

ICAEW THOUGHT LEADERSHIP  
IN COLLABORATION WITH ICAI



The Institute of Chartered  
Accountants of India  
(Setup by an Act of Parliament)



# *Automation in finance functions: lessons from India and the UK*



# Contents

FOREWORD	3
EXECUTIVE SUMMARY	4
INTRODUCTION	6
Research overview	6
Participating companies	6
Glossary	7
1. BUSINESS AND ACCOUNTANCY IN INDIA AND THE UK	8
Digitalisation and the business environment	8
Finance functions in India and the UK	9
2. THE BENEFITS OF AUTOMATION	10
Efficiency in finance operations	10
Data and digital transformation	10
Headcount in finance teams	11
Improved controls and compliance	12
3. AUTOMATION TECHNOLOGIES	14
Impact of small-scale automation tools	14
Key automation software and tools	15
Identifying the right technology	16
4. APPROACHES TO DELIVERING AUTOMATION	18
Automation and process improvement	18
Prioritising automation opportunities	18
Working with IT functions	19
Agile ways of working	20
Managing the risks	21
5. MANAGING CHANGE AND THE IMPACT ON STAFF	23
Engaging staff in change	23
Changing roles in finance functions	24
New skills and attitudes	25
6. LOOKING TO THE FUTURE	27
Emphasise the benefits of automation	27
Retraining and upskilling	27
Value proposition of finance	28
ACKNOWLEDGEMENTS	29
RESOURCES ON TECHNOLOGY AND THE PROFESSION	30

## *Foreword*

ICAEW is delighted to collaborate with ICAI on this report. Technology is transforming our profession, and automation technologies in particular raise profound questions about the future role of chartered accountants. However, automation also creates tremendous opportunities and helps finance functions to deliver more value to their businesses. Professional bodies such as ours can and must play a key role in sharing the practical experience of using these technologies and thereby help our members to thrive in a digital world.

We would like to thank ICAI for their partnership on this project. We believe that such collaborations between chartered accountancy bodies demonstrate the value of international cooperation and knowledge-sharing, and showcase the depth and breadth of our members' experience. This project has also given us a unique opportunity to learn from major companies based both in India and the UK, and we look forward to further collaborations with ICAI in the future.

**David Matthews**  
President, ICAEW



Technology is changing by leaps and bounds and transforming the world around us. The accountancy profession is no exception and with the introduction of artificial intelligence, robotic process automation, blockchain technology, the Internet of Things (IoT), among others, it becomes imperative for all to be vigilant and respond to the technological innovations to continuously improve business operations. Professional bodies acting as torchbearers have a responsibility to enlighten their members about the plethora of technological advancements and guide them to embrace and thrive in this digitally advancing era.

We are thankful to ICAEW for joining hands with ICAI and working jointly on this project on the implementation of automation technologies in finance functions. Both institutions have a long history of mutual sharing and collaboration. We have firm faith that such relationships and collaborations bring both the institutes together on a common platform to showcase the international exchanges and knowledge sharing for the benefit of members at large. Additionally, this project provided us with the unique opportunity of interviewing and digging into the knowledge wells of major organisations from India and the UK. We believe that the report is one of its kind, and we too look forward to further long-term collaborations with ICAEW through many more projects to come.

**CA. Atul Kumar Gupta**  
President, ICAI



## *Executive summary*

### **FINANCE FUNCTIONS MUST AUTOMATE MORE OF THEIR ACTIVITIES IF THEY ARE TO MEET BUSINESS NEEDS**

Businesses expect finance functions to maximise the efficiency of their operations and minimise the time they spend on non-value activities. Automation is a key tool in delivering this goal and, therefore, a high priority for many finance functions today.

Automation also enables wider digital transformation in finance. Businesses increasingly want improved reporting capabilities that can support faster and better decision-making. Solutions that deliver this rely on automated data feeds with little or no manual intervention from finance staff.

Greater use of automation inevitably has significant implications for staff. Jobs will be reshaped and fewer staff will be involved in processing and reporting activities. However, this will allow accountants to undertake more interesting roles and spend more time on higher-value tasks, such as data analysis, decision support and strategy.

### **SUCCESSFUL AUTOMATION IS OFTEN SMALL-SCALE AND CLOSELY LINKED TO PROCESS IMPROVEMENT**

While automation can sometimes involve expensive software, there are many cheaper tools that typically do not require programming-level skills. As a result, a lot of successful automation is incremental and highly targeted, with finance staff applying or configuring automation tools themselves, and minimal support needed from IT specialists. Automation is also more successful when finance departments, not IT, own the change and, therefore, are at the heart of decision-making about automation initiatives.

The companies in our research emphasised that automation generates more benefits when it is integrated into wider initiatives aimed at process improvement and not treated as an end in itself. Indeed, there is a risk that automation can mask a manual and inefficient process or act as a sticking plaster.

### **HAVING THE RIGHT MINDSET AND ATTITUDE ARE JUST AS IMPORTANT AS RESKILLING**

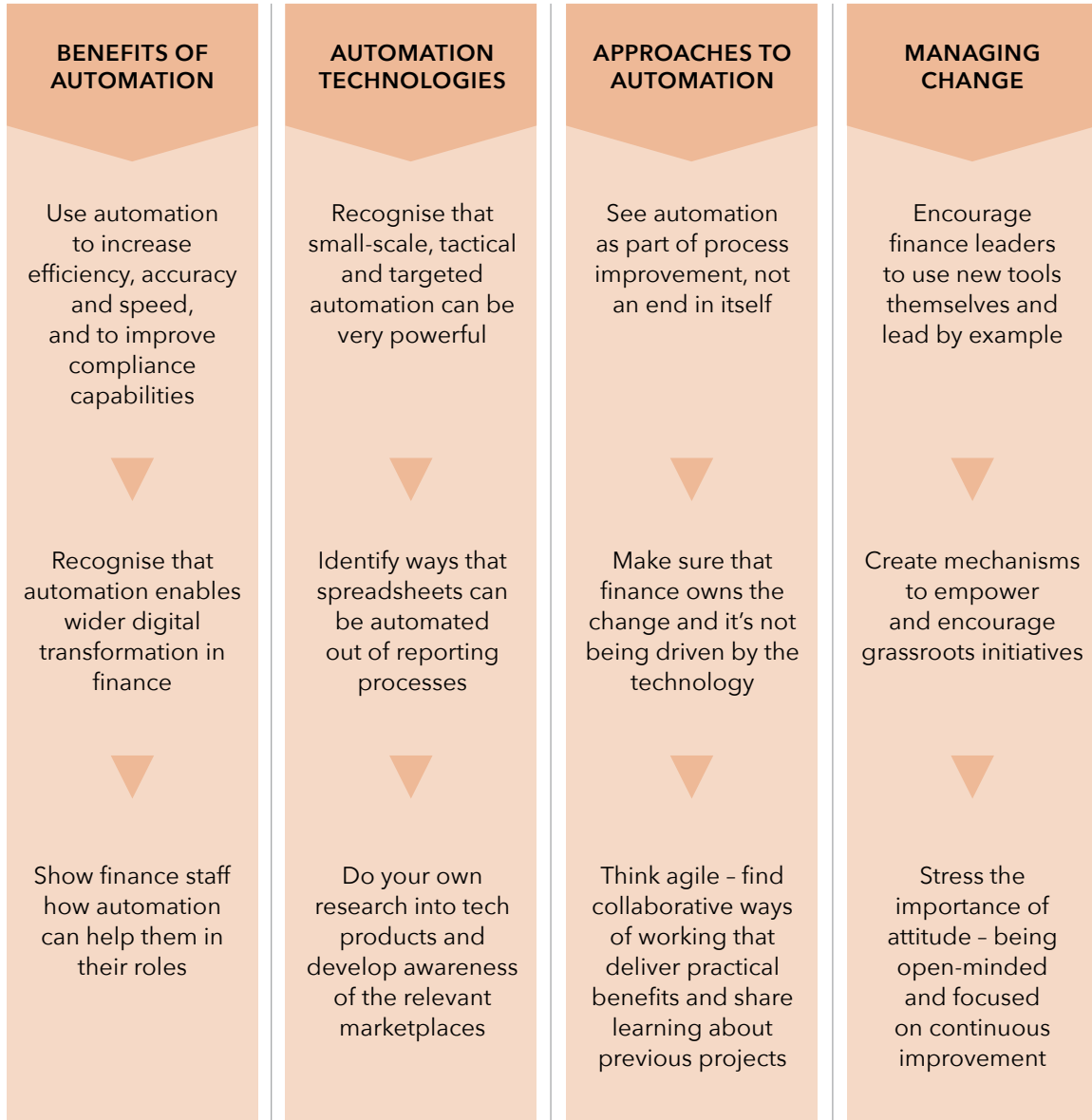
Stronger digital skills are consistently viewed as vital for accountants to be able to undertake changing roles. This was reflected in our research, although such skills did not necessarily translate into deep expertise, with most staff just needing to be confident and intelligent users of tools. The finance functions we spoke to typically only had a small number of staff who were highly proficient with new tools or had specialist skills around IT or data.

However, all interviewees stressed the importance of staff having the right attitude and mindset. Being open minded, curious and prepared to experiment are increasingly viewed as critical attributes for successful accountants. Furthermore, given the pace of change in business and technology, there will be growing emphasis on employees' desire to learn from experience and to reskill where needed.

### **ENGAGEMENT AND DISCUSSION**

If you have any feedback on the research findings, or would like to share your experience of automation in practice, please contact [kirstin.gillon@icaew.com](mailto:kirstin.gillon@icaew.com) or [amitgupta@icai.in](mailto:amitgupta@icai.in).

## *Tips for success*



## *Introduction*

Automation occurs when tasks previously completed by people are taken over by machines or computers. There is a long history of automation in the accountancy profession and accountants have adopted many different technologies to automate the calculations and processes involved in their work. These innovations have helped the profession to grow and take on new and more complex services and tasks for clients or businesses.

The topic of automation has gone up chief financial officers' (CFOs') agendas as new technologies such as robotic process automation (RPA) and artificial intelligence (AI) have matured and become more widely adopted. While this renewed focus on automation has led to fears about the future of jobs, many accountants have also recognised how automation can help them to deliver more value.

### **RESEARCH OVERVIEW**

This research draws on the real-life experiences of finance functions that are making extensive use of automation technologies such as RPA. It has two key aims:

- to share practical insights about the use of automation with accountants around the world; and
- to contribute to the debate about the future of jobs, and share thinking and experience around changing skills in the profession.

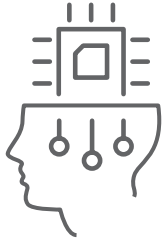
The collaborative approach between ICAEW and ICAI has enabled the research team to learn from finance functions located both in the UK and India. The connection between India and the UK is particularly important because of the way that Indian and UK finance teams often interact. By speaking to companies in both countries, this research can provide a richer picture of where automation is happening and what underpins success.

For example, India often provides a scale of processing activities in finance that simply no longer exists in many UK finance operations following years of outsourcing and offshoring. As a result, UK finance functions often have fewer opportunities to use some automation technologies and looking at companies just in the UK does not provide a full picture. In addition, the complex legal and compliance environment in India means that automation can have a more transformative impact on finance functions than in the UK.

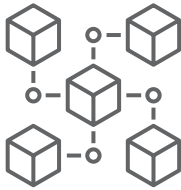
### **PARTICIPATING COMPANIES**

We chose to focus the research on large finance functions. This is because automation activities are likely to be more mature and advanced in these types of organisations. Large finance functions will often have significant resources to spend on technology and transformation, and they will have a scale of operation to justify automation. As a result, such companies are likely to have more experience to share, as well as be able to showcase what is possible with a wide range of technologies. However, the core principles of why accountants might automate tasks and some of the key lessons for success will have broader application across the profession.

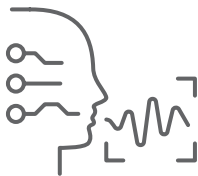
## GLOSSARY

**Artificial intelligence (AI)**

Technology that has been programmed to replicate human behaviour such as participating in natural-seeming dialogue, making decisions, understanding complexities within content and substituting for people in tasks. It can be used around the clock and in processing large volumes of information quickly.

**Blockchain**

A database that is distributed among a community of members, meaning that all the participants work together to maintain the log of entries. It contains an ever-lengthening chain of blocks of data and each block contains a record of a change or transaction that is locked in chronological order.

**Natural language generation (NLG)**

Systems that generate human-seeming speech or written language.

**Optical character recognition (OCR)**

Reading handwritten or typed text electronically to create machine-encoded text that can be used in a different format (for example, text captured from a photograph).

**Robotic process automation (RPA)**

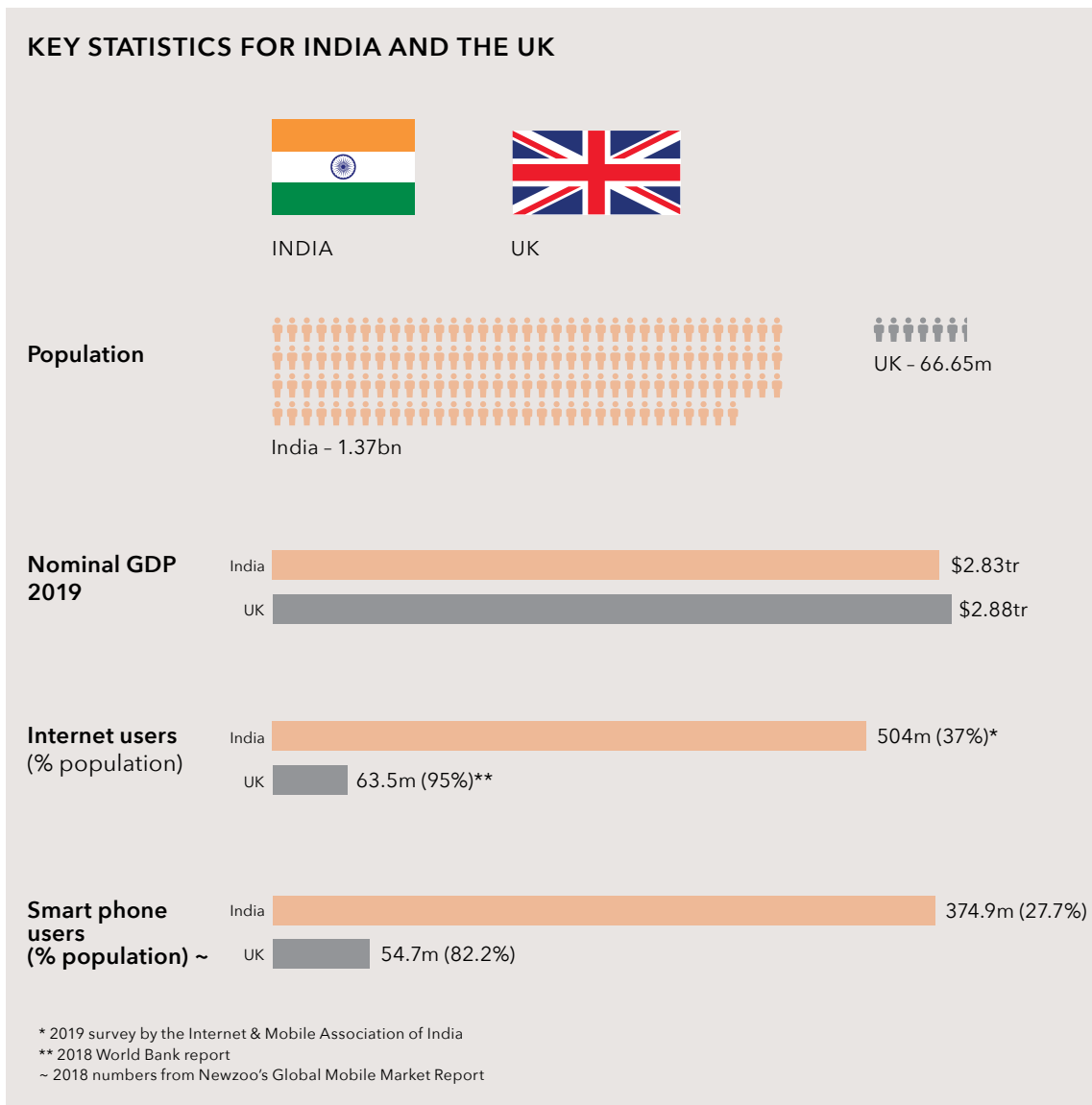
A solution to replicate a business process, designed to do a task that would otherwise be performed manually. It is programmed to follow 'if this, then that' instructions. It runs with other programs rather than replacing them.

# 1. Business and accountancy in India and the UK

## DIGITALISATION AND THE BUSINESS ENVIRONMENT

The role of finance functions is grounded in the wider economic environment and the needs of businesses. Therefore, as businesses in India and the UK are becoming increasingly digitalised, the demands on finance functions are changing. While the specific demands will vary by business and sector, there is a broad emphasis on providing better, faster data and more insight for decision-making. That might mean greater access to data for business users, more real-time or granular data, or more sophisticated analysis.

Digitalisation is an uneven process in both India and the UK, with accountants and finance functions likely to be impacted in a variety of ways. Both countries have large populations of small and medium-sized businesses, many of which are in the early stages of digitalisation and have a long way to go. They also both have some large companies that are leading in their use of technologies in customer-facing activities and operations, as well as finance.





**BACKGROUND: DIGITALISATION IN INDIA AND THE UK**

The opportunities and challenges presented by digitalisation vary considerably between the two countries. India has the challenge, and advantage in the digital world, of scale. It is home to the second-largest number of internet users in the world, after China, and implementation of new technologies is vital to the economic development of the country. The government has taken a lead in digitalisation, implementing the world's largest digital identity system (Aadhaar), which includes over one billion citizens, as well as a major overhaul and digitisation of the Goods and Services Tax (GST) system (similar to VAT in the UK). India is also home to many large IT companies, including Infosys and Tata Consultancy Services (TCS), which became the third-largest IT services company in the world in 2019. India has a vibrant start-up scene, especially in sectors such as fintech.

This scale gives access to large amounts of data, which can feed into advanced analytics and artificial intelligence systems and enable more powerful modelling. Digital technologies give India the opportunity to transform sectors such as financial services, enabling entirely new business models and increasing accessibility to services for more of the population. India also benefits from a large talent pool of IT professionals.

The UK has a mature digital economy and performs well by global standards in a variety of sectors, including e-commerce and fintech, as well as having a strong start-up sector. It benefits from a number of world-leading universities, although there continues to be talent shortages in high-demand areas such as data science. Another barrier to digital innovation is access to data. Helping smaller companies get access to large amounts of data to support new products is an important part of the government's industrial strategy.

**FINANCE FUNCTIONS IN INDIA AND THE UK**

India and the UK are both home to large numbers of professional accountants. Accountancy is a well-respected profession, which large student numbers in both countries continue to aspire to join. In 2018, the Financial Reporting Council (FRC) indicated that around 365,000 accountants were members of UK professional bodies and based in the UK. The Institute of Chartered Accountants in India had 291,698 members as of 1 April 2019, with 126,668 students registered for the year 2018-19.

Accountancy is also an area in which India and the UK have strong links. These links are underpinned by India's strength in service industries. The growth in the service sector in the 1990s, supported by a large educated population with strong English skills and a lower cost base, was reflected in the explosion of business process outsourcing and offshoring. The success of the IT sector in particular provided the backbone for a lot of this activity.

In business process outsourcing, the provision of back-office services for many companies, especially in areas such as IT, finance and shared service centres, were delivered by third-party providers, often based in India. In other offshore models, companies would set up their own operations in India, which serviced the company back in the UK or in other parts of the world.

These models have been extremely successful and mean that many UK finance functions have significant relationships with counterparts in India. In our research sample, for example, most of the UK finance functions had some operations, often in finance and IT functions, in India. Indeed, in two cases, we were able to speak to both UK and Indian teams to gain their different perspectives. The Indian companies in our research – TCS and Mahindra & Mahindra (M&M) – also had operations in the UK.

Where UK companies have outsourced or offshored finance work, the Indian operations typically incorporate the more transactional tasks, with analytical tasks staying in the UK. However, increasingly UK companies are looking to India for solutions in automation and analytics, sometimes in-house and sometimes with partners.

## ***2. The benefits of automation***

### **KEY RESEARCH FINDINGS**

- Finance functions typically start to use automation to achieve greater efficiency in finance operations, such as accounts payables, accounts receivables, journal processing and reconciliations.
- Automation supports the delivery of more accurate and faster data for analysis and, therefore, enables wider digital transformation.
- While automation has an impact on headcount, our research suggested a complex and often indirect relationship.
- Compliance and corporate governance activities can particularly benefit from faster and more accurate data and processes.

### **EFFICIENCY IN FINANCE OPERATIONS**

Businesses expect finance functions to maximise the efficiency of their operations and minimise the time that they spend on non-value activities. Automation is a key tool in delivering this goal and, therefore, a high priority of many finance functions today. It has been used extensively by many finance teams in areas such as journal processing, reconciliations and standard help-desk queries. The research highlighted a particular focus on finding efficiencies in month or quarter-end closings and all the associated processes.

Automation often goes hand-in-hand with wider efforts to digitalise finance operations. As paper-based processes are replaced with technology, a lot of the previously manual work disappears. This can help with the simplification of processes, as they can be designed in a new and more optimal manner.

### **DELIVERING PROCESS EFFICIENCIES**

M&M has implemented a wide range of automation in its core finance operations process. For instance, RPA is used for bank reconciliations. Previously, the company received a bank statement that was uploaded into the SAP system. RPA replaced this manual way of doing things. In the new process, the bank emails the statement to a designated email address, the RPA 'reads' the bank statement and then uploads it into the SAP system, where it is reconciled.

Provisions have also been automated. The basis for automation varies, for example, vehicle warranties are based on previous claims; other provisions may be based on probability statistics or an existing budget. The basis for the provision is uploaded into the system and this then automatically generates an accounting entry, helping to accelerate the closing of the books. Where needed, staff can revise the basis for the provision and the system will then use the revised rate.

### **DATA AND DIGITAL TRANSFORMATION**

Initiatives that aim to transform finance functions usually focus on providing real-time data, dashboards and self-service portals to meet new demands from businesses and improve decision-making capabilities. Automating data flows between systems helps to deliver these solutions. It eliminates the time taken for staff to input, integrate and reconcile data, and means that data can be accessed more quickly, sometimes close to real time.

Manual keying or rekeying of data can also lead to human error in the data, or multiple versions of the 'truth' between different systems. Therefore, automation can improve data quality and reduce the need for lengthy, manual reconciliations of data to identify errors or inconsistencies. This can help finance functions move closer to a 'single source of truth' in their data.

### **IMPROVING DATA QUALITY AT TCS**

As an outsourcing provider, TCS recognises the importance of data quality for efficient business operations. When processes are transitioned from customer operations or another vendor, TCS undertakes a full benchmarking exercise, which includes recommendations about data, process optimisation and controls. This benchmarking exercise takes a holistic approach to data and includes all relevant data used for decisions, both from internal sources and external sources such as suppliers. It looks at what data there is and how it is being used for decision-making.

In addition, TCS proposes strategy consulting engagements on data maturity to clients. These focus strongly on fixing data problems at the root cause, such as reference data, and creating data lineage, whereby they can see exactly how data flows from the point of origin to its use. This emphasis on data underpins effective automation in operations and reporting.

Automation can also help to deliver better data quality and decision-making. TCS has used automation internally to improve the performance management of 150 of its business units. Previously, business leaders had the autonomy to present the unit performance numbers in their preferred ways to the senior leadership. This was transformed with a standardised and automated set of numbers generated directly out of the financial analytics system. By doing this, they can avoid discussions on the accuracy and currency of the data. The change has also led to a step change in behaviour of the business teams, as they need to ensure that the numbers being picked up by the system are correct in the first place.

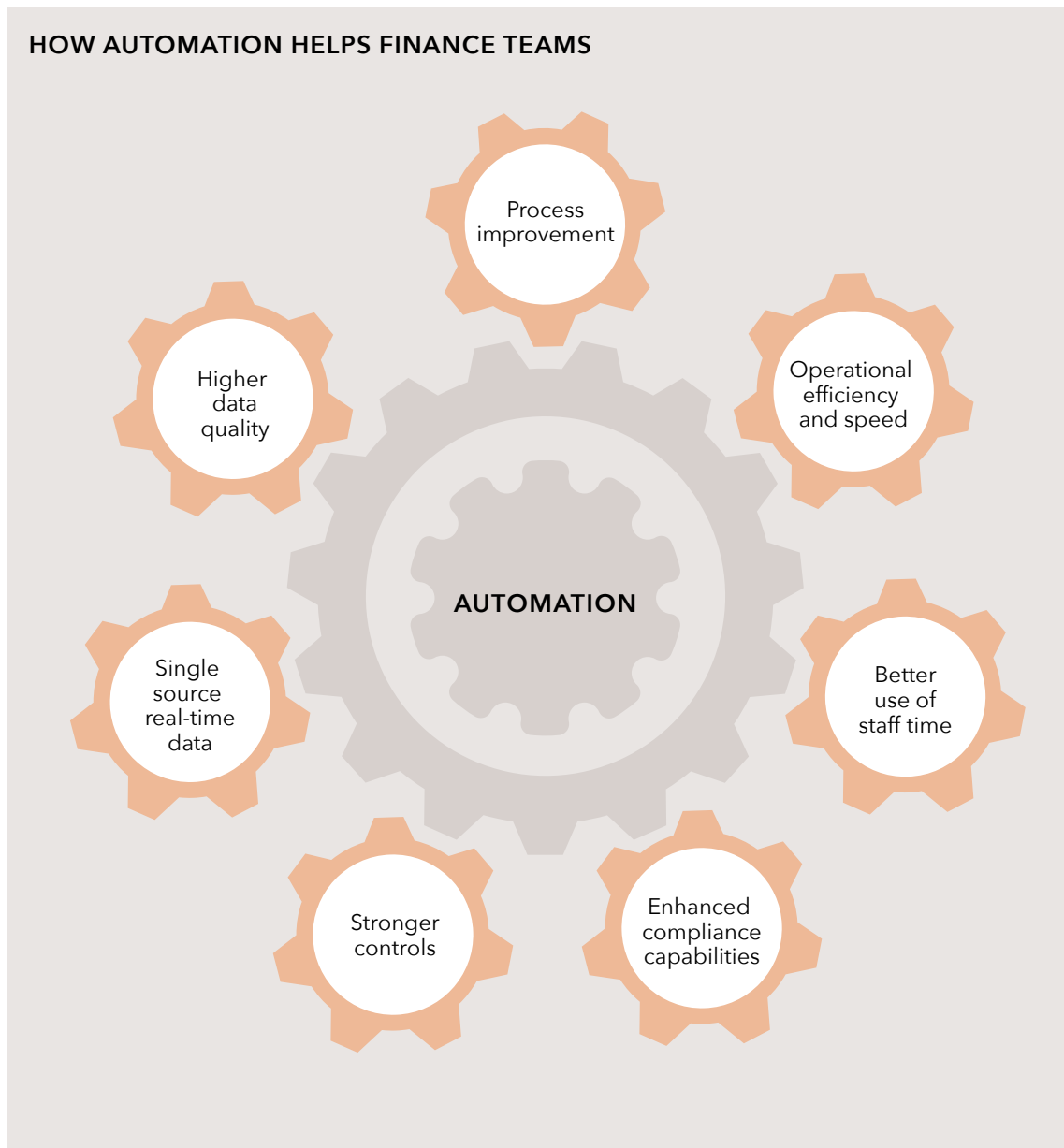
### **HEADCOUNT IN FINANCE TEAMS**

Greater use of automation inevitably has significant implications for staff. If you replace some of the work that accountants do with technology, you would expect to need fewer accountants, especially in operational and reporting roles. However, while there clearly is a correlation between automation and headcount, our research suggested that it was often a complex and indirect relationship.

For instance, several interviewees described how headcount reductions had taken place before automation and as a result of wider restructures and cost pressures. Automation was then explored as a way of helping the retained staff cope with the workload and was, therefore, positively embraced by the staff. Some of the finance functions we interviewed were already lean and highly optimised, having spent many years delivering continuous improvements and working with shared service centres, offshoring or outsourcing models. As a result, the opportunities to significantly reduce the headcount in finance were limited.

Some interviewees highlighted how automation could enable them to take on new tasks or higher volumes without the need to recruit additional staff to cope. Many of the companies put a strong emphasis on retraining and redeploying staff to other roles where needed. We also heard that staff who retired or decided to leave the company were often not replaced, leading to a natural reduction in numbers.

Finally, most jobs are made up of a number of different tasks and automation typically gets rid of some of those tasks, rather than the entire job. As a result, it was often reshaping rather than eliminating jobs.



### **IMPROVED CONTROLS AND COMPLIANCE**

The benefits highlighted combine to help businesses with compliance and corporate governance activities. Where large companies are conducting millions or even billions of transactions a month, automation can enable stronger controls than was previously possible. With manual controls, it is much harder to be sure of their effective operation, increasing the cost of compliance.

Automation can also provide faster data – a growing demand from regulators – and reduce the scope for errors. Given the complex compliance environment in many Indian businesses, these benefits from automation are often particularly important. Indeed, the introduction of GST (similar to VAT in the UK) required larger companies to introduce automated, digital platforms to cope with the size of the change.

### AUTOMATION IN COMPLIANCE AT M&M

M&M has more than 150 entities, including a number of listed companies. Its range of operations means that it has to comply with 1,700 laws (or 40,000 clauses) across all its different businesses, including offices and factories. There is also a legal requirement that the CEO and CFO confirm to the board that all the laws of the country are being followed every month. To cope with this, M&M has put a heavy focus on having a 'single source of truth' in its records, moving from manual processes to digital reporting platforms that better support compliance, speed and accuracy in data.

M&M has many different systems that deliver this, including:

- **MeConnect app:** through which all approvals for purchase orders, payments and invoices are done, as well as updating annual leave and making announcements to employees.
- **Compliance tool:** which manages all the monthly/quarterly confirmations that are needed for different laws. Once the rules have been defined for the business area, and an individual assigned relevant responsibility, alerts are then triggered when actions are needed. Individuals confirm compliance with the relevant clause, and this is cascaded up through management.
- **Litigation tracker:** which gives the status of any outstanding litigation, in relation to direct and indirect taxation and links to M&M's contingent liability schedule. Like the compliance tool, it has automated alerts and provides complete details of the litigation status, including any provisions made.

### ***3. Automation technologies***

#### **KEY RESEARCH FINDINGS**

- The growth of lower cost, user-friendly automation tools has enabled targeted and small-scale automation in finance.
- Finance functions are using a wide range of automation technologies, with some starting to look at more advanced technologies such as AI.
- Being proactive about the available technology typically leads to the best results. This includes looking at the market, identifying potential tools and learning from the experience of peers.

#### **IMPACT OF SMALL-SCALE AUTOMATION TOOLS**

The growing demand for automation has been matched by improvements in the available tools. New generations of software, especially in the cloud, are built with automation and integration in mind. Costs have reduced and, while automation can involve expensive software, there are also many cheaper tools that typically do not require programming-level skills. As a result, finance staff can sometimes deliver small improvements quickly with little reliance on IT specialists.

This kind of smaller-scale automation can have a particularly strong impact for finance functions. Many finance tasks are relatively repetitive and standard, making them strong candidates for automation. However, automation has often been hard to deliver in practice because of the way that many finance functions have evolved.

Finance functions often have to deal with diverse organisation structures, with multiple business units, geographies and decision makers, which leads to a multitude of systems and processes that are not well integrated or standardised. This complexity has frequently been compounded by mergers and acquisitions. Furthermore, enterprise resource planning (ERP) systems have often lacked the specific functionality or flexibility needed by companies, especially around reporting.

As a result, there is typically a heavy reliance on spreadsheets in finance to capture data, move data around and reconcile different data sources, as well as plug the gaps in functionality or deliver bespoke reporting. Accountants have been pragmatic in their use of spreadsheets to find solutions to these kinds of problems. However, it has also led to complex environments that are now slowing down operations significantly and need to be unpicked.

Therefore, while our research highlighted some major automation initiatives, there was also a strong focus on small-scale improvements that addressed many of these day-to-day issues.

#### **AUTOMATION TECHNOLOGIES IN SMALLER ORGANISATIONS**

Although this research project focused on large finance functions, there are also many automation opportunities in smaller finance functions and accountancy practices, typically based around cloud accounting applications.

Cloud accounting software is typically developed to be user-centric, highly automated and based on principles of self-service. Furthermore, the use of application programming interfaces (APIs), which enable applications to connect and exchange data, has helped increase integration between software and led to many add-on apps around the core accounting systems. This development has turbocharged automation opportunities.

Automation in this context focuses on data entry and enabling the automatic flow of data from one system to another without any human intervention. This includes data going into the accounting system, such as from banks, invoices and receipts, payroll and expenses claims. It also includes data being drawn from the accounting system, for example into reporting systems or tax filing applications. In the add-on world, the apps that deliver these different types of functionality link cleanly into the accounting system.

## KEY AUTOMATION SOFTWARE AND TOOLS

The finance functions interviewed in the research were using a wide range of technologies in their automation initiatives. ERP systems continue to be the backbone of finance activities and several interviewees emphasised the desire to use standard, integrated and automated approaches in their ERP environment as far as possible. For a few companies, major ERP upgrades presented opportunities to make big improvements and changes to their processes. It also encouraged companies to think about the wider set of applications that plugged into the relevant ERP system to maximise system integration.

RPA has generated a lot of interest in recent years and many of the interviewees highlighted their use of robotics. This is a powerful technology that can be used to automate rules-based, high-volume processes. However, some of the companies had found it harder to scale up RPA than they had expected. Reasons for this included managing concerns about controls and security, difficulties in building business cases and staff resistance. Therefore, while it had a role in most automation strategies, it was only one piece of the picture.

Other software packages were perceived as being very useful for specific tasks.

- A couple of companies highlighted the software tool Alteryx, for example, which can be used to integrate data from multiple data sources.
- One company was using a data mining tool to analyse processes in detail, identify opportunities for improvements and automate some of the controls in place.
- Optical character recognition (OCR) tools were being used to help with scanning and processing of documents.
- Automated forms were being used to support data entry across many of the companies.
- Data analytics and visualisation tools, such as Power BI, also linked closely into many processes.

More advanced technologies such as AI were being explored by some companies, although usage was still quite limited in practice. Matching invoices and payments and anomaly detection were identified by some interviewees as potential areas that could benefit from AI. There was also some experimentation with natural language generation tools, which use AI to create written content and thereby can automate the writing of some management reports. None of the finance functions interviewed in this research were leading any specific initiatives around blockchain.

There was also a strong push from a number of the companies in the research to reduce their use of spreadsheets in reporting processes. While spreadsheets can be very valuable as flexible tools for analysis and decision support, their widespread use in processes such as reporting can present control risks given the scope for manual error. Replacing them with automation solutions can reduce these risks as well as increase efficiency. As a result, the use of spreadsheets can be refocused to areas such as modelling.

### **USING AUTOMATION TO REPLACE SPREADSHEETS**

GSK in India has been on a mission to reduce the time taken to produce monthly financial reports and increase the availability of 'touchless' reporting - that is, where data is taken automatically and directly from the source to process and produce visualised reports. Through the extensive use of automation, GSK has reduced monthly closing and reporting from five days to two days.

CFO Puja Thakur found her team was spending a significant amount of time using Excel to download, adjust and then upload data. Since then, they have been on a journey to excel in 'no Excel'. Staff were initially resistant to the idea that there could be a more efficient way. To move the project forward, staff were requested to provide a list of all cases where Excel was being used, why it was being used and how long it took. Puja and her team carved out the processes that were monotonous and routine and introduced bots to do those jobs automatically.

The team then focused on eliminating the use of spreadsheets further and replacing them with tools that carried out automatic downloading and enabled better visualisation, such as Power BI and Qlik Sense. These solutions typically provided better support for management when making decisions, doing analysis and looking for outliers.

These automation solutions have also proved beneficial in other areas of finance. In indirect taxation, for example, GSK uses bots to take care of auto uploading. Likewise, in the case of approvals, everything is done seamlessly and online.

The approach and range of solutions are being shared with other GSK subsidiaries around the world, which is saving time and also improving the quality of data and reporting.

This reliance on technology has enabled GSK India to respond effectively to the Covid-19 crisis, with the entire finance team working at home for four months. Work has not stopped, and they have been able to prepare all papers for both Annual Board meetings and Annual General meetings online. On this basis, they are considering the future of the office and whether the team can work more flexibly.

### **IDENTIFYING THE RIGHT TECHNOLOGY**

There are many products that could be used for finance automation. Therefore, a critical task is identifying the right technology and vendor for specific projects. While IT functions have good knowledge of the technology landscape, finance functions are often best placed to see which functionality will suit them.

In most cases, interviewees had been proactive and done their own informal and largely ad hoc research into the market to identify relevant products. Conferences were often seen as very useful, especially the opportunity to speak to vendors at exhibitions and find out more about specific products. The value of speaking to other users was also highlighted by many interviewees. This could be through networking at relevant events, for example, or listening to user stories at vendor events. This engagement helped them to learn what products could really deliver in practice and how others had used them. Therefore, finding ways to share information and insights with peers was an important source of market intelligence for many of the companies.



### **WORKING WITH START-UPS**

M&M has a company-wide 'Dragons' Den' style initiative and invites start-ups from a variety of communities to showcase their products. Start-ups come from specialist innovation programmes run by vendors such as Microsoft, and specific locations which have a very strong start-up environment, such as the state of Kerala. Start-up teams attend a day-long session, with 8-10 teams shortlisted based on how their product fits to M&M requirements. Following an assessment by a jury, the winning teams can create a proof of concept.

TCS also has a wide range of ways of engaging with start-ups to benefit clients. Its Co-Innovation network (COIN™) is run by the chief technology officer and includes innovation labs, listening posts in start-up hubs and connections to research and development in universities. It has connections in many international hubs, including the San Francisco Bay area, Boston, Israel, Finland and London. TCS also runs showcase events of start-ups for clients through its global innovation forums and client innovation days.

## ***4. Approaches to delivering automation***

### **KEY RESEARCH FINDINGS**

- Automation is not an end in itself – it is most effective as part of a wider process improvement and may not always be the best solution to the problem.
- Prioritisation of automation opportunities is usually driven by return on investment, which can be a high hurdle to achieve in practice.
- While different relationships with IT functions are possible, the greatest value from automation is delivered when finance is driving change.
- The use of agile approaches often underpins project success – these focus on having the right blend of technical and functional skills and knowledge, iterative decision-making and continual learning.
- The implications of the risks and controls of automation solutions need to be properly addressed in order to scale systems up effectively.

### **AUTOMATION AND PROCESS IMPROVEMENT**

A key lesson from our research is that automation can often act as a mask or sticking plaster over a manual and inefficient process. While it may seem like a quick way of fixing problems, experience showed that it was often better to go to the root cause and fix the underlying process rather than automate it.

On the other hand, fixing underlying processes may be time consuming or expensive so automation may, in some cases, deliver a quicker result or a stronger return on investment. Automation is also commonly used to fill gaps between applications where there is a lack of system integration or where there are business requirements for a bespoke solution.

There is no right or wrong answer to the question of whether to automate – it will depend on the individual circumstances. However, all our interviewees emphasised that automation is not an end in itself. It will generate more benefits when it is integrated into wider process improvement initiatives and follows efforts to standardise and simplify processes. Indeed, a few of our interviewees agreed that they had done less automation than they had originally envisaged because it had been more beneficial to fix underlying processes.

The focus on process improvement meant that finance departments were generally at the heart of decision-making about automation initiatives, and these decisions were not being driven by the technology. This led to a strong focus on the desired outcome and understanding of the business priorities.

To support this role, some finance functions even had staff specialising in process improvement and well-known process improvement methodologies such as Six Sigma. These methodologies typically focus on eliminating waste, reducing errors and variation, and ensuring good practices are systematically applied.

### **PRIORITISING AUTOMATION OPPORTUNITIES**

Given the number of opportunities for automation and the limited resources of most finance functions, prioritising activities is a critical task.

Projects that relate to compliance or licence to operate will inevitably be top priorities. Beyond that, our research suggested that prioritisation is usually focused on a cost-benefit analysis.

### **BUSINESS CASE FOR RPA**

RPA has been a popular and high-profile form of automation in recent years. However, companies can struggle to build a convincing business case for extensive use of RPA.

Transaction or task volumes are usually key to building RPA business cases. Where the volume of transactions is high, implementing RPA may help finance teams to reduce headcount or redeploy staff. In contrast, it is unlikely to be justifiable to build a robot to do something that happens only rarely.

Finding high-volume transactions, though, has been a particular problem in UK finance functions, where such work has often been outsourced or offshored to cheaper locations. As a result, identifying processes with an appropriate return on investment can be difficult. Conversely, while Indian finance teams may work with high volumes of transactions, staff costs are lower. This can make it difficult in practice to build a strong business case for RPA based around cost reduction.

Consequently, finance functions may take a broader approach to justifying investment in RPA. In some cases, it is possible to build a business case around the improved accuracy and compliance that RPA can deliver, rather than efficiency and cost reduction. RPA can also be treated as a way of fixing highly manual processes or freeing up staff time quickly where the alternative is to invest in a more expensive ERP-based solution.

Levels of risk can also influence the prioritisation or phasing of initiatives. Where there is a repetitive process with minimal risk, automation can be straightforward with relatively few steps. In other cases, where the process involves judgement or oversight, automation is likely to be more gradual, retaining higher levels of manual intervention until processes are more mature and the risks are manageable.

### **WORKING WITH IT FUNCTIONS**

Delivering automation solutions will sometimes require close working with IT specialists, but our research highlighted some of the tensions that can arise between finance and IT functions. Availability of resources, for example, is a common issue. IT functions will have multiple requests from across the organisation for support, creating competition for resources.

As a back-office function, finance may struggle to get its voice heard, which can potentially reduce its share of technology resources and slow down change. IT departments will often be focused on large, corporate applications, rather than some of the smaller-scale issues or tools highlighted in this research.

IT functions also focus on the controls and governance around technology. While this focus is essential, it can appear to be disproportionately costly or inflexible when finance wants to implement relatively small-scale, quick projects or try things out in pilots. Most interviewees highlighted the challenge of getting this balance right – enabling more tactical or experimental initiatives while also ensuring that scaled-up applications had appropriate governance and control. This was reflected in a range of approaches to working with IT functions.

In some cases, finance and IT staff were sitting side by side on projects. This produced the right blend of knowledge or expertise, with the finance staff typically proactive in identifying automation opportunities and working closely with the developers to build the right functionality.

There were also examples in our research of finance teams delivering smaller automation projects internally, with limited involvement from IT departments. They had trained a small number of staff in the relevant tools, which were user-friendly and did not require deep programming skills. These employees had then developed considerable expertise in the effective implementation and use of the specific tools. This approach enabled finance to deliver some automation projects quickly, cheaply and focused on areas that were most beneficial to them.

### **DIFFERENT WAYS OF WORKING WITH IT**

The finance team at Boots decided to develop its own capabilities in RPA so that it could implement it relatively cheaply and quickly in ways that suited the team. As a result, two members of staff were trained to configure the application. Although there were some issues in doing it in-house in this way, such as technical difficulties with test systems, this approach enabled the team to implement 18 RPA processes, including short-term tactical automations. Following finance's successful pioneering of RPA, responsibility for future deployments was transitioned into the IT department with the support of third parties. This would add more governance, speed up delivery capability and enable other departments to make use of RPA functionality. However, it would also reduce the feasibility of small-scale automations.

The finance team at Johnson & Johnson also took an in-house approach. The IT function was focused on large-scale, corporate applications, such as the ERP systems, and provided limited support for other systems. As a result, the finance team built its own skills and experience around the application of Alteryx in particular. The team has made widespread use of it in a variety of process areas to deliver some highly effective automation of data flows and integration. This did not require programming skills and a small number of staff have developed strong expertise in its use as a result.

M&M encourages very strong collaboration between IT specialists and the finance team. As a technology business, M&M does a lot of its own technology development and support, and the IT team includes staff who have joined from business roles. For example, it includes former finance function staff who bring deep functional knowledge into the IT function and ensure that it is focused on the needs of the business and the users.

Regardless of the specific ways of working, though, the research suggested that it was essential for finance to retain ownership of initiatives and to avoid a perception that IT was imposing solutions or doing everything. M&M described how the IT team left the final 5-10% of project delivery to finance, to enable the finance team to fine-tune it based on its needs. Similarly, TCS looked to users to generate the ideas for change so that they would feel ownership when embedding it into their environment.

### **AGILE WAYS OF WORKING**

Agile methods were consistently highlighted as key to implementing automation technologies effectively. While agile is a very specific methodology used to deliver IT projects, the term is often used quite broadly to describe an approach that is flexible, responsive and focused on user needs. This contrasts with more traditional forms of project management, which typically spend a lot of time upfront trying to define the user requirements that will then be translated into the system.

The agile approach is based on short development periods (known in the methodology as sprints), iterative decision-making and very collaborative and focused development practices. There is a lot of interaction between developers and users throughout the process. Users will try out new

functionality as early as possible and provide feedback so that the developers can improve and refine the functionality accordingly. Decisions can then be made based on practical experience and learning.

The use of prototyping and minimum viable products (MVPs) reflect these principles. MVPs are a common feature of digital development and mean that the application is developed in the first instance with the least amount of functionality needed to enable it to work. Further functionality can then be added on where it is needed. This enables fast, evidence-based decision-making and avoids wasting time on projects that are not viable in practice. It also stops the over-development of applications, whereby a lot of unnecessary functionality is added that is rarely used.

While this is a very flexible approach, it requires a lot of discipline. For example, daily stand-up meetings or check-ins help to track progress and maintain focus. The agile approach also forces users to make hard decisions and stop developments where the evidence shows they are not likely to be successful. However, all our interviewees cited elements of the agile approach as being important to their success with automation.

### **BUILDING THE RIGHT TEAM**

One key element of agile approaches is to work in multi-disciplinary teams that incorporate a blend of skills and knowledge. This blend will include IT specialists and people from the finance team with the relevant domain knowledge. Third-party providers may be involved and selecting the right partner and project personnel can be an important element for success. External expertise in areas such as tax and audit may be necessary. Finding the right software partners can take time.

But building internal expertise is also vital. GSK India leans on its Tech team to drive the adoption of bots internally and it is moving away from reliance on external vendors as the Tech team has developed the right experience and skills capability. The Tech team has also been forward looking and moved on from being focused purely on IT services, hardware and software. The Tech head, for example, has great experience in data analytics, unlike previous tech leaders.

In addition, GSK India has invested in a Power BI champion for the entire organisation. He trains staff in Power BI not only in the finance department but also in sales, commercial marketing and supply chain. The finance team has built up a bank of workplace videos on how it uses Power BI and this is shared with other teams, building learning capabilities across the organisation.

### **MANAGING THE RISKS**

While prototypes and pilots are very valuable, it can be challenging to scale these up for wider and more systematic use. Some of the issues relate to building a business case for more users. Other likely issues relate to risk management and ensuring that the right controls and governance are in place for more systematic use of tools.

The risks relating to automation are mostly generic to the implementation of any new technology. Companies need to think about cyber security, any use of personal data and the suitability of vendors, both in terms of integration into wider systems and longer-term sustainability of the product. A few of our interviewees highlighted ways that they worked with start-ups and incubator programmes, for example, so these kinds of risks needed to be clearly addressed when thinking about wider use.

There are also specific risks related to automation. Where humans are no longer involved in processes, controls need to be in place to identify and manage errors or flag exceptions to staff. Appropriate controls around the separation of duties need to be in place. Finance functions need to ensure that appropriate knowledge is retained within the organisation and is not lost where automation takes over processes.

Automating processes can therefore result in some challenging conversations with audit teams and internal audit functions. The research found that overcoming any concerns about the controls in place and demonstrating the robustness of new approaches underpinned the widespread use of new tools. This can also enable finance to take advantage of some of the ways that automation can enhance controls, for example, providing more transparency of staff actions and better audit trails.

## *5. Managing change and the impact on staff*

### KEY RESEARCH FINDINGS

- It is vital to engage and empower staff to play a role in identifying automation opportunities and supporting its delivery.
- Automation is leading to changes in finance and, therefore, significant rethinking of roles that put more emphasis on value-added tasks.
- Upskilling in technology, process and softer skills is becoming increasingly important for accountants at all levels.

### ENGAGING STAFF IN CHANGE

A key theme from the research was that staff needed to be actively engaged in the design and implementation of new tools and process improvements for changes to be maintained.

Supportive and visionary CFOs and CEOs were cited by some interviewees as essential to creating the momentum needed to drive change. The arrival of a new executive who was enthusiastic about the opportunities from technology was often the trigger for wider automation and transformation. Indeed, without such executive sponsorship and support from wider business users, it was felt that transformation efforts would fail.

Boards could also lead by example and change the way they do things to exploit new technologies. A couple of companies described how their board meetings were now based around dashboards, not presentations. This enabled the board to drill into the detailed numbers to support discussions and avoided an array of slides containing different views or approaches. It also highlighted the role of senior finance leaders as providing insight rather than generating reports.

Communication was considered critical. Indeed, some interviewees described the need for what could be seen as over-communication to help staff understand why change was needed and manage any anxieties. While leaders might feel they have communicated these points clearly, it often needed high levels of engagement.

However, leadership was not enough. All the companies interviewed also referenced a wide range of activities to engage staff at all levels and encourage ideas and grassroots participation in automation projects. This engagement helps to manage concerns about jobs. If staff can see how they can gain new skills and experience by working on projects, or how their role will evolve as a result, there should be less resistance to change.

One company described how they trained staff to have a 'licence to operate' the system, which gave the employees greater confidence around the technology as well as new skills. Naming robots was another common method for getting staff buy-in and support, with several of the interviewees describing how their finance teams had run competitions to name a robot that was taking over some of their work. This helped staff to see the robot as part of the team and take greater responsibility where problems occurred.

Staff on the ground will also be better positioned to identify automation opportunities. They know processes in detail and enabling, recognising and rewarding these contributions, even if only relatively small, can have an important impact on staff morale. 'Walking the floor' and learning from the grassroots experience can be very helpful to management. One leader described how it was only possible to appreciate the specific needs for automation tools by connecting with staff and seeing the problems they experienced when carrying out the work in practice.

Several of the companies interviewed went further and added a competitive element to their automation activities. Examples included formal competitions, as well as less formal methods of setting challenges or encouraging friendly rivalries between teams. Some companies also used

hackathons as ways of bringing together people from different backgrounds to generate ideas for solving specific problems over a short time period.

### **EMPOWERING STAFF IN CHANGE**

Hays has implemented a number of initiatives that aim to engage staff at all levels in process improvements and automation. The company believes that staff are best placed to identify the pain points in their roles and suggest small changes.

The finance team has an annual competition, which is judged by senior management, whereby staff can present ideas for improvements. There is a prize for the winner and the idea is put forward to the process improvement team to explore whether it can be implemented. A recent winner, for example, proposed the use of OCR technology so that job candidates could take a picture of their bank account details, which were then automatically fed into the system. This took out the risk of errors, sped up the process and took away a tedious task from staff.

The main competition is supplemented by a variety of other initiatives to help staff participate in change and contribute ideas. There is plenty of public recognition for good ideas, such as sharing stories over the internet, as well as smaller prizes.

### **CHANGING ROLES IN FINANCE FUNCTIONS**

There is a lot of discussion about changing roles in finance and accountancy today. The research picked up on this theme and a number of finance functions were developing role profiles for the future. These profiles reflected greater automation of standard processes and more focus on value-added tasks, especially around data. Developing a structured approach to defining current and future role requirements also helped to identify commonalities and genuine differences between jobs and enabled better conversations about mobility and future job opportunities.

Self-service is a good illustration of how automation underpins significant changes in the role of finance professionals. Self-service enables the business users of financial data to have direct access to that data, usually via dashboards and similar tools. This, therefore, fundamentally changes the role of the accountant, as accountants are no longer the 'gatekeeper' of the data.

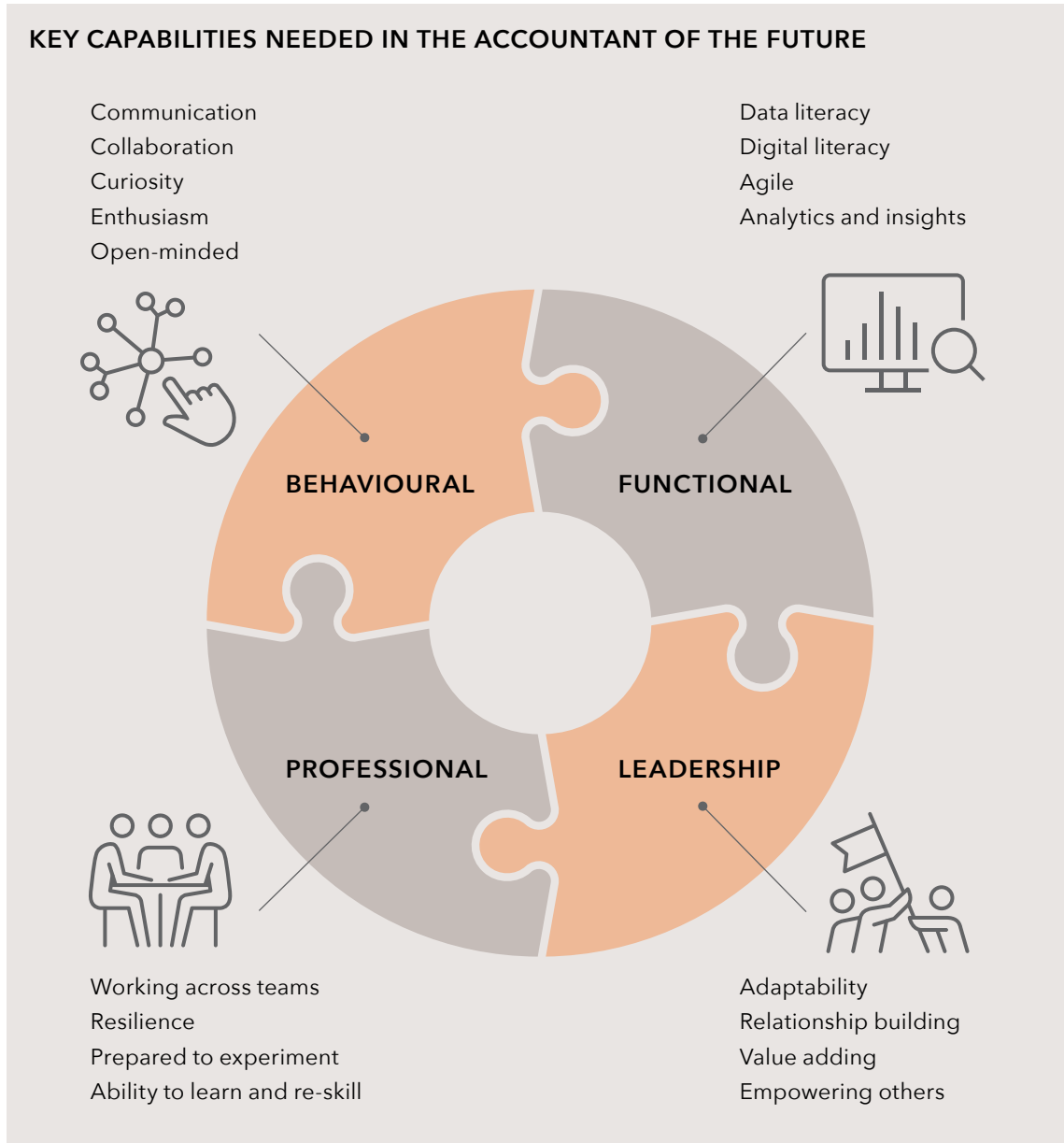
### **SELF-SERVICE AT JOHNSON & JOHNSON**

Like most finance functions, Johnson & Johnson had a complex reporting environment, with a mix of tools in place and a lot of spreadsheets to bring data together and put it into a useful format. The company has now replaced this reporting environment in most of Europe with a self-serve portal so that business users can get the data they need when they want it. The data flows are fully automated, with no manual intervention between the ERP system and the ultimate visualisation tool.

The portal was created in close collaboration with the business users, with the reporting needs defined through workshops and a detailed audit of current reporting. Finance also established local self-service ambassadors who could provide support, training and project input on the ground. As a result, the response from business users was very positive, as it gave them more accurate, more granular and faster data and enabled better analysis. It also provided greater transparency on what data users actually wanted and used.

However, this has resulted in a significant change for staff. Previously, the accountants would provide all the data by ways of reports in spreadsheets. After the transition, that has all stopped. Instead, they are doing more by way of analysis and building stronger relationships with the business.





### NEW SKILLS AND ATTITUDES

As roles change, accountants need different skills. There is already a lot of literature about the need for accountants to have more technology and data skills in order to do more advanced analytics. This is reflected in significant levels of training and reskilling across the profession, as well as updates to accountancy qualifications.

This research reinforced those general shifts and all the finance functions interviewed were thinking about skills and training needs. One company had asked staff to participate in a self-assessment of their skill levels in many different areas, including digital technologies, analytics, softer skills and technical skills. These self-assessments identified some skills that were not being used, as well as providing an evidence base to help identify where training may be needed and for future benchmarking comparisons.

However, there were differences of opinion and emphasis about the extent of knowledge that was needed. For example, the question of whether accountants should be learning to code was a source of debate. Some finance functions were training staff in programming languages such as Python to help them with data science tasks in particular. Others felt that this would not be necessary, or that it would be difficult for accountants to gain the depth of knowledge needed. As a result, many companies still preferred to hire tech specialists for accountants to work alongside.

The level of skill needed for specific tools also varied. Our research indicated that finance functions typically had a small number of finance personnel who were highly proficient or expert with the tools that were being used. However, this level of expertise was not necessary for all staff. Having built centres of excellence around specific tools or technologies, finance teams were now grappling with the bigger question of how much the average finance professional needed to know in order to use tools effectively and provide the insights needed.

The interviewees framed these needs in a variety of ways. Some companies talked about the need for all accountants to have data literacy, including knowing where data was and how it was being used by a company. Others talked about the importance of all accountants knowing 'the art of the possible' with technology and understanding how different technologies could potentially be used within the finance functions. Many of the organisations had invested significant time and resources in digital training programmes for finance teams.

Discussions went beyond technology skills. Process expertise and skills in process improvement methods were important in the specific context of automation initiatives. Softer skills, such as communication, were also brought up by some interviewees, as well as strategic and future-oriented thinking.

Most of all, though, all interviewees stressed the importance of having the right attitude and mindset. Attributes cited as critical for accountants commonly included:

- being open minded
- being curious
- working in an agile and collaborative way
- prepared to experiment
- willing to accept that not everything will work, and some things will fail
- learning from experience
- desire to reskill where needed.

Indeed, some interviewees referenced how they increasingly focused on attitude, not just skills, as part of the recruitment process. Furthermore, these were expected behaviours in staff and typically formed part of performance objectives.

## ***6. Looking to the future***

For the accountancy profession to seize the opportunities from new technologies and deliver greater value to businesses, it must embrace automation. This research suggests three broad areas that key stakeholders should focus on to help finance functions succeed in a more automated world.

- Emphasise the benefits of automation and share good practices.
- Retrain and reskill staff to work in changing roles.
- Develop and demonstrate a different value proposition for finance.

### **EMPHASISE THE BENEFITS OF AUTOMATION**

There is still a fear of automation, and its potential impact on jobs, across parts of the profession, which needs to be addressed if accountants are to make the most of these opportunities. While there are legitimate concerns about jobs, our research suggests that automation leads to a number of different outcomes in terms of headcount.

The benefits of automation are also wide ranging and encompass more accurate and timely data, improvements in controls and compliance, as well as more interesting work for accountants, with less time on repeatable or monotonous tasks. There is a need to emphasise the benefits and help all accountants see how they can use new technologies to do their jobs more efficiently and effectively.

The research highlights good practices that underpin success, including close alignment with process improvement initiatives, working effectively with IT teams and agile methods. Automation needs to be applied appropriately so that it is not just a sticking plaster over a poor process. Most of all, finance functions need to own the change themselves. This requires finance leaders to share a vision of the future, but also to empower staff of all levels to contribute ideas and be fully engaged in the process.

There is a clear role here for professional bodies to curate and share learning through research such as this. Professional bodies can also find ways to help their members share their own experience more directly. One of the most powerful sources of information and insight, according to this research, is other users of automation technologies. Therefore, finding ways to connect peers can be hugely valuable.

### **RETRAINING AND UPSKILLING**

All the research on digital transformation and finance functions emphasises the importance of acquiring new skills. This project has been no different, and we have enjoyed many fruitful conversations about the skills that accountants need today and in the future in order to be successful.

Digital technologies and data analytics are commonly highlighted as areas where accountants will need more skills. Most accountants will not need to be experts in these areas – there will be a small number of subject matter experts in finance functions who will have deeper skills in relevant technologies and methodologies. However, all accountants are likely to be exposed to new automation tools and therefore need to be confident and intelligent users. Furthermore, having an open-mind and willingness to learn are also seen as increasingly important for staff.

Many companies are investing in significant training, based on the specific needs of their staff. There is also a key role for professional bodies in providing relevant training for members, as well as updating qualifications so that they reflect changing roles in accounting and finance. Most importantly, individuals need to be proactive in seeking out new skills and seeing how these new capabilities will benefit their career opportunities. However, the profession also needs to recognise that not all accountants will be willing or able to make this transition.

## VALUE PROPOSITION OF FINANCE

In a world where the core transactional role of finance is largely automated, what will the new value proposition of finance functions cover? And what tasks will accountants do? These questions are fundamental for the profession to consider over the coming years.

Many finance functions are already shifting their focus to higher-value work by providing more insight from data and working closely with business functions. Accountants can be well placed to identify good business questions that data can help to answer. They can ask some challenging questions about the integrity or accuracy of the data, and can recognise the risks of over-reliance on complex models. They can interpret results and connect the dots between different parts of the business.

But there are other elements of the potential value proposition that could be developed more deeply. For example, some of our interviewees highlighted how finance is the 'glue' of the organisation. It is where all processes and data ultimately come together. As a result, accountants can have a unique view of the end-to-end operations of the business and finance can be a powerful driver of process improvements across the wider organisation. Playing a stronger role in data governance can also draw on the natural strengths of accountants - such as attention to detail and focus on quality and standards - while drawing on their broad business understanding.

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## ***Resources on technology and the profession***

ICAEW recognises the opportunities and challenges to the profession raised by new technologies such as AI, blockchain and big data. Through good use of technology, chartered accountants can support businesses more effectively and contribute greater value to the economy and wider society. The opportunities presented by technology apply to all parts of the profession, from small to big organisations, and across business and practice. Therefore, ICAEW puts a strong focus on helping members to achieve the benefits from technology and developing a deep understanding about how technology is changing the profession around the world.

The Tech Faculty leads ICAEW's research and practical guidance in this area. The faculty focuses on the most important new technologies and related issues for the profession, such as AI, blockchain, cyber security, data and ethics, and collaborates with partners around the world, including governments, other professional bodies and the technology sector, as well as accountancy practices and businesses.

Relevant publications include:

- Providing leadership in a digital world (which outlines the Tech Faculty's research approach)
- Artificial intelligence and the future of accountancy
- Blockchain and the future of accountancy
- Big data in Chinese businesses (in partnership with SNAI and Inspur)
- Digitalisation of tax: international perspectives
- Digital transformation in finance functions: ASEAN and UK perspectives (in partnership with ISCA)

ICAEW provides an e-learning suite for its members, Finance in a digital world, and its Data Analytics community offers more specialist resources for members.

ICAI has constituted the Digital Accounting and Assurance Board (DAAB) to foster a cohesive global strategy on aspects related to digital accounting and assurance, through sharing of knowledge and practices among ICAI members. DAAB is endeavouring to identify, deliberate and highlight issues in accounting (including valuation) and assurance (including internal audit) in the digital world.

DAAB is focusing on issues arising from the high pace of digitisation, including the use of artificial intelligence and big data analytics in audit, relevance of sampling, valuation of data as an asset, impairment testing of digital assets, insurance of data (valuation and premium setting), etc. The board is taking up initiatives to develop the knowledge base through position papers and articles on issues relating to the impact of technology on accounting and assurance.

Initiatives to position the profession for opportunities in the digital era include:

- Scalable, employable and updated post qualification course on Information System Audit (DISA)
- World class training to members on Forensic Accounting and Fraud Detection (FAFD)
- Imparting hands-on training through Forensic Labs
- Evolving firms into thriving digital practices by providing leading technology solutions
- Research on Emerging Technologies – Artificial Intelligence, Cloud Computing and Robotics
- Executive Development Program on Blockchain Technology
- Digital Competency Maturity Model for upgrading firms in digital landscape
- Webinars on strategies and approach to adopt technology in assurance services
- Research on embedding the understanding and use of technology in accounting and assurance services.



## ICAEW TECH FACULTY

ICAEW's Tech Faculty is a leading authority on technology and the finance profession. It provides its members with information that allows them to make the best possible use of tech and keep up to date with tech issues and developments. The faculty also works to further the study of the application of tech to business and accountancy, including the development of thought leadership and research. Membership is open to finance professionals with an interest in technology – to join visit [icaew.com/jointechfac](https://icaew.com/jointechfac)

There are more than 1.8m chartered accountants and students around the world and 186,500 of them are members and students of ICAEW. They are talented, ethical and committed professionals, which is why all of the top 100 Global Brands employ chartered accountants.\*

ICAEW promotes inclusivity, diversity and fairness. We attract talented individuals into the profession and give them the skills and values they need to build resilient businesses, economies and societies, while ensuring our planet's resources are managed sustainably.

Founded in 1880, we have a long history of serving the public interest and we continue to work with governments, regulators and business leaders around the world. And, as an improvement regulator, we supervise and monitor over 12,000 firms, holding them, and all ICAEW members and students, to the highest standards of professional competency and conduct.

ICAEW is proud to be part of Chartered Accountants Worldwide, a global network of 750,000 members across 190 countries, which promotes the expertise and skills of chartered accountants on a global basis.

We believe that chartered accountancy can be a force for positive change. By sharing our insight, expertise and understanding we can help to create strong economies and a sustainable future for all.

[www.charteredaccountantsworldwide.com](https://www.charteredaccountantsworldwide.com)  
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## ABOUT THE INSTITUTE OF CHARTERED ACCOUNTANTS OF INDIA

The Institute of Chartered Accountants of India (ICAI) is a statutory body established by an Act of Parliament, viz The Chartered Accountants Act, 1949 (Act No. XXXVIII of 1949) for regulating the profession of Chartered Accountancy in India. The Institute functions under the administrative control of the Ministry of Corporate Affairs, Government of India. It is one of the largest professional bodies of Chartered Accountants in the world, with a strong tradition of service to the Indian economy in public interest.

ICAI has contributed immensely in the field of education, professional development, maintenance of high accounting, auditing and ethical standards in furtherance of the profession of Chartered accountants, which is recognised globally. Since 1949, the profession has grown leaps and bounds in terms of members and student base.



\* Source: CAW, 2020 - Interbrand, Best Global Brands 2019