AUTOMATION: THE NEXT FRONTIER

BDO'S NEW ECONOMY
INVESTING IN... AUTOMATION
For our inaugural Investing In… report, we commissioned YouGov to survey more than 200 Chief Financial Officers (CFOs) and Financial Directors (FDs) from businesses across key regions in the UK (North West, Yorkshire and the Humber, Midlands, London and South East and Scotland) to understand how they perceive, prioritise and invest in automation.

Automation can mean different things to many people. For the benefit of clarity, in this study we have defined it as:

The method or system of operating or controlling a process by highly-automatic means through the use of technology. This will likely involve introducing a new system which uses machines to either replace or support physical labour or non-highly-automatic technology or to create new processes which were previously impossible before the advent of automation. For example, automated warehouse processes, creating an automated check-in service at reception, automated customer service line and automated transcription services.

In addition, we used linguistic analysis software to explore how companies are talking publicly about automation. To do this, as a general barometer, we’ve examined the annual reports of the FTSE100 to identify trends and common themes, in particular looking at how these compare with the responses to YouGov from businesses across the UK.
SECTORS

- 21% Manufacturing
- 16% Professional services
- 12% Technology and media
- 8% Real estate
- 6% Natural resources and energy
- 6% Retail
- 3% Shipping and transport
- 2% More than £1BN
- 4% £501M-£1BN
- 14% £101M-£500M
- 10% £51M-£100M
- 10% £21M-£50M
- 9% £5M-£10M
- 6% £2M-£5M
- 2% £1M-£2M
- 1% £500K-£1M
- 1% Less than £500K

ANNUAL BUSINESS TURNOVER
Automation has the potential to be one of the great generational shifts of our time. While fraught with potential implications on both a macro and micro level, its promise of significant business – and personal – efficiencies will likely be hard to ignore over the long term. The human mind is brilliant, and technology is brilliant, so I take the stance of considering just how brilliant the two combined can be.

Already we’re seeing businesses automate all, or part of, key processes in order to reduce costs, while in our homes some people are becoming increasingly reliant on voice assistants in order to automate mundane tasks, such as creating shopping lists.

It’s with that context that we have decided to explore automation in this report. Investing in… Automation is the first in a series of New Economy reports examining the views of CFOs and Financial Directors on some of the biggest issues of our time in order to draw conclusions about the future role they will play.

The extent to which our finance leaders embrace – and, more importantly, invest in – something like automation will shape, and indeed determine, its future.

With that in mind, we want to understand how these leaders view it as an investment priority, where in particular they are directing spend in the broad category of automation and, more philosophically, where they stand on what has become a key debate: is automation more of a threat, or more of an opportunity?

Above all else, what is clear is that automation is the next frontier for business. Across regions, and across sectors, high-growth, entrepreneurial businesses are doing more than just dipping their toes in the water. No longer will employers be seeking certain levels of intelligence quotient (IQ) and emotional quotient (EQ) in their workforce, but the need for high levels of digital quotient cannot be ignored.

As we go on to discuss, how businesses manage this next generation of automation will be key. There’s no doubting it will be the future of the new economy.
Automation could have a transformative impact on businesses. But businesses will arguably be just as important in deciding its ultimate success or failure.

While the sophistication and reach of artificial intelligence, robotics and computing have continued to expand in recent years, technology has both enabled and restrained business executives, particularly in what we call the UK’s ‘economic engine’, which comprises the regions’ high-growth and entrepreneurially-minded mid-sized companies.

In the case of enabling, technological advances have already automated many previously repetitive, labour-intensive and monotonous processes. Businesses may benefit from employees spending less time on routine tasks, focusing instead on those requiring ingenuity and enterprise.

Yet in the case of restraining, existing employees may be unwilling or unable to adapt to the new tech-driven environment. Training can be a costly but necessary expense – 4 in 10 (39%) respondents have invested in this recently. And new technologies may render some jobs obsolete.

This dichotomy, along with the undoubtedly significant societal impact automation will have, explains why businesses are often tentative, even nervous, about automation. But they will be crucial in determining its true success. If automation is to thrive, it needs to be accepted by the corporate world.

At BDO, we recognise and empathise with this tension between anticipation and uncertainty. We wanted to explore how leaders of the UK’s economic engine view automation and its potential in order to help them navigate the opportunities it brings and to provide practical insights to help them prepare for this new frontier. Are they embracing it by committing significant funds to its deployment? If so, what tasks are they automating and how? Are they trying to help their workforce cope with and benefit from automation?

In short, is automation a threat or an opportunity?
AUTOMATION
THE NEXT GREAT TECHNOLOGICAL SHIFT

If you examine the biggest technological innovations of recent years, progress has often been slow. Products, platforms and processes now critical to our daily lives did not just appear overnight to immediate acclaim and widespread acceptance. The major technological shifts of our time have taken even longer. The great irony is that even the advent of electrification was not a lightbulb moment.

The pace of acceptance for automation from businesses in the UK is, paradoxically, fast and glacial at the same time. It will likely result in some of the biggest technological innovations during the course of the next few decades, while also causing disruption and the kind of societal shift which could have an impact in a matter of just a few months or years.

But while this great wave of automation may take time, and we do not yet know what it will ultimately look like, what is clear from our research is that its adoption is well underway, and it is already having an impact on one key component of society: the workplace.

From customer support to accountancy and finance functions, businesses across the UK – from Yorkshire and the Humber to the North West, and from retail to manufacturing – are automating crucial processes such as customer support and employee help desk support. Of those who have, over half said they had automated accountancy and finance processes (57%) and day-to-day employee operations (53%). In fact, just 13% of companies have elected not to automate all or part of a key business process in the past year. Moreover, when looking at the FTSE100 companies, two thirds address automation in their latest annual reports.

Spending is also being allocated to investment in automation. CFOs and FDs are allocating on average 8.6% of total company spend to automation. Sectors like professional services and construction are in the vanguard, investing money in both new products and staff training which have automation at their core.

While adoption may be cautious – as we show later – the numbers, such as half of businesses automating all or part of their accountancy and finance processes, demonstrate that businesses are doing more than just dipping their toes in the water.

Automation is creeping up on us. This is no ‘big bang’ moment. But history tells us these are rare. Automation has the potential to be the next great technological shift of our time. It is an opportunity for the UK’s economic engine. Our research suggests it is just getting started.

“Automation makes things simple and easy and reduces human error.”
CFO, PROFESSIONAL SERVICES
AUTOMATION
THE NEXT GREAT TECHNOLOGICAL SHIFT

UK LEVELS OF AUTOMATION

1. Businesses which have automated a key part of their business in the past year
2. Percentage of businesses that have increased spend on training as a result of automation
3. Percentage of businesses who plan to automate all or part of this process with the next year

SECTORS EMBRACING AUTOMATION

54% CONSTRUCTION
50% LEISURE AND HOSPITALITY
45% PROFFESSIONAL SERVICES
45% TECHNOLOGY AND MEDIA
40% MANUFACTURING

50% ACCOUNTANCY AND FINANCE PROCESSES
38% OFFICE INFRASTRUCTURE
32% CUSTOMER SUPPORT
28% WAREHOUSE PROCESSES

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MAN V MACHINE

‘Metropolis’, ‘I,Robot’, ‘Ex-Machina’. It is easy to find popular films that paint a dystopian picture of automation and robots in society. That same picture has often functioned as the backdrop to the business automation debate too, with the assumption that it will lead to job losses, reductions in workers’ skill sets and – bleakly – a lonelier, less interactive workplace for employees.

However, our research has shown that senior leaders of businesses across the UK are not as concerned about automation’s impact as you might suppose. More than two-fifths of CFOs predict that jobs at their business will be impacted due to increased automation. But, importantly, around half of these individuals think the impact will be positive, with the creation of more full-time jobs.

On top of this, businesses are also exploring types of automation that until recently were seen as something for the future: robotics and artificial intelligence. A quarter (24%) of businesses have implemented robotics in some way, and a third (31%) have developed artificial intelligence, with London and the South East and Scotland leading the way in both forms of technology.

With a significant number of CFOs and FDs having already invested in automated processes for their businesses, you could infer that a natural consequence would be a decline in the breadth of employees’ skill sets. But it is clear from our research that CFOs and FDs are working hard to develop these skills, with two-fifths (39%) investing in further training to facilitate better understanding of and interaction with automated processes.

There are stark differences between differing British regions which are investing in training and those that are less inclined to do so. Yorkshire and Humber regions are most committed to investment in training (nearly 50% of businesses) compared to Scotland, where just 34% of businesses are ensuring employees are equipped to tackle the brave new technological world.

So, while the film industry might like to depict robots and automation as negative, the majority of businesses’ finance heads clearly think otherwise. There is an impact, of course. But for British businesses, it is currently seen as a largely positive one.

“It will open up opportunities in other areas… it provides the opportunity for people to learn new skills.”

FINANCIAL DIRECTOR, MANUFACTURING

“It will likely put jobs at risk as humans are replaced by machines.”

FINANCIAL DIRECTOR, PROFESSIONAL SERVICES
Earlier this year, a report by the House of Commons Select Committee for Business, Energy and Industrial Strategy (BEIS) concluded that "the problem for the British labour market and our economy is not that we have too many robots in the workplace, but that we have too few."\(^1\)

The report was the outcome of an investigation by the Committee into what can and should be done to tackle the UK’s productivity crisis. Can robots solve it? The Committee thought so, at least in part. But when it comes to CFOs and FDs of businesses in the UK, how do they feel about an increasingly automated workplace?

Our research has found that British businesses are split down the middle when it comes to automation. 49% of businesses see it as an opportunity for their business, with almost all respondents who see automation as an opportunity recognising the efficiencies and cost savings that it brings. A Financial Director from the manufacturing sector notes that automation "is reducing inefficiencies", while a Financial Director from the medical sector said that automation "increases profit and efficiency".

Automation supposedly delivers the holy grail for business: lower costs, increased efficiencies and, ultimately, improved productivity. But if this is the case, the fact that just under half of all businesses see it as an opportunity appears low. Many are put off by the perception that automation might lead to job losses. For example, one Financial Director expressed the importance of people in their business: "I think in our business it's not about reducing efforts through automation. In our business it is all about people."

Within sectors and regions, there is even more variance. In the retail sector, 42% of CFOs and FDs see it as their top priority in the next five years, compared to just 15% who say the same for the course of the next year. Similarly, attitudes in the North West region change dramatically, with the number of CFOs and FDs citing automation as the number-one investment priority quadrupling from 5% during the next year to 20% in five years’ time.

Of half of CFOs and FDs are very aware that automation is a necessary and long-term investment for their businesses. Yet they are not rushing towards it at breakneck speed. Certainly, change is underway, and it is clear there is an appetite to do more. What seems likely is that British businesses will start to embrace automation with even more enthusiasm in the coming years.

AUTOMATION
ROBOT WARS OR A BRAVE NEW WORLD?

KEY TAKEAWAYS FOR BUSINESSES IN BRITAIN:

The UK’s economic engine is waking up to automation - invest now to better understand it and, potentially, avoid falling behind.

Automation will be a consistent theme of the new economy in the next year and beyond. While 11% of CFOs see automation as the number-one priority for the next year, that figure jumps to more than 20% when looking across the next five years. It is a huge opportunity for ambitious, entrepreneurially-spirited and high-growth businesses. Those that do not invest, be it through spending money on new processes or at the very least on research into the area, risk falling behind.

Embrace, don’t ignore, the robots.

A surprising number of businesses in the UK’s economic engine have already started using robotics. Respondents have highlighted how robots are better able to perform some critical business processes than humans.

Don’t just invest in automation, invest in your people too.

4 in 10 CFOs and FDs say that automation is resulting in increased spending on employee training as a result of these new technologies – but this cannot happen overnight and must be planned well in advance.

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The UK economy is at a crossroads. New technology, new international relationships, new markets and new politics are all contributing to uncertainty for UK businesses.

To enable the UK to move in the right direction with confidence we need to see the emergence of a ‘new economy’ – an economy which helps the UK thrive post-Brexit by making the most of its mid-sized businesses, by balancing growth by sector and region.

For more information and to stay up to date on our latest thoughts and insights visit our New Economy microsite: https://neweconomy.bdo.co.uk/

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- **17 LOCATIONS**
- **350 PARTNERS**
- **5,000 STAFF**
- **97% OF OUR CLIENTS WOULD RECOMMEND US**
- **2018/2019 RESULTS: UP 25% TO £590m**

**BDO INTERNATIONAL**
- **US$9 billion 2017/2018 REVENUE**
- **162 Countries**
- **1,600 Offices**
- **80,000 Staff**

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1. Client listening Programme (December 2018 BDO LLP)
2. Gross revenues for BDO LLP. These are unaudited figures

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**ABOUT NEW ECONOMY**

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