoins to offer fast, low-cost and global payment transfers without the use of a costly intermediary.

The stability rests on the holding by issuers of sufficient assets and collateral to allow redemption of the coins for cash. But the quality and quantity of such assets may not be transparent and inadequate funding could undermine consumer protection. In October 2021 Tether, the longest standing stablecoin, was fined \$41m by the US Commodity Futures Trading Commission (CFTC) for claiming it was fully backed by US dollars. (Palma and Stafford 2021).

Central Bank Digital Currencies (CBDCs) The advent of stablecoins threatens the sovereignty of central banks over money issue and potentially monetary policy. The chairman of the US Federal Reserve, Jay Powell, recently admitted that the concept of Facebook's Libra project 'lit a fire' under central bankers to consider CBDCs (Massad 2021). Unlike cryptocurrencies or stablecoins, CBDCs are not created or issued by the private sector. Instead, CBDCs are digital versions of the physical notes and coins issued by central banks and they would therefore have the same central bank guarantee for their value – say, in times of crisis.

CBDCs could provide an efficient, low-cost payments system using blockchain, and with a government guarantee. They could also boost financial inclusion by offering a safe and liquid government-backed means of payment to the public that requires a smartphone with a digital wallet but not a bank account. They may enable immediate and low-cost transfer of funds to support incomes during a severe recession, such as occurred at the onset of the Covid pandemic.

But the risk of negative implications elsewhere in the financial system would also need to be considered. By offering digital deposits that are 100% government guaranteed, CBDCs could draw deposits away from commercial banks. This could result in reduced private sector credit since bank deposits are the key counterpart to private sector credit creation. At the very least, it could result in higher interest rates on loans as banks came to rely on more expensive sources of funding than retail deposits. In addition, during a financial crisis fears about the viability of the commercial banking system could trigger sudden and large transfers of deposits from banks into CBDC deposits, thereby exacerbating the crisis.

One of the few countries with a fully deployed CBDC is the Bahamas, where the Sand Dollar was launched in 2020, as a collaboration between the central bank, payment card group Mastercard and digital payments platform Island Pay (Venkataramakrishnan 2021). China is running pilots of an e-yuan digital currency in some major cities and the Riksbank in Sweden is also trialling a pilot e-krona in collaboration with a large commercial bank. The Bank of England and the European Central Bank have both launched major studies and consultations into

the feasibility of introducing a CBDC (Bank of England 2021; European Central Bank 2021). Neither has yet taken a final decision on introducing a CBDC and for both the earliest possible date to launch a digital currency is the second half of the 2020s. Meanwhile, the US Federal Reserve launched a consultation on a digital dollar in January 2022 with publication of a paper on this (Board of Governors of the Federal Reserve System 2022). In addition to domestic considerations, there could be wider international implications of a digital dollar, since the US dollar is the dominant global reserve currency. A widely available digital dollar could reinforce ‘dollarisation’ – the replacement of national currencies with the US dollar in countries with high and variable rates of inflation.

Non-fungible tokens (NFTs) NFTs are digital tokens that represent an image, video, or other item. Like cryptocurrencies they’re recorded using blockchain technology. But while cryptocurrencies are fungible – one Bitcoin is worth the same as another Bitcoin – NFTs are not fungible. Each NFT is unique and held in a single digital wallet which gives the name of the NFT and a link

to the image. The image can be downloaded and copied by anyone, but ownership of the original is recorded using blockchain. NFTs are the most recent crypto innovation, first being created in 2015. They are issued and traded on digital platforms such as Foundation or OpenSea, with prices quoted and transactions conducted in cryptocurrency. Total NFT trading reached \$5.9bn in the third quarter of 2021, up from just \$782m in the first quarter of the year (Bradshaw, 2021).

Blockchain technology in NFTs allows smart contracts to be included. An artist might include a contract to receive royalties on any future sales of the original work. The use of blockchain ensures that such contracts are completed automatically at negligible cost, something that would not be possible in the ‘real’ world. This feature also enables musicians and high-profile sports stars to attach exclusive content to NFTs such as front-row seats at events – without the need for an intermediary. This may also be a route to exploring the ability to conduct programmable digital financial transactions on a digital asset within a digital environment, ie immersing the process in the ‘metaverse’.

Considerations for finance

Accountancy and finance professionals need to keep abreast of developments across the range of digital assets, including the evolving regulatory environment. Over time, some digital assets could become part of finance operations. But at present their relatively early stage of development and in many cases speculative nature suggests they should be treated with caution by the custodians of an organisation’s finances.

- Price volatility in cryptocurrencies makes them unsuitable for holding as a corporate asset. A 2021 survey by Gartner showed that only 5% of finance executives planned to hold Bitcoin as a corporate asset in that year (Meulen 2021). Moreover, 84% said they planned never to do so. The main reason for this was the financial risk caused by the volatility in the price of Bitcoin.
- Some organisations are considering accepting cryptocurrencies as payment for goods and services. An argument for this has been its potential for attracting new customers and sales. A small US-based study found that ‘up to 40% of customers paying with crypto are new to the merchant’ and purchase amounts ‘are twice that of those made with credit cards’ (Businesswire 2020) CFOs may consider a ‘hands-off’ approach, simply converting in and out of crypto into fiat currency to make or receive payments without holding the crypto itself. This can be achieved by paying a third-party vendor to act as agent for the company, dealing with all the technical and regulatory issues.
- Stablecoins have the potential to make cross-border payments instantaneously and at any time of day, seven days a week – an advantage over the commercial banking system. On the face of it this may appear to be a benefit. But there remains risk given the lack of clarity of how well they can peg to the fiat as they claim. In addition, regulatory and disclosure requirements relating to stablecoins need to be monitored closely as some jurisdictions tend to bundle their treatment in with that of cryptocurrencies, where requirements may be quite significant for use in standard commercial use cases.
- The response to CBDCs will depend to some extent on the exact design and structure of each CBDC. But the common characteristic of all CBDCs is that they are the liability of the state and therefore guaranteed in a way that private money in the form of the liabilities of commercial banks are not. CBDCs, if introduced, may form part of the working capital of companies, like the role played historically by cash. However, unlike cash, in certain circumstances, a CBDC may enable the implementation of negative interest rates on deposits.

2.4. Regulatory developments will be key

Technology changes lives when it breaks through to adoption at scale. This is usually difficult without a maturing of regulatory approaches. Regulation is evolving within jurisdictions, though as survey respondents indicated (Figure 2.5), there appears to be a preference for proceeding with caution.

There is also a clear preference for avoiding reinventing the wheel and for jurisdictions to learn from one another where possible. Harmonising regulation to common principles was favoured by our survey respondents, where possible (Figure 2.6), as it reduces the cost of doing business, regulatory arbitrage and enables cross-border flows of capital and talent.

Open banking has existed in the UK since 2018 and the principle exists in European regulation as part of the second Payment Services Directive (PSD2). Open banking in its original form had a tightly defined scope for sharing data on current accounts and payments. This was expanded to 'open finance' by adding some additional categories, including savings and mortgages.

Australia has taken open finance as its starting point, in the spirit of avoiding 'reinventing the wheel', and is expanding this to 'open data' regulation. The Consumer

Data Rights legislation was passed in 2019 and is being rolled out in stages. The legislation has been designed to provide consumers with economy-wide data rights beyond financial services, including in sector such as telecoms and energy. When it is fully implemented, with customer consent, third-party providers will be able to access data across the economy as per the original model developed for financial services. In 2021, the New Zealand government announced its intention of introducing a similar legislative framework for a 'Consumer Data Right', with legislation likely to be introduced in 2022.

The development of open banking is in its infancy but, as illustrated in Table 2.1 below, several jurisdictions, including the EU, the UK, Hong Kong, and Australia, have taken regulatory measures to stimulate its growth. Any regulation must strike a fine balance between fostering innovation and flexibility, and safeguarding individuals and the integrity of the financial system. Australia has mandated data sharing across multiple sectors with via their multi-sector Consumer Data Right rules introduced in 2020, the New Zealand government recently signalled its intention of developing a similar regime. Singapore and the United States of America (USA) do not mandate open banking, however, the US government recently signalled that it intends to develop a regulatory framework imminently.

TABLE 2.1 Global Open Banking Regulation

JURISDICTION	MANDATORY OPEN BANKING?	FRAMEWORK	YEAR INTRODUCED	STATE OF PLAY
New Zealand	X	Currently no legislative framework.	N/A	Currently consumer data portability is limited, and no legislative framework exists. However, in 2021, the New Zealand government announced its intention to implement a legislative framework for a consumer data right. Legislation is likely to be introduced in late 2022 and the framework is likely to be a multi-sector model.
Singapore	X	Open banking in Singapore is not mandatory	2020	Open banking in Singapore is voluntary, but still reasonably widely adopted by Singaporean banks. In 2016, the Monetary Authority of Singapore (MAS) published Financial World: Finance-As-A Service API Playbook, in partnership with the Association of Banks in Singapore to guide financial institutions in developing and adopting open APIs (ABS-MAS 2016.). This was viewed as the gold standard for regulatory advice on the topic (Rothwell 2018). More recently, in 2020 the MAS launched the Singapore Financial Data Exchange (SGFinDex) as part of the government's Smart Nation programme. SGFinDex is an open banking initiative that involves the consolidation of financial data from banks and government agencies in a single place, instead of multiple locations. SGFinDex is a multi-stage initiative which commenced with banking. The second phase of the SGFinDex was launched in November 2021, enabling individuals to access their financial information via applications held across a range of government agencies and financial institutions.

JURISDICTION	MANDATORY OPEN BANKING?	FRAMEWORK	YEAR INTRODUCED	STATE OF PLAY
Hong Kong	✓	The Open Application Programming Interface (Open API) framework	2018	The Hong Kong Monetary Authority implemented an industry-wide Open API Framework to support open banking in 2018. The adopted a risk-based principle and a four-phased progressive implementation approach. The first two phases were implemented in 2019, the final two phases commenced in December 2021.
United States of America	✗	Currently no legislative framework.	N/A	The USA does not currently have a regulatory framework for open banking; however, regulations appear to be under development. In 2020, the Consumer Financial Protection Bureau issued an advance notice of proposed rulemaking on 'Consumer Access to Financial Records' (ANPR). The ANPR does not specifically refer to 'open banking' but it consulted on the extent to which a consumer may access his or her financial records through a third party.
Europe	✓	The Revised Payment Services Directive (PSD2, Directive (EU) 2015/2366	2015	Open banking in Europe has been enabled by the Revised Payment Services Directive (PSD2). PSD2 was introduced in 2015 with EU member states being required to transpose it into their national law by 2018. PSD2 requires EU payment service providers, such as banks, to allow their customers to securely share their data with third parties. PSD2 is currently under review by the EU to assess the extent to which it has achieved its original objectives (European Commission n.d.).
Australia	✓	Competition and Consumer (Consumer Data Right) Rules	2020	The Consumer Data Rights legislation, passed in 2019, is being rolled out in stages across the financial services, telecommunications and energy sectors. The legislation was designed to provide consumers with economy-wide data rights reaching beyond financial services to sectors including telcos and energy.
UK	✓	The Payment Services Regulations 2017	2017	In 2017 the Competition Markets Authority and UK government mandated nine of the largest retail banks (known as CMA9) to implement common standards for open banking. Many other banks voluntarily elected to offer open banking by creating the open APIs required to participate.

FIGURE 2.5: Controlled roll-out of some areas of fintech is needed until regulation is developed for them

(Total of agree and strongly agree; disagree and strongly disagree)

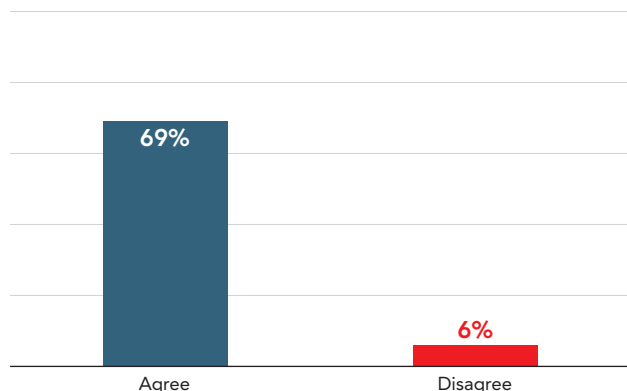
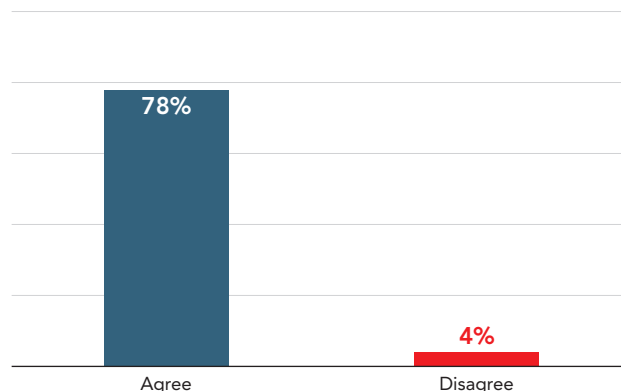


FIGURE 2.6: There is a need for greater regulatory alignment between countries based on common principles

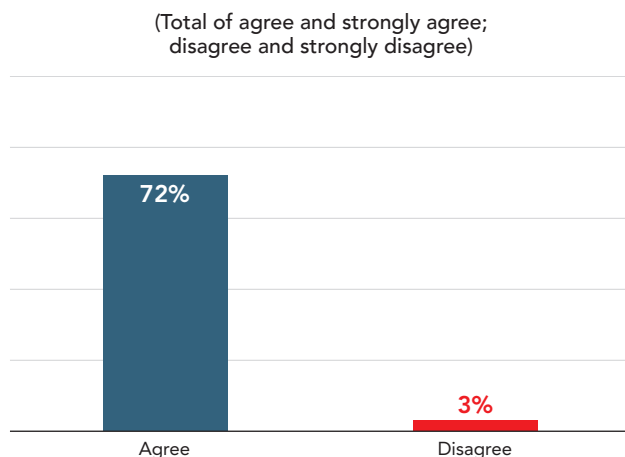
(Total of agree and strongly agree; disagree and strongly disagree)



The goal is to use balanced regulation to create an environment that fosters innovation while protecting consumers and maintaining financial stability. Given the pace of technological change, an outcomes-focused tech-neutral approach that evaluates ‘what it does’ rather than ‘how it works’ may help to avoid over or under legislating.

Setting regulatory requirements is one side of the coin. The other is the processes required to comply with these regulations. Regtech has stepped into the gap to automate complex, wide-ranging compliance requirements and is expected to be a big part of the future reduction of compliance costs (Figure 2.7).

FIGURE 2.7: There is a need for regtech tools for compliance, to tackle the volume of and complexity of regulations

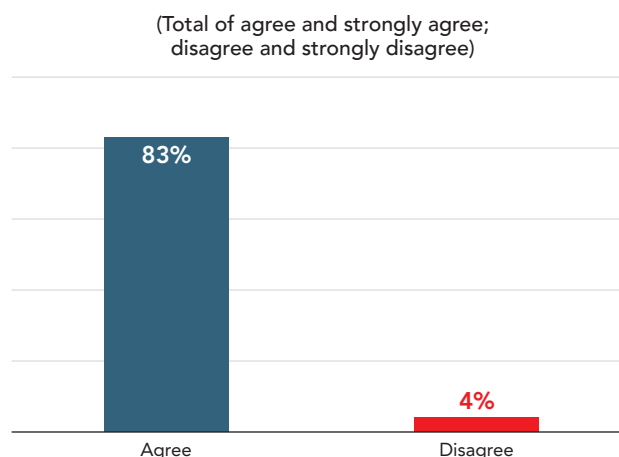


A significant area is digital identity, a bedrock of ‘know your customer’ (KYC) and related compliance checks. This also overlaps with financial inclusion as the most

disadvantaged people generally lack proper ID. Secure, digital, cost-effective ID will be a game changer, reducing fraud because next-generation digital ID can enable appropriate disclosure. A paper document can contain a lot of ID information not relevant to the requirement at hand. For example, to check facial match, knowing the address is irrelevant.

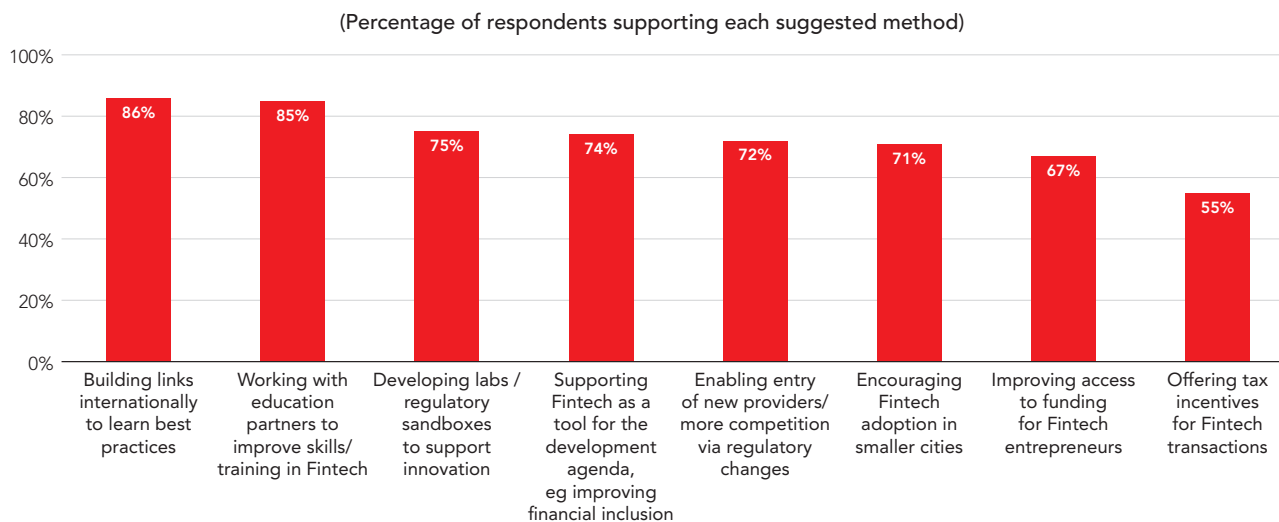
Cybersecurity is a key concern among survey respondents for safely deriving the benefits from fintech (Figure 2.8). Fintech is, after all, a completely data-driven approach, and the ability to securely manage data and associated processes is therefore critical.

FIGURE 2.8: I am concerned about cybersecurity risks linked to fintech adoption



It is also evident that governments have an important role to play in creating a supporting eco-system for fintech to thrive. Respondents cited a range of areas, notably, the need for links internationally so that they can share best practice and build skills in what is an emerging area.

FIGURE 2.9: How should governments support fintech adoption?



2.5. Cultural fit

The culture in a fintech firm can be different from that of a traditional large financial services organisation. It has elements of tech industry culture with its more informal style of working. Also, it's an innovation-driven culture in which there is pride in ideas, learning, quick decision making, and changing direction fast when needed.

'CBG is expanding into the Digital Banking Business (Brillink Bank Corporation) to provide multi-dimension banking and financial services to meet the banking business demands of corporate clients across Asia, Europe and beyond. As we prepare for this it is clear to me that mindset, attitude for learning and being open minded by accepting you'll never know everything are essential to stay relevant and to thrive'.

Hidy Chan, Audit Committee Chair, China Brilliant Global (CBG), China

It may be that given the regulated nature of financial services, the fintechs that succeed will be those that find a way of marrying their small organisation DNA, which allows new ideas to thrive, with a culture of reliable oversight that fosters trust among stakeholders. Key to achieving this is staffing the organisation with the right people: those who not only satisfy baseline skills requirements, but also, importantly, fit into the culture needed to succeed now and in the future.

'I have worked both at a fintech and in a large financial services organisation. And I can see the benefits of both sides. Fintech culture has brought a certain nimble and open approach, which I think can complement the highly structured approach typically needed within a large banking organisation'.

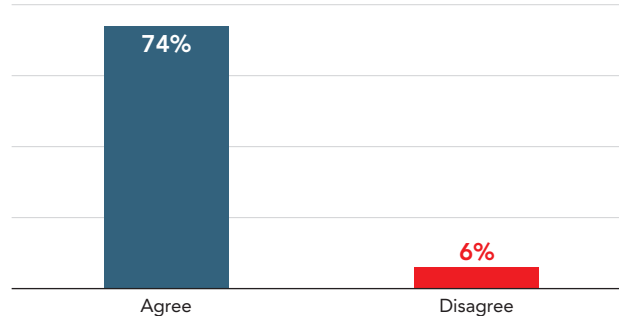
Dariusz Gafka, Non-executive Chairman, Santander Consumer Bank, S.A., Poland

2.6. Fintech and ESG

Covid-19 is a human tragedy. In its wake, though, it has also imposed digital adoption in an unforeseen manner and to an unprecedented extent. This has spurred digital engagement, including among demographics with historically lower digital engagement, such as older people. It has also significantly increased the awareness of non-cash means of payment. These factors could have played a part in accelerating fintech adoption (Figure 2.10).

FIGURE 2.10: Covid-19 has accelerated fintech adoption in your country

(Total of agree and strongly agree; disagree and strongly disagree; those not included selected 'neither agree nor disagree')



Fintech has a role in driving wider stakeholder and societal (ESG) value.

- **Financial inclusion:** finance and payment mechanisms for those locked out of formal banking systems remain a priority. There are over a billion unbanked adults in the world, over half of whom are women (SEPA Cyber Technologies n.d.). There is also the challenge of identifying genuine inclusion: for example, where individuals technically have a bank account but don't use it. It has no balance, is expensive to operate or inconvenient owing to lack of bank branches. In many parts of the world, fintech innovations such as mobile phone-based payments have facilitated money transfers, though this is only one part of a larger challenge, and more progress is needed. Those who are poor have never needed to understand how lending methods and payment rails (enabling transfers of value between institutions) aimed at much higher transaction values work. For banks, it's uneconomical to transact below a certain ticket size. Fintech can offer micropayments and cost-effective simple outcomes that are accessible to 'base of pyramid' customers.
- **Financial literacy:** a lack of financial experience, basic numeracy and literacy combine to make understanding financial transactions an uphill task for many disadvantaged customers. In this sense, literacy is the other side of the coin to inclusion. But a lack of education can also affect those who seem well educated or relatively well-off, such as not realising when they are taking on unsustainable amounts of debt. Some fintechs have entered the financial education space and are building businesses on activities increasing awareness among different demographics. For example, some are targeted at helping parents to educate their children in basic money management.

- **Financial wellness:** this is the logical result of better financial literacy. And many fintechs are actively engaging in this area. A critical underpinning is the previously mentioned open banking regime, which affords a view of how a customer is managing their cashflows. Using machine learning, it has become feasible to understand and predict payments, manage lumpiness in cash flows and provide 'nudges' to encourage more responsible financial behaviour. From applications supporting budgeting and basic account consolidation to those enabling detailed personal financial management, there are numerous choices.
- **Impact investing:** there is greater awareness of the power associated with where one chooses to spend one's money. Fintechs are recognising this: for example, some plant trees for a given amount spent on their card (Green Hero n.d.). Others have developed tools that calculate the associated carbon footprint to inform spending (Mastercard 2021).

To some these may seem like gimmicks, but they tap into the fact that finance permeates every aspect of our lives. This approach allows customers to make 'green' choices within daily activities, often without paying a premium for the privilege.

'µPledge is a crowdfunding solution that helps investors improve their financial wellness, while connecting them to verified ethical / sustainable start-ups. We believe that crowdfunding and crowd-financing need to evolve further to provide comfort and trust to the retail user experience. Comfort is accomplished by providing an improved user experience built upon gamification design principles; and trust is generated through verification of funding recipients using our proprietary AI-augmented diligence process'. **Andrew Chong**, Founder, µPledge

THE CULTURE IN A FINTECH FIRM CAN BE DIFFERENT FROM THAT OF A TRADITIONAL LARGE FINANCIAL SERVICES ORGANISATION. IT HAS ELEMENTS OF TECH INDUSTRY CULTURE WITH ITS MORE INFORMAL STYLE OF WORKING.



3. Job roles

There is a rich array of job roles for professional accountants in fintech.

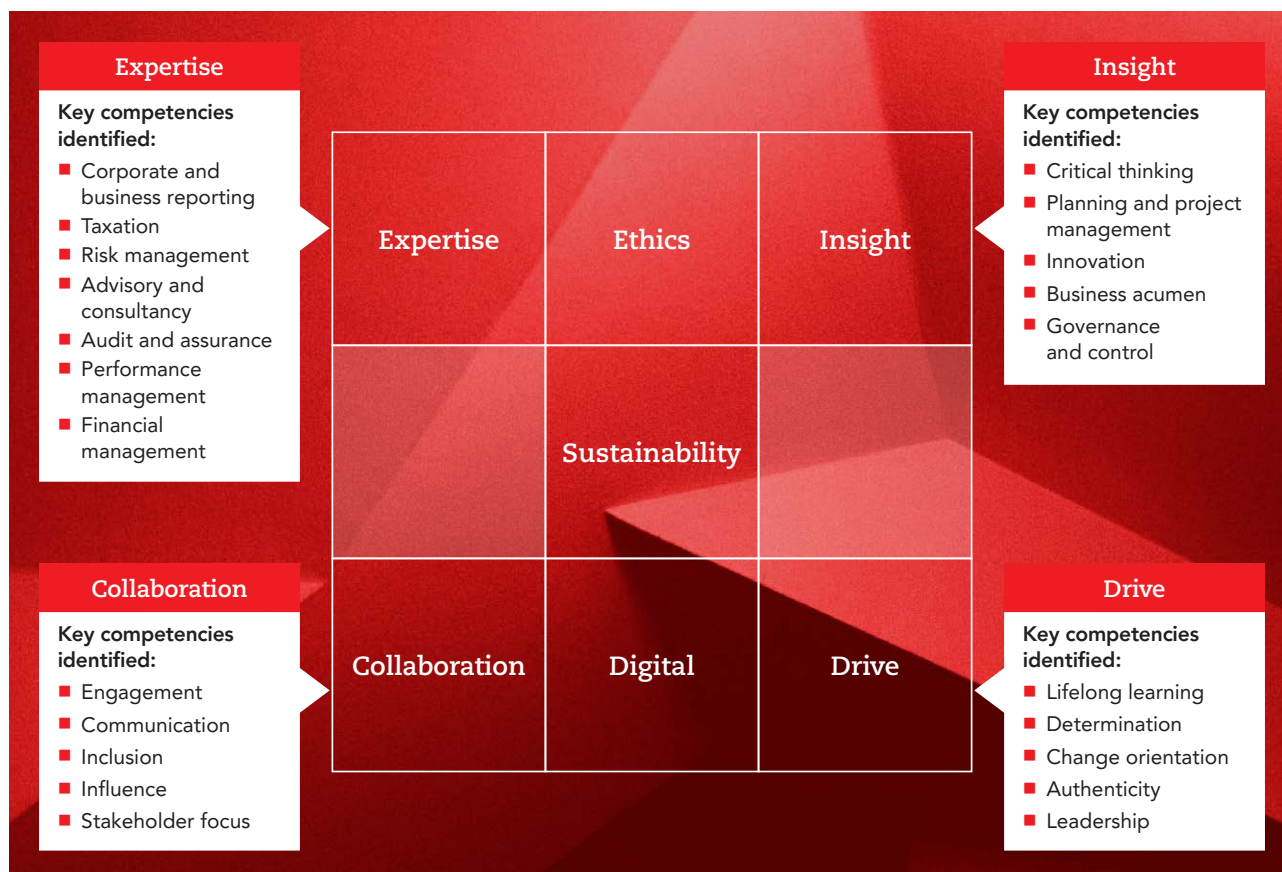
Competencies for success include:

- understanding emerging and evolving fintech business models
- commerciality and the ability to tell a compelling financial story to investors
- technical accounting for new areas such as cryptocurrencies
- a 'digital-first' mindset that can operate without voluminous paper trails
- ability to link business and finance needs to technology needs
- flexibility: the ability to change orientation to pivot as opportunities require
- an ethical mindset to ensure new technologies are responsibly deployed
- deep understanding of the processes that deliver a financial service.

To access opportunities in fintech, professional accountants will need to draw upon the balanced, broadly ranging set of skills across both technical and behavioural attributes

that are highlighted by the competency frameworks of ACCA (the ACCA career navigator, Figure 3.1) and CA ANZ (the CA ANZ Capability Model, Figure 3.2).

FIGURE 3.1: ACCA career navigator and core capabilities



Source: ACCA 2021

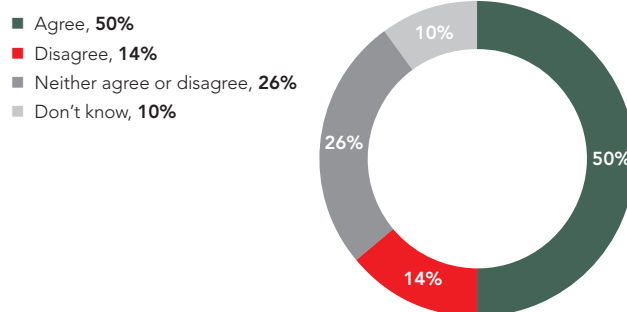
FIGURE 3.2: CA ANZ Capability Model


[^] These are the six non-technical capabilities considered essential for future employability of a professional accountant irrespective of their level of work, career stage, location or job role. The other non-technical capabilities while critical, will vary in importance according to the job role.

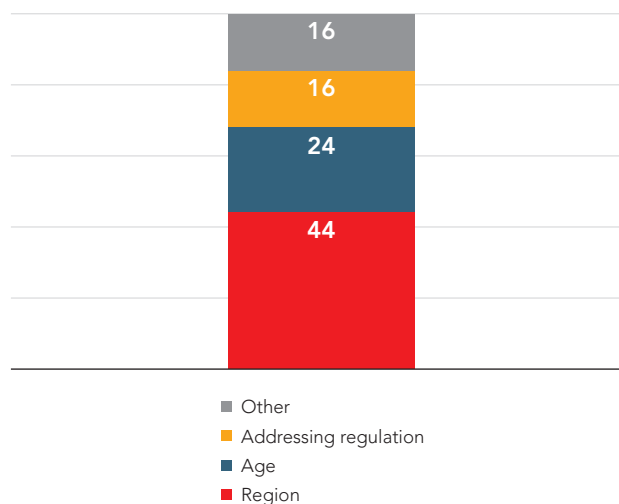
Source: CA ANZ 2020

Half the survey respondents (Figure 3.3) see career opportunities for themselves in fintech. Roughly a further quarter don't see career opportunities, but don't categorically disagree with the statement either, perhaps keeping open the possibility for the future.

As part of the analysis, we looked at seven contributing factors from across the dataset to assess the relative importance of what most heavily influenced how respondents saw career opportunities for themselves within fintech. The seven factors were the four fintech attitude model pillars: current adoption; trust perception; addressing regulation; and government support; as well as three demographic factors: age, region and sector.

FIGURE 3.3: I see career opportunities for myself in fintech


Data¹ analysis was used to assess their relative strength as drivers in perceptions of career opportunities. Three drivers accounted for 84% of perceptions of career opportunities in fintech: these were region, age and addressing regulation. Where a respondent is located accounts for 44% (Figure 3.4) of what the model tells us about how likely they are to see career opportunities for themselves in fintech. This was followed by age, accounting for 24%, and addressing regulation for 16%.

FIGURE 3.4: Relative strength of causal factors in perceiving career opportunities


BIGGEST DRIVERS FOR SEEING CAREER OPPORTUNITIES IN FINTECH ARE WHERE YOU LIVE (THOSE IN AFRICA, MIDDLE-EAST AND SOUTH ASIA IN DESCENDING ORDER SEE GREATEST OPPORTUNITY), HOW OLD YOU ARE (YOUNGER POPULATIONS SEE MORE OPPORTUNITY), AND HOW STRONGLY YOU FEEL REGULATION NEEDS TO BE ADDRESSED (THOSE WITH STRONGER VIEWS ALSO SEE MORE OPPORTUNITY).

¹ Regression analysis was used; this is a statistical method whereby a model is built to predict the value of a "dependent" (outcome) variable based on the values of "independent" (predictor) variables.

To bring the discussion around job opportunities to life, this section is anchored in the work experiences of ACCA and CA ANZ members connected to fintech. This information that follows should be treated as illustrative, rather than taken as universal or all-encompassing. Where a job role is described and a member's experience is noted alongside it, it doesn't necessarily mean that that job role defines the individual's work completely. It simply means that there are aspects of what they do that overlap with that job role. Similarly, where certain skills are identified, it doesn't mean that others are not required. A range of skills are relevant to career success, and the precise mix of these at a given time depends on factors such as career stage and the specifics of each person's working environment.

This section examines ten job roles relevant to professional accountants in fintech.

1. Chief financial officer (CFO)
2. Financial controller
3. Assurance provider (auditor)
4. Transformation lead
5. Digital accountant
6. Regulatory expert
7. Tax adviser
8. Fintech strategist
9. Entrepreneur
10. Senior manager

3.1 Chief financial officer (CFO)

PURPOSE: setting strategic direction and stewardship of financial resources and other assets such as IP

Skills valued in fintech:

- understanding how to link the numbers and strategy into a compelling story that investors would find attractive
- the ability to build a finance team and set professional norms, in the absence of mature processes and procedures.

Ewa Woroszył, CFO, Blue Media, Poland

I'm the Group CFO of a fintech in the payments space. We provide payment services for e-commerce retailers, instant/fast payments between banks and invoice issuers (eg telcos and energy), authorisation and ID verification services, and prepaid products, in cooperation with banks.

CFOs are usually among the early hires made by a fintech, to support its funding strategy. My role is to redesign the finance function to prepare the company for global growth. For attracting growth capital, one needs to demonstrate high levels of professionalism, and to be able to present audited data for performance claims, to be taken seriously.

CFOs play a key role in communicating the growth story with numbers. In this task, they need to build a finance team geared for success. As a base, a strong accounting team should be in place with an ability to produce quality financial statements, often based on International Financial Reporting Standards (IFRS). They also need a controller who understands the business and can provide high-quality scenario analysis for business decision makers. Finance business partners are key to helping the business navigate growth and perform profitability, and to producing viability assessments for projects. They may also seek analysts with mergers and acquisitions (M&A)/due diligence experience to support funding rounds. These individuals are data driven, strong in technology tools and can provide a defensible point of view in areas such as valuations. It can be tricky to find appropriate benchmarks for fintech operations so industry

awareness and business acumen are valued for all key roles in finance. An important related aspect is a clear understanding of revenue recognition, strategy and the associated financial model for the next three to five years.

There is also a space for CFOs with a process improvement mindset, as fintechs focus on growth and tend not to consider the support infrastructure/back office. Often, the CFO leads the approach in driving these efficiencies. Systems can be an issue in this context, with many using platforms developed in house. That can create complications for the finance team, such as a lack of proper documentation for systems and procedures, connecting the finance system to the front-office and getting reliable data feeds. These can be symptoms of a general need to tighten internal controls.

CFOs need an understanding of applicable regulations for the specific services the company performs. Regulations represent a cost that needs to be navigated as cost-effectively as possible. It needs coordination across the business, the commercial finance person, legal/compliance and the CFO.

A CFO in a fintech is likely to be very hands on, as business grows and changes at a very fast pace. This requires being open minded and outcome focused. It is not mandatory to come from financial services as there is a lot of new information to absorb no matter what the background – the ability to learn is more important. In some cases, exposure to the IT services industry can help when transitioning to fintech.

Ivelin Kamburov, Chief Financial Officer, Credissimo, Malta

Credissimo's core offering 15 years ago was online instant consumer lending, which it then supported with a mobile user-friendly interface, AI loan scoring and automated lending chatbots. Over the last 15 years, it's been constantly updating its offerings: eg e-commerce financing and direct utility-bill payments (several hundred merchants onboarded), vehicle finance and cards.

As CFO, I support growth across the spectrum from strategy development, setting up of management and reporting systems, cash flow, budgeting and forecasting, business planning and advisory, investor relations, analytical interpretation and application of IFRS and local generally accepted accounting practices (GAAPs), tax planning and advising, as well as business partnering and negotiation.

Performance management is important in my role, not just for effective reporting, but also for liquidity and funding to ensure cash-flow sustainability of the business. I consider new investment niches and new development opportunities for the business to expand abroad.

To support me in my role I rely on a skilful team, who have often joined after training in larger banks or accountancy practices. This is because fintechs, particularly in the early stages, can't offer structured training in house. Also, they're trying to disrupt existing incumbents, so people who've worked in a large bank have a sense of the status quo to be disrupted.

In addition, I value soft skills, such as a practical mindset for problem solving, and those who can interact with different teams internally and externally, as well as those who can navigate big data and complex databases, particularly to get different data sets to work together.

Andie Smith, Chief Financial Officer, Rbanx, Australia

Fintech is a rapidly developing industry with many new market entrants and a great deal of M&A activity. As a result, in my role I must maintain an entrepreneurial mindset, work with and across the business, and be agile. I also need to be prepared to change course quickly and pivot based on the needs of the business at that time. 'Agile' is an overused word now, but to serve a fintech business well, especially in the current environment, the finance director and their team must be agile. Technology plays a big role in this. I encourage my team to increase their skills in data and technology through a mixture of on-the-job learning, and by attending courses and workshops. There is great content available online which is either relatively inexpensive or free – this is an easy way of keeping skills updated. It is also a good way of gaining value while meeting continuing professional development requirements.

Other important aspects of my role include general talent oversight and management, supporting and partnering with the chief information officer (CIO) on technological transformations, and helping to steer the overall strategic direction of the firm by providing insights founded in data. Talent oversight and management are especially important in the current environment owing to the critical shortage of accountancy and finance professionals in Australia.

As well as overseeing the traditional functions of a CFO, such as financial planning and analysis (FP&A), investor relations, strategic planning and regulatory relations, I also partner with the rest of our executive team to identify and monetise revenue and growth opportunities. Our business is already quite lean, so there are not many opportunities to eliminate costs, even in the current inflationary environment. Instead, part of my role is to use my commercial skills to work with the CEO and identify how we can leverage technology to increase efficiencies and deliver a better service to our customers for a lower cost.

3.2 Financial controller

PURPOSE: ensuring that accounting, regulatory and financial information used and disclosed by the fintech is reliable and correct.

Skills valued in fintech:

- accounting and taxation treatment in new areas such as crypto assets
- strategic planning and decision support
- an ability to work nimbly while ensuring regulatory reporting deadlines are met

Faizan Jawed Akhtar, Financial Controller, CoinMENA, UAE

I am involved in all aspects of financial management and reporting at CoinMENA, a regulated digital asset exchange. On the one hand, this has involved internally focused work to establish the accounting function and integrate with the back-end for process automation. There were challenges initially in finding an enterprise resource plan (ERP) for recording cryptos that was multi-currency acceptable. We eventually settled on MS 365 Business Central, given its suitability for smaller finance teams (to us, MS Dynamics seemed better for a 20+ size finance team). There are also externally facing responsibilities such as regulatory reporting to the Central Bank of Bahrain for audited quarterly statements, liquidity statements, and KYC conducted when onboarding customers.

Other responsibilities include supervising a team, who support with tasks such as reconciling between fiat, crypto, debit and credit card positions, and managing the tight turnaround cycles for reporting as venture capital (VC) investors require financials soon after month end. The finance department is seen as an objective source of truth on what the numbers are saying, which makes the accountant an important stakeholder in conveying information to VCs and other investors. This requires being adept at making presentation decks explaining the key performance indicators (KPIs) of the company, and progress against them.

Standards are still evolving on how to record crypto assets. To some extent, past precedents provide a benchmark – such as the approach taken by Coinbase, which was the first to list on NASDAQ, thereby making financials public and externally audited. At a regulated crypto exchange,

depending on their intended use, cryptos may be recorded as inventory as per IAS 2 (when held for trading), financial instruments as per IFRS 9 at fair value through profit or loss (when held for investment) or as an off-balance sheet item netting off assets and liabilities (when held in custody). There are other considerations, such as uncertainty as to whether stablecoins such as Tether ('USDT') should be recorded as cash/cash equivalent, because Tether claims to be backed by US dollars, or as a financial instrument.

Currently, any knowledge of cryptos is a differentiator when seeking roles in this environment, owing to the early-stage nature of this industry. Some have compared crypto today to the internet in 1997. Organisations may be open to candidates with a credible, demonstrable interest in this space whom they can mould, even if the exact technical expertise in crypto accounting and reporting is still being developed. It's important, however, to be honest and recognise that this is a complex, high-risk space and there is a lot to be learned in the years to come as the industry matures.

Working in a fintech environment requires flexibility. Finance professionals who thrive here tend to be those who respond to a problem that needs to be addressed, rather than being fixated about whether it falls exactly within their job description.

Digital skills are very important. An interest in areas such as coding and smart contracts (blockchain technology) can have applications here, as does a broader competence in IT skills such as business planning software, business intelligence/big data analysis and data visualisation.

3.3 Assurance provider (auditor)

PURPOSE: independent assessment of whether financial and other information provided by the fintech can be trusted. Audited numbers are important for fintechs seeking scale-up/growth capital.

Skills valued in fintech:

- ability to operate in a digital-first (or digital-only) environment where a lot of the evidence provided by the entity is held in systems without associated paper trails
- having clarity on the business model – ability to look in from the outside is particularly needed when assessing going concern risks for emerging business models.

Lum Kar Hoe, fintech auditor, Malaysia

I audited one of the largest e-money issuers in Malaysia. E-money is an alternative to paying by cash or card and is supported by an electronic wallet ecosystem. Payment is made via app, with benefits such as gamification (points/rewards with spending) and a seamless process. A QR code is scanned instead of entering card details into a point-of-sale (PoS) device. For merchants, a PoS is expensive; with e-money, they register with the issuer and receive a QR code to display at their counter. The customer simply downloads the e-money app and scans the QR code. They transfer money to the app from their bank account and use this to pay the merchant within the e-money app. The merchant doesn't need to deal with cash or card. With the latter, they'd typically face a 1% charge; with an e-wallet the charges are lower and sometimes waived to increase retail participation. In fact, the merchant may receive freebies in some instances, given the competitive nature of the fintech space. For example, if a user spends above a threshold amount with the merchant, the latter may earn some rewards or rebates from the e-money issuer. During Covid-19, gross transaction values of e-money increased significantly as people moved away from handling cash.

In auditing this e-money issuer there wasn't the usual reliance on a paper trail, rather the focus was on the client data base. This provided a record of all the money going in and out of the wallets and was available to the auditor as a downloadable spreadsheet from the system with near real-time information.

The auditor therefore needs to understand how to conduct tests when they don't have the usual paper trail to which they may be accustomed. Typically, transactions or processes would be traced through several departments in an organisation. Here, transactions are instead processed through several applications and databases with less human intervention. To enable that, fintech companies employ a lot of robotic process automation (RPA) as their transactions and the business move quickly; and they're using and modifying RPA scripts in real time. An auditor now requires an understanding of how systems behave and how data flows from one system to another, and of the interrelation with the accounting systems.

All this represents a change in how work is done and documented. In the past, it was typical to pick, say, 20 samples and document; now with RPA the audit team can come up with a script to test one million rows or indeed the entire population. In the past, accountants copied information from the bank statements to compare with what was in other systems, using the spreadsheet to do control checks – often taking a day to complete. RPA does this work in minutes. This is all chiefly made possible because in a fintech everything is held in digital form, unlike previously when clients held a lot of information on paper. Meanwhile, for an auditor, understanding these scripts and using them for audit-testing purposes will increase the effectiveness of the audit. In future, auditing information in its digital form will no longer be an advantage but a necessity as well as an expectation.

Assurance of fintech organisations represents a career opportunity for accountants as it is the pillar in the fintech story that influences trust. Consumer trust in fintech products and services, and the related adoption, will be higher when they know that the providers have been audited. To reinforce this, many fintech companies are often regulated in some way, especially if they are involved in providing financial services to the public at large.

Finally, assurance extends beyond financial assurance. Other branches of assurance, such as technology risk assurance, can also play a role in assessing whether there are significant risks to consider, such as cybersecurity threats, fatal-flaw issues in a data business, or whether there are appropriate user safeguards. Regarding the latter, a lack of proper safeguards could result in an e-money user being hacked/compromised, whether that's the user's fault or a vulnerability in the system. In the end, trust in the fintech organisation will get eroded in such circumstances.

For auditing businesses that are digital-by-default a good understanding of the business model is essential. It will also be important for accountants to update themselves on the latest industry developments as well as tools used, whether intelligent next-gen ERP, data analytics or data visualisation. These tools enable accountants to excel at explaining data at board level; and be agile in flicking across messages. For example, various tools today allow instant visualisation of information as simply as moving

a slider to visualise profit changes in real time, without needing another meeting after crunching the numbers for various alternative scenarios.

Accountants should engage with the world inhabited by the fintech. When references are made to data 'being fed through STP [straight-through processing]' or 'going via an API [application programming interface]', the accountants don't need to be experts, but do need to understand the

jargon and its implications (ie a citizen developer). Further to the previous reference to RPA, accountants need logical thinking because a lot of what one is looking at is code-driven automated outputs and coding is all about logical rules: how to come up with precise, yet concise, instructions that can be repeated if the correct parameters are used in the first place. A basic understanding of coding can therefore be advantageous as well, looking ahead.



3.4 Transformation lead

PURPOSE: leading the migration to digitalised finance workflows that leverage the latest technology, drive efficiency and are compliant with applicable regulations.

Skills valued in fintech:

- ability to form a bridge between IT and finance, effectively translating the language used by accountants and the language of product functionality and design choices so that both parties understand each other
- ability to embrace change; having a practical problem-solving approach that can find a pathway from current to target state.

Omar Shariff, Senior Functional Consultant, Kyriba, UK

I lead the adoption of a software-as-a-service (SaaS)-based treasury management system. Treasury software needs to line up with accounting systems, which involves sending data to the ERP system and receiving data back from it. The software is used for tasks such as: integrating bank statements (clients have hundreds of bank accounts globally), daily statements, cash management reporting, in-house banking to move currency between accounts, journals between treasury systems and ERPs, payments (eg salaries, suppliers), debt covenants, up-to-date liquidity positions and cash-flow forecasting.

This is Cloud software, which is an expense rather than asset for the client purchasing it. Whether the data is owned by the service provider or client depends on the contract signed. Some clients host data on their site for regulatory reasons, or for the relationship with their end customer. Others, often for cost effectiveness, hold the data in the server of the service provider with access to it as needed. The data is held in compliance with quality management standards such as ISOs (ie standards set by the International Organization for Standardization). In my role, managing expectations is important – to do this with integrity and to avoid making promises to please everyone. This particularly matters when balancing expectations between finance and IT, which is an area tested by recruiters. IT may provide all the data, but accountants want it filtered to give them what is needed; presentation of data matters a lot to the accountant. The raw data dump needs to be cleansed, manipulated and linked with nominal codes, and the accountants need an understanding of how data feeds into the reporting. So, accountants need an informed view of how raw data should be captured in the first place, as this influences how it will be used, tagged and transformed once received.

For systems consultants, project management is essential, with often multiple projects or workstreams needing attention simultaneously. Business analysis is valued as well and includes competencies such as understanding how the business functions, how business processes support that functioning, end-to-end

mapping of the business process, future proofing said processes, together with an automation roadmap backed by robust requirements gathering, and a clear view of the pain-points to be addressed by the system. Communication is also vital to ensure that the organisation perceives the value it obtains from this role, eg by running training modules for staff, and responding with quick, intuitive value-adding solutions that are good enough, even if not perfect.

Tina Franklin, Implementation Partner, Pello, UK

I drive finance digital transformation, particularly for wealth management companies, with expertise across finance migrations, client accounting, operations and billing. This involves an understanding of industry specialist tools such as Microsoft Dynamics platform (net asset value (NAV) and Business Central) and TrustQuay – NavOne and LemonEdge. The need for my role comes from wealth management companies' requirement for guidance on best practice when setting up an accounting system, its maintenance and how to future proof their product purchase.

Common components in a digital transformation/migration are usually optimisation of processes, leveraging the product functionality and increasing automation of repetitive low-level tasks. Companies want their tech to work for them and to augment their teams, thereby optimising resources. Historically though, that hasn't been the case owing to many legacy systems that have prevented adoption of the latest functionality.

Digital transformation in wealthtech is closely linked to developments in regulation. For example, high-net-worth individuals can have assets across jurisdictions. A modern ERP system could look at a single record for an individual alongside required government submissions such as the Foreign Account Tax Compliance Act (FATCA) in the US and Corporate Reporting Standard (CRS) in the UK. This makes it a powerful tool, allowing a business to be confident that what it is reporting as an organisation is the full truth. In a siloed legacy system, many more people would be needed to generate the same information and it would be much more prone to error. Regulation has

caused a shift in the way accountants need to record information, so they need to understand the technology they are using to be confident in what's being produced.

Accountants coming into fintech on digital transformation programmes need a broad understanding across operational and finance aspects, avoiding siloed mindsets that think a finance person only looks at financials. It isn't just about numbers anymore – with the huge volume of

data available entire areas of business can be measured. Tellingly, financial controllers are increasingly taking an active role in the technology roadmaps of the companies where they work.

My role is fundamentally about helping organisations to absorb change. The accountants who thrive in this type of work are tenacious and dynamic with the ability to find creative, workaround solutions for problems as they arise.



3.5 Digital accountant

PURPOSE: leverage tools and smart digitised approaches to provide a range of accountancy services, from bookkeeping, tax, payroll and expenses, to strategic, financial and data-driven insight.

Skills valued in fintech:

- a keen interest in technology developments pertinent to accountancy, and a considered, intentional approach to leveraging them for service improvement

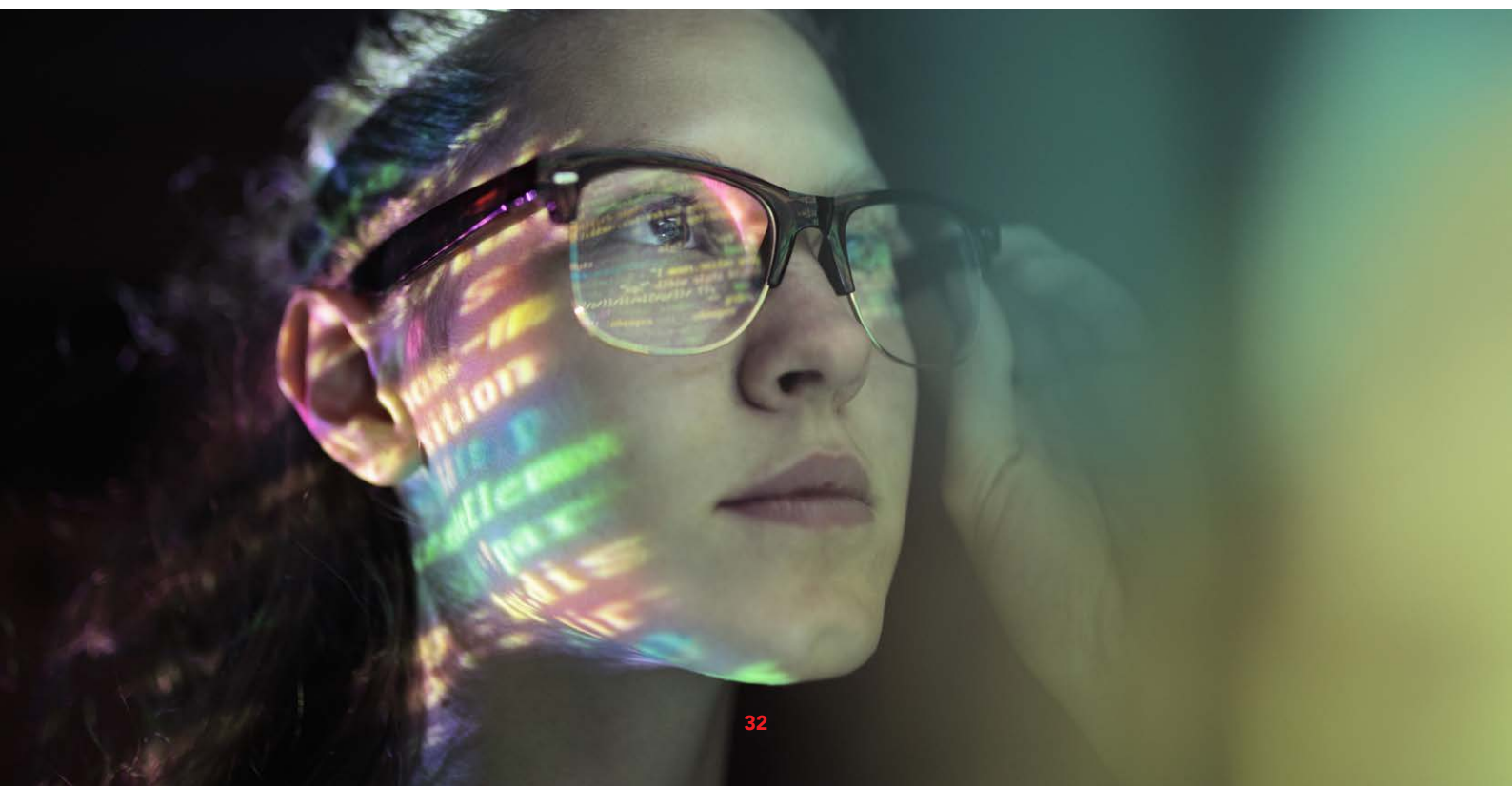
Alex Falcon-Huerta, CEO and Founder, Soaring Falcon Accountancy, UK

We are an accountancy practice that focuses on a digital-first approach to adding value, whether by migrating clients to Cloud-based applications or leveraging AI for purposes such as invoice processing. Clients tend to be in fintech, SaaS businesses, technology start-ups or in the creative industries. We rely on an evolving stack of about 50 apps to help our clients grow and to automate their back office.

Through this, a wide spectrum of services are provided, such as bookkeeping, expenses and payroll, taxes, preparing information for auditor review, process documentation, banking and payments support, fundraising, arranging audits for growth, performance management, cash-flow forecasting and data insights, workforce management (eg scheduling, messaging, collaboration tools), contract management, or even end-to-end setup of an in-house finance team. At the heart, our purpose is to migrate clients to becoming fully/significantly online businesses, particularly for back-office workflows.

My role is closely linked to understanding the needs of our clients, which in areas such as fintech can change fast as their business grows or the industry evolves, and then to translate this to our own strategy and delivery approach to ensure we're constantly updating ourselves to meet market needs. For example, the Covid-19 pandemic has demonstrated that a variety of roles provide the ability to work from anywhere in the world. As a result, I'm also incorporating some outsourced accountancy services with high-quality talent at an affordable price, where this makes sense.

The world today expects its professional accountants to be digital-friendly. This both enhances workflows through intelligent automation and frees up time to contribute towards more high-value tasks that improve understanding of the client's needs or translate to advisory services. When servicing clients in fintech, stakeholders expect a level of affinity with technology. In this environment, accountancy firms that operate highly manual processes, generate significant offline dependencies and come across as generally uncomfortable with digitisation will fail to win the confidence of stakeholders.



3.6 Regulatory expert

PURPOSE: guiding organisations in their fintech journey to operate in compliance with applicable regulations through an understanding of current requirements and future direction-of-travel.

Skills valued in fintech:

- industry, product and business-model knowledge, and ability to connect these with what the regulations require
- an ethical mindset that is anchored in compliance in spirit and letter, and in the interests of driving long-term value.

Nathan Catania, Partner, XReg Consulting, UK

I spent a significant part of my career as an auditor at PricewaterhouseCoopers (PwC) in Gibraltar. Having discovered cryptoassets during early 2017, right before Bitcoin and initial coin offerings (ICOs) boomed, I became passionate about the industry, initially on a personal level and later a professional level. Gibraltar, as a small and nimble jurisdiction, pioneered the first bespoke national regulatory framework for crypto businesses. This innovative regime resulted in several high-profile blockchain businesses choosing Gibraltar as a base and I then joined the Gibraltar Financial Services Commission (GFSC).

Obtaining a background in audit and assurance was an excellent foundation for my career in regulation. The ability to independently assess compliance with standards in both external and internal audits translate excellently to the role of a regulator.

I am now a partner at a regulatory consulting company that specialises in crypto assets, with both public and private sector clients. We work with government policymakers, regulatory authorities, and law enforcement agencies. Our focus is assisting policymakers and regulators on overall policy and strategic goals with regard to cryptoassets, and devising appropriate regulatory regimes for their jurisdictions.

For private sector clients, our work ranges from policy and strategy work to designing and implementing detailed policies and procedures. Critical thinking is necessary to determine whether a system or process is compliant with a regulatory requirement, and audit skills are particularly useful when performing independent compliance audits and gap analysis against regulatory requirements.

A detailed technical understanding of relevant aspects of the crypto-assets industry is important. This includes specialised knowledge of the benefits, risks and global regulatory approaches, as well as key trends such as NFTs, DeFi, and the metaverse.

Mindset is a key factor when consulting in a fast-moving industry – having a passion for learning helps one to keep abreast of the regulatory developments in the crypto industry globally. Being able to ‘think outside the box’ and adapt to various situations is also key, as it is not unusual to encounter an issue that doesn’t have a precedent, or

that has at least never been encountered before by the organisation or jurisdiction concerned. The appetite for ‘breaking new ground’ is important.

I’d further highlight the importance of ethics. When dealing with crypto assets, objectivity is important in order to balance the potential benefits of new technology with the need for consumer protection and the stability of the financial system. A progressive approach to regulation allows for innovation to thrive alongside these considerations.

Stacey English, Director of Market Intelligence, Theta Lake, UK

Theta Lake provides patented compliance and security for modern collaboration platforms such as Microsoft Teams, Webex by Cisco and Zoom, which have become integral to workplaces since the shift to hybrid working. In addition to comprehensive capture and archiving, Theta Lake uses AI to detect and surface regulatory, privacy, and security risks in a review workflow, across what is shared, shown, spoken and typed. It thus enables organisations to use communication platforms safely, compliantly and cost-effectively.

I come from a background in regulation, as both a regulator and a risk, compliance, and audit practitioner, so I have a deep understanding of the data security, supervision and record-keeping rules that firms are required to meet. From MiFID 2 (the second Markets in Financial Instruments Directive) and the General Data Privacy Regulations (GDPR) to the UK Financial Conduct Authority (FCA) and the US Financial Industry Regulatory Authority (FINRA) rules, a practical understanding of customers’ obligations helps ensure our technology continues to reduce the cost of security and the risk of non-compliance.

Collaboration tools have become the primary way of communicating and sharing information, which has created huge challenges in capturing records, supervising conduct, and protecting data. For example, these challenges include identifying collusion across platforms, data loss from sharing the wrong screen, or trying to recreate chat conversations laden with images, emojis and reactions to understand the context.

A key part of my role is providing insight and intelligence on evolving regulatory expectations and industry challenges, to help customers meet obligations and

benefit from technology to resolve risks or blind spots. From industry surveys and white papers to speaking on panels with regulators, being able to both analyse and anticipate regulatory requirements and market trends; and to communicate them clearly to both technical and non-technical audiences are core skills to have.

Our automated risk detections across video, voice, chat and documentary sources are driven by AI (machine learning and natural language processing), enabling organisations to supervise huge volumes of communication, which would otherwise outstrip the capacity of internal teams. Therefore, understanding and being able to describe how AI works is important, from ‘explainability’ to the significant advantages of purpose-built classifiers.

Practical knowledge of the technology landscape within organisations is helpful too, as integration is a key driver for adopting regtech. We use over 40 frictionless partner integrations, are certified by partners such as Microsoft, and integrate with multiple, archiving and e-discovery tools, which ensures there’s no disruption to the customer’s existing tools or processes. Domain expertise in areas including data governance, data privacy

and security are critical. Organisations need to capture and quickly identify records for audits, investigations, handling complaints or data privacy requests, as well as to provide accurate, comprehensive records for increasingly data-driven regulators. Fintechs and regtechs themselves must meet stringent standards of security, whether for regulatory licences or customer acquisition and growth. For example, Theta Lake’s SOC 2, Type 2-audited platform deploys industry-leading controls to protect the security, confidentiality, and availability of information stored on the platform.

Having a global perspective is also essential, given the volume and complexity of regulatory requirements around the world. My background in developing Thomson Reuters’ Regulatory Intelligence and my role as Honorary Fellow at the Cambridge Centre for Alternative Finance helps in understanding regulatory nuances. Its Regulatory Genome Project is using machine learning to sequence the world’s financial regulation and build a repository of regulatory content in machine-readable form, which would otherwise be manually captured on Excel spreadsheets – another great example of overcoming inefficient manual processes through technology.



3.7 Tax adviser

PURPOSE: applying deep regulatory knowledge, an analytical mindset and attention to detail to address financial and regulatory risk arising on business activity and transactions.

Skills valued in fintech:

- knowing how to satisfy regulatory requirements and negotiate optimal business outcomes
- an ability to manage risk without stifling business activities or innovation
- a commercially focused mindset that is anchored in compliance.

Craig Parker, General Manager, Tax, Ebiz, Australia

I have worked in tax all my career. I started out in the tax consulting arm of a Big Four Australian professional services firm, where I worked across a variety of clients and a range of industries and jurisdictions. My first exposure to fintech was working in banking in the UK. The fintech industry was then in its infancy, with start-ups emerging and established banks just beginning to experiment with innovative technologies. Open data had not yet been considered, yet alone mandated, leaving established banks with a lot of power.

Fast forward 15 years, and open data is now a reality, enabling fintechs such as Ebiz to provide customers with innovative products and solutions.

My role essentially focuses on managing all aspects of tax risk for Ebiz. This is achieved through setting Ebiz's organisational tax strategy and its operational deployment across all parts of the business. This starts with accurate and on-time compliance with all applicable tax laws. Tax laws are always changing and more recently increasing. This means tax is usually the biggest consumer of business data in any organisation. Ebiz is no exception. When coupled with governments' increased focus on tax governance, this also requires a continual emphasis on technological tools. Technology not only increases efficiencies across our tax compliance activities, but also provides data that delivers valuable business insights and trends while also allowing the transparency necessary to satisfy both internal and external stakeholder demands.

Because almost every business action has a tax reflex, outside formal tax compliance activities I play a trusted adviser role across all types of transactional work. This could be anything from supplier/customer contract reviews or implementing employee share schemes through to M&A activities. This requires agility in the true sense of the word as no two days in my role are the same. In the morning I could be reviewing a tax return, and by the afternoon advising on the correct structure for an M&A transaction.

A tax professional working in fintech operates at the intersection of finance, law and technology. This requires a broad skill set that is constantly evolving. In addition to core technical tax skills, my role requires skills in data and technology. An ability to think critically is essential.

Stakeholder engagement is another important aspect of my role. From contributing to the development of tax policy with revenue authorities through to providing input on financial reporting ESG developments from a tax transparency perspective. This requires well-developed human skills, including an ability to communicate clearly and turn data into insights.

Chris Barnard, Crypto tax expert, Accounts & Legal, UK

I specialise in helping fast-growing businesses get a grip on their accounting, tax and financial processes. It can be a minefield, with an endless count of buzzwords and acronyms. I help drive efficiencies and business performance through the latest software, and face-to-face proactive support.

Crypto tax can be a client opportunity for accountants. There are lots of different applications of crypto and blockchain. It's not just crypto investors who hold and/or trade these digital assets. Any client could potentially get involved in crypto, meaning every firm should have some understanding of this area, and not being able to provide even basic information could mean losing clients. Knowing the basics and then having experts available will help deliver a great service.

The main role is speaking with clients, either face to face via video call, explaining the rules, asking questions, and collecting information. This is followed by using and understanding how the crypto tax software works (we use Koinly). This collects crypto data across multiple client exchanges and wallets, into a single place. This task is to show clients how to upload data into Koinly, and then check the data for errors. These errors include missing purchases of crypto tokens, and I then need to ask clients about this. We need this information to ensure the cost bases are correct for each disposal.

Once the errors have disappeared, it is important to review all the disposals, starting with the ones with the largest profits. Koinly produces a tax report which doesn't do all the capital gain calculations. The job is to review this and check that the cost bases and pools are correct. This is vital so that calculated profits for each disposal are correct. Once this is done, all the information must be

put on the client's self-assessment. The rest of the role to about keeping up to date with HMRC tax guidance and keeping updated with crypto news in general.

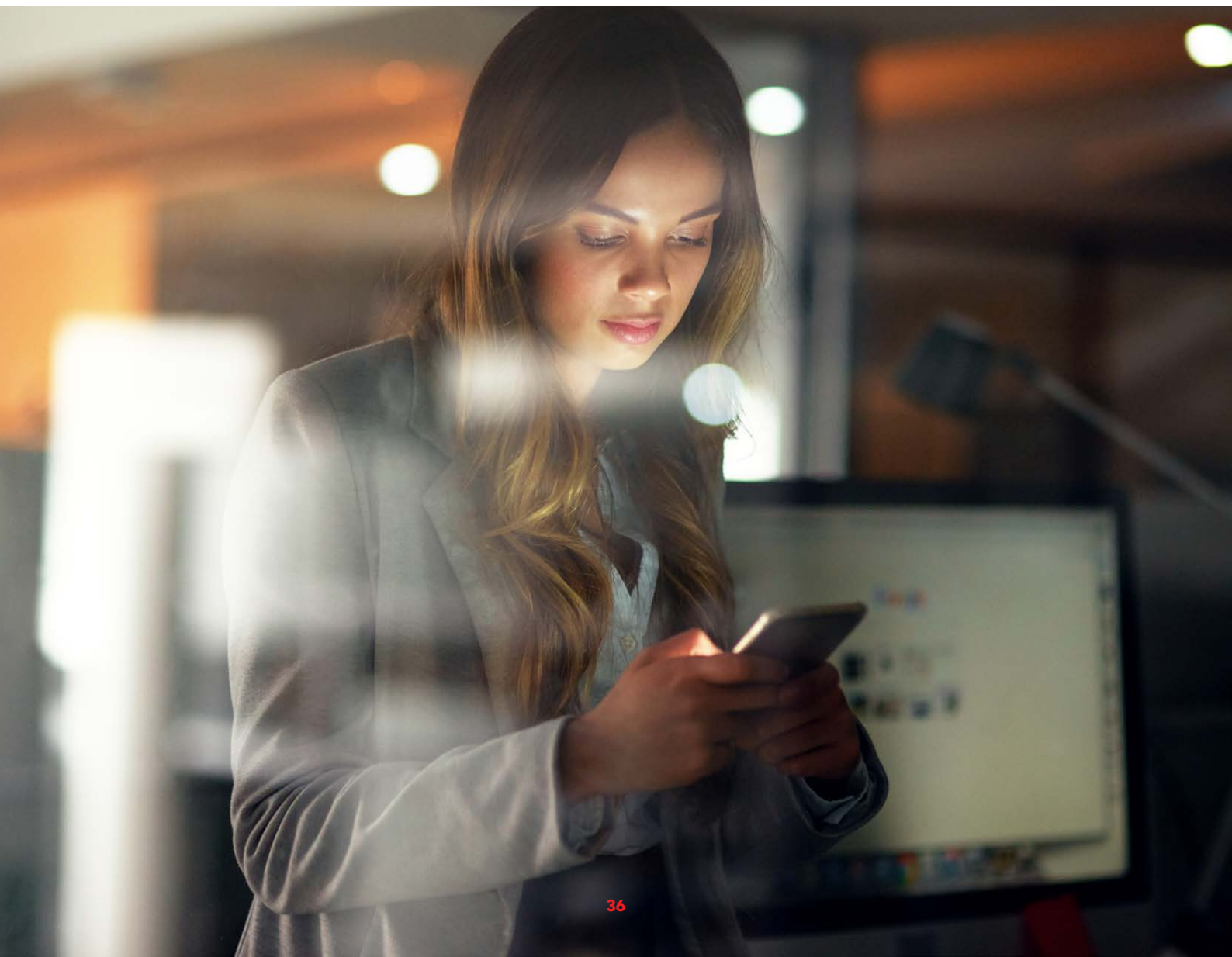
It is important to understand HMRC guidance about whether a crypto trader is a business or investor and how capital calculations work. HMRC may decide to treat the client as a business rather than an individual investor if the activity level is comparable to that of a company. HMRC determines whether your crypto is an investment or you qualify as a crypto trader. This may depend on several factors such as:

- the number and frequency of transactions
- the organisation
- risk
- commerciality
- the time you devote to the activity
- the length of time you hold instruments – bought/sold in minutes or retained for longer.

If classed as an individual and holding cryptocurrency as an investment, the client may be liable to pay capital gains tax upon disposal. 'Disposal' as defined by HMRC may refer to:

- selling crypto assets for money
- exchanging crypto assets for a different type of crypto asset
- using crypto assets to pay for goods or services
- giving away crypto assets to another person.

Naturally, the amount of capital gains will be the difference between the sales proceeds from the disposal and the crypto asset's acquisition cost – in other words, the sale price minus the purchase price. Good analytical skills and an eye for detail, as you're going through so much information, is useful: some clients have 20,000 trades a year so an ability, learned over time, to spot errors helps.



3.8 Fintech strategist

PURPOSE: combining forward-thinking analysis with deep sector knowledge to articulate choices for the way ahead, understanding the implications of various options and how to achieve a chosen outcome.

Skills valued in fintech:

- ability to build a compelling business case that can be used to monetise fintech systems; clarity on how competitive advantage is being created
- ability to manage relationships across different parts of the organisation to 'connect the dots', deal with pushback and solve problems creatively.

Lucia Okafor, Payments and Digital Transformation, Strategy&, South Africa

I provide strategy development and implementation advisory services in relation to digital payments. Typical projects include supporting the Central Bank of Nigeria on the development, launch and operations of its CBDC 'eNaira'; and supporting South Africa in designing its digital identity programme.

In my role, understanding the business case for new products and services is critical. This is linked to business acumen about how to monetise technologies. For example, PoS terminals in Nigeria typically involve the acquiring bank in buying these and giving them away to merchants at no charge to acquire transactions, which is very expensive. So the improved business case here rested on covenants for merchants to hold the funds from transactions in their accounts for a few days so the PoS owner can earn interest income on this.

An ability to design business models and scalable platforms informed by an understanding of the user and the service providers is needed – particularly the nature of the pain-point being addressed. In the case of the eNaira CBDC for example, the transfer of funds from people in cities to those in villages in a safe, cost-effective way is an area of interest, as is the issue of lower denominations of cash being expensive to print. Having fewer intermediaries with a blockchain-based back-end also creates fewer failure points. So the model is trying to solve specific problems and improve financial inclusion by being a medium of exchange rather than a store of value like Bitcoin/cryptos.

Introducing change also requires the ability to influence effectively. For example, when the bank introduced a mobile app, managing internal discussions between the digital banking team and the wider retail banking division were critical. The app involves design-thinking aspects, process improvements, a user-friendly interface, etc; so digital banking used process knowledge, data, promotion strategies and revenue modelling among others, and it was important to explain to stakeholders that 'digital' wasn't just 'IT' provision. And the allocation of costs and revenues internally to the digital team should reflect this.

Valuation for technology assets can also be an important area for accountants to engage with. This needs to build on the traditional view of buying technology, and simply amortising it for a number of years. In digital businesses, there is much more of an expectation of having a view of how the technology is helping to make or save money.

I would also note research and lifelong learning capabilities, as this type of work benefits from curiosity and a wide knowledge of what is happening globally. The role for finance can't come after the fact, it needs to have a voice in areas such as [a] the strategic case – should we do this? [b] The business case – can we monetise doing this? And [c] digital transformation – how do we do this?

Dafne Dimitrova, Group Digital and Fintech strategy, UniCredit, Italy

My role involves developing digital strategy (hand in hand with group strategic pillars) and bringing opportunities for UniCredit to tailor seamless products for clients that go beyond traditional banking services – leveraging data, technology, and external developments by fintech and bigtech players.

In a nutshell, this is about helping a large pan-European financial services organisation to navigate technology, design digital products and accelerate transformation. The important aspect of this transformation journey lies in connecting the bank with other ecosystem participants in the tech community and jointly serving our corporate and retail clients through their activities.

As a qualified accountant in the digital and fintech team, I rely on my analytical and structured approach, which is critical in this fast-paced innovative environment. Those characteristics are crucial for maintaining the direction of the development team. This requires being agile while still staying focused on overarching strategic objectives. Moreover, guiding the team through the product development also requires rigorous analytical skills for business value analysis/quantification and definition of the business case.

Another area where I rely on my training as a professional accountant in supporting technological development is performance measurement. This involves testing applications and deciding on 'go'/'no-go' with respect to a concept. In this regard, the ability to define non-financial KPIs and to develop an effective monitoring process is crucial.

This informs whether there is value creation and if so, whether testing could be scaled and converted to a 'live' digital product. These KPIs vary depending on the solution being developed and are not standard across initiatives,

unlike traditional financial KPIs, which are quite well aligned across business units. When setting non-financial KPIs it is important to create a link with financial analysis and bank targets via areas such as revenue uplift, costs savings or improved risk management.

As an example, digital non-financial KPIs could estimate customer satisfaction and user experience, with measures such as number of clicks to complete activity, minutes to perform a process, decrease in manual activities, etc. These can then be used to translate into financial value estimates.



3.9 Entrepreneur

PURPOSE: initial setting-up, leadership and end-to-end ownership of all aspects of the organisation's role in delivering fintech products and services.

Skills valued in fintech:

- a passion for the organisational mission and defining values, combined with determination and tenacity to deal with setbacks
- having a strategic, big-picture view of the customer's pain-point, and a technology, people and process view of how the organisation deals with it.

Tommy Laupsa, CEO, Calculum, US and Bahrain

Calculus is a fintech platform that allows organisations to compare themselves with their competitors. Because the web-based platform leverages artificial intelligence, companies can analyse all their suppliers on payment terms, financials, sustainability/ES, and can find arguments with which to negotiate more favourable terms with them.

Fintech has opened new roles and widened the role of those who trained as professional accountants. There is a base of technical accounting, but also the opportunity to align oneself to business models and missions that one relates to and to get the story out there in a meaningful way.

analytics to identify skills gaps and to support people who need to switch careers.

Entrepreneurialism is hard-coded into my DNA as my ancestors owned businesses for generations. I'm a strong believer in the role of creativity and a clear strategy in driving business value. It's also important to start bottom-up and understand how an organisation functions – something where a strong accountancy base can really help. It gives a clear picture of the relationship between money and operations. As a business owner, I also think it's essential to know how to pitch what you stand for without 'hard selling'.

Mark Ho, Co-founder, and CEO, ProMEX, China

ProMEX is a fintech firm operating a digital marketplace for physical commodities, and providing users, resellers and traders with a transparent, fair, and efficient trading platform governed by established standards for global markets. It is the first regulated marketplace for commodities in its region where buyers and sellers interact on a central order book and trade directly as peers.

I started from a traditional role in audit before moving to a futures exchange as head of compliance, where I learned about the futures market for the first time before becoming an independent consultant to set up two futures exchanges in Thailand; then worked at securities firms and learned about developing new products, and at a new regulated commodity futures exchange in Asia. There have been several challenges and changes of direction but the drive to create something new remains as strong as ever.

Igor Tesinsky, Co-founder and CEO, IntelliBonds Ltd, UK

IntelliBonds is an AI-augmented platform delivering improved investment returns and cost optimisation to fixed-income investors. We use company fundamental data, bond pricing data, market news and more, to forecast earnings, predict credit-risk changes and generate trade ideas at the issuer and security level.

Being effective at connecting business knowledge with technological knowledge really helps. You need the former to really understand the problem, and the latter to really understand the solution. Ultimately, as an entrepreneur, you're trying to take the discussion forward to the next stage. For example, credit risk has moved from linking to the past (via financial statements) to forward-looking algorithms that forecast one year of key line items from financial statements and allow for real-time collaboration between the user and an algorithm.

Lilia Stoyanov, CEO, Transformify, UK

Transformify revolutionises the way companies of all sizes hire, manage and pay remote teams, contingent workforce, and freelancers. Clearly, in a world affected by Covid-19, such services are relevant to add flexibility and extract value from operations. We're a member of the Digital Skills & Jobs Coalition of the European Commission (see Pledgeviewer 2020) and use predictive

Miten Amin, Co-founder, President VendEx Solutions, Inc.

VendEx is an SaaS marketplace platform enabling financial institutions that consume market data to interact with fintechs and vendors that originate data and analytics services. The platform optimises fintech and vendor spend, use, invoicing, due diligence, and onboarding. It also manages data governance on fintech and vendor contracts including data use rights, provides insights into

fintech and vendor products services via a global directory (including ESG data), matches regulatory requirements with fintech and vendor services and appends unique identifiers for invoice matching and inventory audits.

As co-founder I have a broad range of responsibilities, including managing the strategic direction of the company and financials. I tend to focus particularly on factors that affect the numbers whether they be the

accounting aspects, tax filings or indeed operational and cost considerations. My co-founder has more of a focus on areas such as product and business development. Forecasting is a critical area that I also tend to lead on as this directly affects how we're positioning ourselves to investors. I also think a lot about talent, as we are a growing organisation, and the importance of ensuring that the story of where we're headed is clear and exciting to our people.



3.10 Senior manager

PURPOSE: bringing well-rounded management capabilities to drive high-performing teams and organisations.

Skills valued in fintech:

- having a passion for the organisational mission and a desire to bring the best out of the people tasked with achieving it
- a deep understanding of end-to-end operations and how they link to creating value for stakeholders.

Rachel Cowan, Head of Operations, Ozow, South Africa

Ozow enables customers to make secure payments through automated bank-to-bank transfers, driving financial and digital inclusion. Merchants can enable Ozow through different platforms, such as SMS, e-commerce websites, QR codes and in-store PoS. Ozow is committed to financial inclusion – in South Africa (SA) for every eight people, seven have a bank account but only one has access to debit/credit cards. Most of the SA population are unable to transact beyond cash, and Ozow's payment platform has given users the opportunity to transact digitally. Ozow charges merchants (who now have a new channel of consumers) rather than the end user making the payment. Also, with automated electronic funds transfer it can provide this service at a more competitive rate than card providers. Data and access to the internet can be a blocker to inclusion and the platform does not charge customers for data when accessing via mobile devices.

My role is to ensure that the business strategy is operationally executed through partnering with key business units within the organisation. As it stands, fintech is unregulated in SA, but this may change in the future, and understanding regulatory frameworks will be critical. This will present new areas to learn about if one hasn't worked in the industry before.

The operations role is multi-faceted and must enable both operational and financial efficiency. Fintech is highly competitive, and efficiency is key to remaining competitive while providing a seamless user experience and generating revenue growth.

Robust operational effectiveness is key when there are rapid spurts of growth driven by investment or M&A. At Ozow, we have a significant scale-up ahead, where we are looking to hire more than double our existing headcount to complement the group with strategic partnerships. With growth will come a corresponding increase in the accounting and finance headcount. With more staff and bigger goals, strong operations are needed to support expanded ambitions.

A key component of strong operations is the human element. Leadership is critical in high-growth and rapidly changing organisations, especially if there is M&A activity. In previous roles, working in the target firm, I have experienced unsuccessful acquisitions, owing to cultural misalignment post-acquisition. A top-down directive to force a certain way of operating didn't work and we lost good people owing to a lack of strategic clarity and a clear operational roadmap to follow from that. Organisational culture does matter, particularly if one plans to expand geographically to markets that may have different operating cultures.

Bobby Chadha, Head of Product, TrueLayer, UK

TrueLayer is a fintech start-up which seeks to challenge the dominance of payment through cards by harnessing the power of open banking. The online card payment experience is often fragmented and frustrating: 16-digit primary account numbers (PANs), websites storing card details, or clumsy authentication loops effectively blocking payment at the point of need.

TrueLayer leverages open banking in developing infrastructure such as application programme interfaces (APIs) for payments, to connect data securely between systems. This allows one to redirect payments to one's own bank for authorisation. So, if one uses a biometric login with one's bank app, the same can be used to authorise a given payment. The payment can be initiated securely through a front-end fintech banking app (such as Revolut, for example). It is then redirected to the individual's own bank app for secure authorisation. People pay from their bank in an efficient and secure way without having to enter the 16-digit PAN as currently done with cards. This also allows people to access their bank transactions across all banks and credit cards in one place, securely, using the front-end fintech banking app; and it can help them to make informed decisions when managing finances.

For merchants, there are significant savings. With cards and their many intermediaries, the cost of a transaction can be as high as 3%; with open banking payments it can be less than 1%. Settlement time is also important: cash

flow is of course king and getting paid fast, securely and at a lower fee makes a big difference to businesses. Fraud has been significantly lower as the customer is redirected to their own banking app.

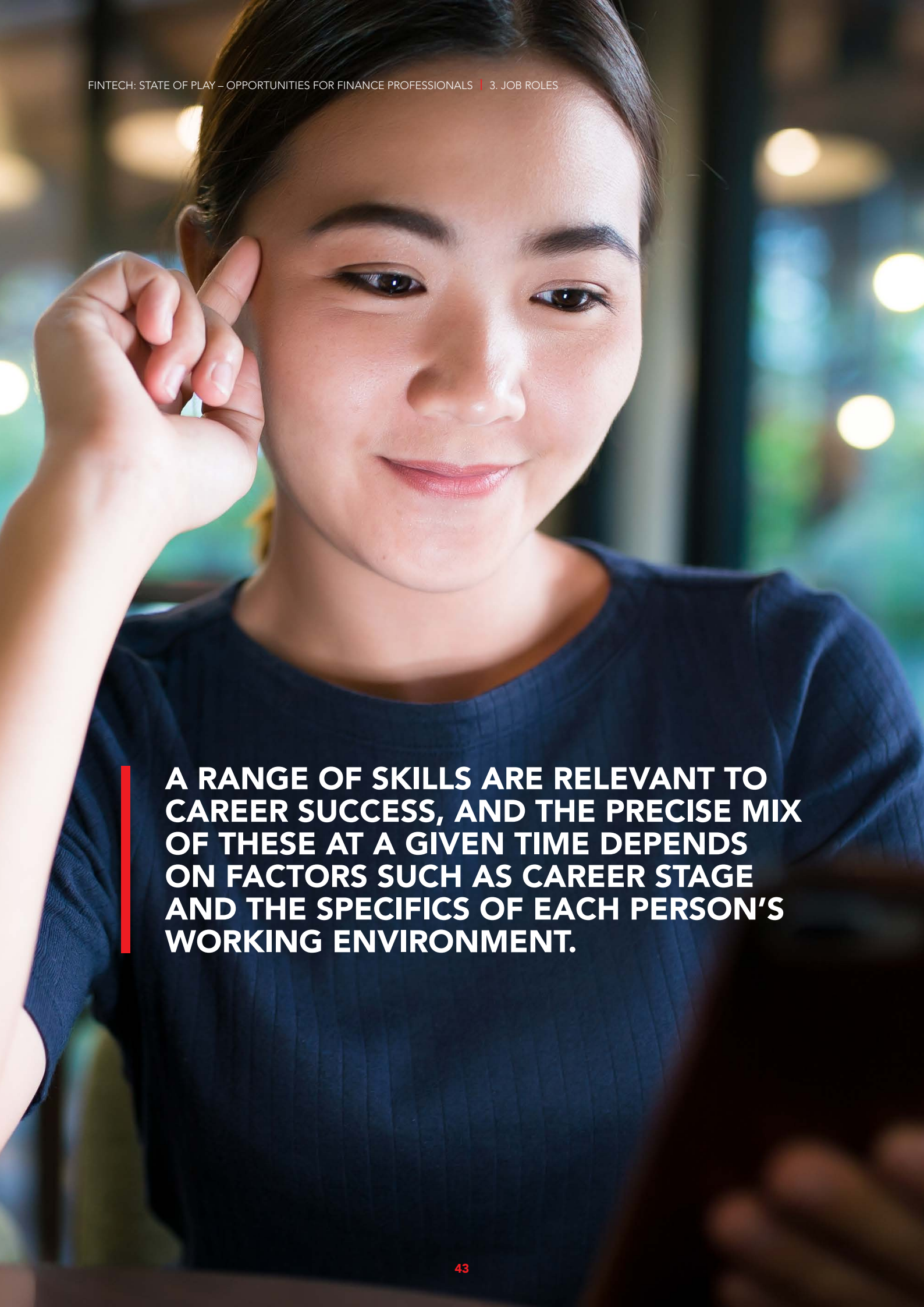
As head of product, my role is to ensure we're satisfying the needs of our employees, our customers, and our business. This requires me to balance key skills such as building a delightful experience for our customers every time they use our products, with understanding the financial impact of the products we're building. My previous roles have mainly been in the realm of banking and fintech, from building and launching QuickBooks in the UK and Europe to building money transfer and management applications within Santander Bank.

Accountants need to get familiar with what open banking can offer, and how it enables payments. This can help those seeking to build an advisory capability. For example, a small business entrepreneur opening a shop or restaurant wants to know how to manage payments coming in and out of their business as cost-effectively

and securely as possible. For large enterprises that want to remove the hassle of using the Bankers' Automated Clearing System (BACs) files to pay suppliers and employees, open banking provides a digital, secure, and cheaper alternative.

The large accountancy practices are embracing open banking in audit. The old process needed hard copies of bank statements, which were scanned and painstakingly reviewed. Now clients may be asked to use open banking to connect to their bank account and to retrieve transaction data through an API via TrueLayer. The process is instant, and transactions can be presented in different formats such as a spreadsheet or within an audit-specific application.

Many accountants in practice are already using open banking through 'bank feeds' in the accounting software. The ability to connect to one's bank and pull-down transactional data has resulted in accountants and bookkeepers saving many hours, for example when completing a VAT return, and provides a clearer picture of the cash position.



A RANGE OF SKILLS ARE RELEVANT TO CAREER SUCCESS, AND THE PRECISE MIX OF THESE AT A GIVEN TIME DEPENDS ON FACTORS SUCH AS CAREER STAGE AND THE SPECIFICS OF EACH PERSON'S WORKING ENVIRONMENT.

Conclusion

Fintech continues to transform how the financial services industry operates. Against the background of this nascent but fast-growing industry, it is understandable for professional accountants to assume that the fintech industry holds few opportunities for them, but this is not the case. In fact, as demonstrated in the section above, the transferrable skill sets held by many professional accountants are essential to fintech businesses large and small. These range from deep technical to regulatory skills, from communication to an ability to think critically. The portfolio of skills held by many professional accountants, when coupled with an openness to change, a flexible mindset and a willingness to pivot to changing needs in a fast-paced industry, presents them with significant opportunities to get involved.

Professional accountants have it all to play for when looking ahead to the opportunities presented by the evolving space of fintech. They have the technical skills and, because finance flows through all parts of an organisation, a panoramic view of opportunities and risks. Equally importantly, they contribute the ethical checks-and-balances that are needed to derive long-term sustainable value from innovation.

The opportunity is there for finance professionals to get involved – starting by building their awareness of the fintech landscape and its regulatory considerations, and understanding their fit within an exciting, fast-paced and innovative sector.



PROFESSIONAL ACCOUNTANTS HAVE IT ALL TO PLAY FOR WHEN LOOKING AHEAD TO THE OPPORTUNITIES PRESENTED BY THE EVOLVING SPACE OF FINTECH. THEY HAVE THE TECHNICAL SKILLS AND, BECAUSE FINANCE FLOWS THROUGH ALL PARTS OF AN ORGANISATION, A PANORAMIC VIEW OF OPPORTUNITIES AND RISKS.

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