



searchlight

The New Era: Making the most of technology

Aligning business change with technology
investment in UK manufacturing



searchlightconsulting.co.uk

About us

Searchlight works with multiple organisations to help them get a better return on their investments in people, processes and technology.

Experts in strategy alignment and IT-enabled change, or projects relating to digital transformation and business improvement, Searchlight helps clients grow, develop new capabilities, and future proof their organisations.

If the issues addressed in our report ring true to your company, contact us today for expert help with moving your business to the next level.



Introduction

Barclays Corporate Banking recently called on the UK manufacturing industry to embrace and invest in smart technology before it falls behind the global competition.

In a major report on the sector¹, Barclays cautioned that failure to adopt fourth industrial revolution (4IR) technologies such as big data, analytics, artificial intelligence (AI) and automated systems will represent a lost opportunity for manufacturers. It also predicted that 101,000 jobs could be created in the sector over the next decade if smart factory technologies are embraced and implemented.

In an increasingly globalised business world the manufacturing industry is in danger of falling behind organisations, many of which are based in the Asia-Pacific region, that have already placed their focus in this area. Barclays said that 83% of manufacturers are confident about Britain's ability to compete on an international scale over the next five years, yet many are putting off necessary investment in transformative tech and blaming a lack of skilled workers for the delay.

Technology investment and upskilling are not just required on the factory floor. Like in many other industries, notably retail, banking and logistics, there is a significant opportunity for manufacturers to explore digital solutions and systems that aid business processes, boost internal and external communication, and attract customers.

BREXIT CAUTION

Is Brexit casting a shadow or holding back pent-up demand, waiting to unleash businesses' shackles? There are clearly divided opinions on the subject – Britain's planned departure from the European Union is causing huge uncertainty within the manufacturing space, and it is against this backdrop that Searchlight Consulting conducted its research into technology and manufacturing.

In this report, we hear from leaders and ex-leaders of a number of well-known UK manufacturing firms, spanning food, drinks, and life sciences, about how they make the most of their technology investments from a business perspective. It's crucial in this time of rapid transformation that, where there is investment in tech, it is to support what is best for the organisation and not a case of tech for tech's sake.

We learn about the challenges and opportunities faced in terms of disparate systems and IT/business misalignment, and upskilling the workforce, as well as about the successful enterprise technology management techniques they've adopted during this era of digital transformation, and what they believe lies ahead for manufacturing.

¹ https://newsroom.barclays.com/r/3543/the_time_is_now_for_uk_manufacturing_to_invest_in_smart

Manufacturing and the fourth industrial revolution

Economic modelling, included within the Barclays report, predicts that manufacturers could boost the sector by an additional £102 billion per year by 2026, if 4IR sees greater adoption and investment over the coming years.

Fitting into the remit of 4IR technology are Internet of Things-style sensors, big data and analytics solutions, energy self-generation, 3D printing, machine learning and other forms of AI. Some 78% of manufacturers have committed to investing in automation over the next five years, according to Barclays, and more than half the respondents see a greater use for 3D printing on the horizon.

While UK manufacturers are broadly confident about future UK competitiveness, when asked about how it measures up internationally, the nation was ranked behind China, Japan, South Korea, Germany and Taiwan. Barclays said there was also a sense that the UK invests less in 4IR technologies than its global counterparts.

Rob Pritchard, former CIO at global drinks company Britvic, says the evolution of technology on the factory floor means it should now be of greater interest to the CIO due its potential to reduce costs for their organisation and to be a tremendous source of information to support decision making.

“For a CIO of a consumer goods company, until four or five years ago, whatever went on down on the factory floor wasn’t a major concern,” he explains.

“Micro-second stoppages on production lines and understanding what causes them, and all the data to see what’s really going on, can help drive micro gains and percentage improvements. This is all within the CIO’s remit now, as it provides a chance to lower the cost of manufacturing and build more margin into products.”

He adds: *“Digital technology right down on the factory floor is hugely important for this sector.”*

Based on the Barclays research, the indications are that the development of the connected factory is on the radar of many of the large manufacturing businesses based in the UK – even if it hasn’t progressed to a substantial level

yet. The likes of online grocer Ocado in the adjacent retail space, where sophisticated drones, robotics and predictive analytics systems provide the technological core to its fulfilment centres, provide positive examples.

This type of technology usage is all part of a change in processes by manufacturers around the world. It means IT departments are increasingly placing their focus on the nuts and bolts of the factory floor, because they now have the tools required to measure work accuracy and boost efficiency in these areas.

MARS SETS THE BAR

In the manufacturing space, chocolate maker Mars is making the right noises in terms of aligning tech investment with business processes. Across its global network it is automating its sites, while still making the relevant hires it needs to ensure it knows what to do with the data generated by this new technology.

For example, over the last year Mars has talked up its robotics systems at one of its French distribution hubs, saying the new capability significantly speeds up the packing and preparation process of its food, confectionary and pet food ranges. But at the same time its US operation is clearly addressing the business case for such investments.

Sandeep Dadlani was appointed Chief Digital Officer,³ responsible for working with Mars’ global business segments to drive its digital transformation agenda and deliver effectiveness and efficiency to the company’s existing technology platforms. Sandeep, who succeeded the retiring CIO Vittorio Cretella, has brought expertise in new data analytics and automation from his time at Infosys where he helped embed AI and machine learning capability into the business processes of large global organisations

Mars also recruited a Chief Digital Demand Officer in 2017. George Corbin is responsible for leading the company's digital demand transformation, focusing on consumers and customers, as well as ensuring its e-commerce and digital businesses are integrated.

Corbin is also building relationships with global digital commerce partners to drive Mars' approach to innovation, working closely with the leaders in the global business segments to transform the manufacturer's digital demand approaches.

Pritchard: *"There was always a cut-off point in the information in the systems used for planning production and managing inventory once it's come out the end of the production line. Now scope of central IT is starting to come from within the actual manufacturing process lines."*

From his work as visiting professor at Birmingham City University's faculty for technology and engineering, Pritchard also says there is increasingly *"a strong need for engineers to understand technologists and vice versa"* as these disciplines start to blend.

That line between what engineers, technologists, maintenance, and the central IT team look after in an organisation is blurring, because of the way companies want to use the information on the factory floor for business gain. It represents a real change in operations for the wider manufacturing industry.

2 <https://europe.xpo.com/en/news/mars-and-xpo-logistics-transform-supply-chain-innovative-robotics>

3 <https://www.prnewswire.com/news-releases/mars-bolsters-digital-innovation-with-two-major-appointments-300475727.html>

The need to embed agility

Most large manufacturers will operate with a core central system for production, supply chain and finance management, and general business processing. Typically, in medium-large business manufacturing, it will be an ERP package (such as SAP, Oracle or Microsoft Dynamics). Despite their crucial role in helping organisations function day to day, these highly integrated business suites don't always lend themselves to quickly supporting a change of strategy or fresh business direction.

It is vital to build in agility around the core system function, and there are various ways of approaching that, according to Pritchard. In an era of digital transformation and fast-changing consumer trends, it is clearly prudent to have in-built flexibility in processes and systems to support business-led IT change.

He says: *"There is still an important place for the likes of SAP, but it's within the core of the business where change is slow and steady, and where leaders are going to want to drive efficiency through better supply planning, better network optimisation, better demand management and processing – and doing so in a way that minimises working capital. Every business is always going to want to do that."*

CEOs planning their strategies need to be aware that technology is a leveller in today's business landscape, according to Stefan Barden, former CEO of Northern Foods and UK CEO of Heinz and Brakes.

Barden, who is now developing a non-executive portfolio across retail, technology and manufacturing, notes: *"With apps you can do many things that ten years ago you needed deep technical competence to do – now, it's very easy for small companies to do big things."*

"A 50-strong company can have the same level of sophistication as organisations of 1,000-10,000 people. I think technology is enabling smaller and smaller companies to challenge big companies."

Barden's comments are supported by Pritchard, who says this phenomenon calls for a change in attitude among the larger manufacturing enterprises – many of which, he notes, have a mature core but *"a whole host of little business segments that want to act like start-ups"*.

"Think like a start-up here not like a large business CIO," he argues.

"Be prepared to make investment that you'll turn off and throw away. Think in much shorter time periods, think in terms of days and weeks, not years, for projects. Think in small, low cost, agile [cloud] platforms."

A successful CIO today will need to have *"different personas"* to reflect the different parts of their business, he argues, adding that this will support agility and ensure IT becomes an enabler in the parts of the organisation where it is needed.

WARBURTONS BAKES IN FLEXIBILITY

Bread and baked goods manufacturer Warburtons saw a need to revamp its supply chain recently, and looked for newer tech companies to help get more from its central SAP system.

Warburtons has operated with a SAP ERP for many years, but it has rapidly been adding more flexible integrated solutions to its core functionality, including promotional planning software from FuturMaster which it says increases forecasting accuracy and reduces administrative tasks for its workforce.

"Given that we produce over two million wax-wrapped loaves, wraps, crumpets, pancakes and bread rolls every day, a 6% increase in forecast accuracy is a massive achievement," explains Iain Bishop, Senior Commercial Forecast Manager at Warburtons.

“We can see exactly how many loaves will be required by every retailer for the next day, week or month.”

Using a team of three planners, who between them manage up to 2,500 forecasts each day using software, the company predicts that it has saved over £0.5 million in the first two years of using the technology. Clearly a tech decision made with business gains in mind.

TIME TO THINK B2B2C

Most manufacturers operate on a business-to-business (B2B) model. But with end-consumer requirements changing so quickly, and new technology having such a dramatic impact on the way people live their lives, they are increasingly urged to think of the end consumer first and foremost.

Such a mindset can keep manufacturing companies fresh and relevant, and ensure their products, business processes and strategies continue to drive the success of their customers.

Barden says: *“If you’re B2B, think of yourself as B2B-2C [to consumer].”*

“Start with the consumer and think how technology can help you win. A successful strategy will always have IT underpinning it, but IT is the last thing to think of – not the first.”

4 <https://www.essentialretail.com/analysis/59bb96250fda0-five-retailers-and-brands-shaking-up-their-supply-chain-tech/>

A fine balancing act

All businesses targeting growth are seeking an optimal way of taking out supply chain costs while still investing in the right areas, including technology, to move their organisation forward.

No-one has the ultimate answer and different tactics work for different businesses, but there are plenty of resources for manufacturers to tap into as they look to best align technology investment with business strategy. It might be internal focus groups, industry forums and events, or reading the trade press for inspiration, while others opt for highly practical advice from specialised consultancies.

The key is not to consider it an IT implementation, it's to create a business process with an IT aspect. The IT is important, but it's important to work closely with all business leaders to make sure stand alone IT projects aren't created for the sake of it. For major projects like revamping ERP systems, it can pay to look to the consulting community to ensure equilibrium is achieved between business change and delivery of IT technical solutions.

Organisations do not seek to continually invest in enterprise wide transformation, hence often do not have the in house 'know how' to deliver on the 'client' part of the bargain when delivering significant transformation. To use a metaphor – system integrators are the construction companies that will build what 'you' specify, however you would not begin a new build without retaining a specialist that 'architects' your transformation and performs the role of 'building inspector' so you have the – 'right solution, right size, right shape' – ensuring you are ready, willing and able to adopt the new business solution.

Bryan Oak, Director at Searchlight Consulting, which works on business transformation projects with organisations in manufacturing, retail, wholesale & distribution, hospitality and leisure, says consultancies need to provide an independent and impartial guide, drawing on their exposure to the broader market.

"One area of our offer provides advice on optimising the use of current systems to run your business, another is guidance on embracing digital technology to enhance your business, and the last bit is how to make sure you are thinking strategically about products and services, and the way tech and data will evolve your future offerings."

For Barden, it's crucial that the wider organisation is taken on any transformation journey with the senior team. In his experience, success and financial stability doesn't come solely from top-down instruction and commands.

In food manufacturing that might mean explaining to chefs across multiple food preparation sites why they have to choose from a reduced range of ingredients because of the implementation of new centralised ways of working. In automotive manufacturing, it might pay to get factory-floor feedback before introducing virtual reality headsets into the design and manufacturing process, as global organisations in that space such as Volvo and Audi are currently doing.

"You have to create a compelling goal and vision for people to buy into," says Barden.

"People will then get behind it because they understand 'the why'. If you start by talking about 'the how' then everyone gets deeply worried about their jobs."

Internally, everyone knowing their specific roles and how they fit into the bigger picture can be a powerful way of ensuring digital transformation, and IT-related change can then roll on with the wider business's interests at heart.

Pritchard notes: *"Part of the job of the CIO is to help senior colleagues around the table understand that technology needs to be built into the early thinking of new company initiatives."*

"If, for example, a company is going to test a franchise operation in an overseas territory, there will be IT costs – they need to get that built in to plans early. Try and avoid surprises."

Traditionally, it has been a requirement for those in senior IT positions to reduce company costs and optimise their business function. Analysing the cost to serve and looking out for duplication or areas where technology is over-servicing are all part of their job specification.

“There’s always a need for additional services and skills that the CIO needs to somehow fund, so you’ve got to eat away at baseline IT costs and treat that as part of your mission – not as something you do every four or five years when a new CFO joins,” Pritchard adds.

“You’ve got to be continually working on that to create head room in budgets to support the costs associated with new innovation.”

Skilling up, and the impact on jobs

The combination of many traditional engineers retiring, only a small pool of new talent currently available in the UK to replace them, and a world where increased digitisation means new skills are required, presents some problems for the manufacturing sector.

Figures from the Institution of Engineering and Technology (IET)⁵ highlight the existing skills gap in the UK. Accompanying research suggests that businesses where these skills are required, such as manufacturing, must change their processes to succeed.

Nearly two-thirds of the engineering and technical workforce surveyed by the IET at the end of 2017 said the recruitment of engineering and technical staff with the right skills was a barrier to achieving their business objectives over the next three years. Three-quarters of respondents noted that tackling the skills problem is fundamental to making the government's Industrial Strategy viable.

Some 78% believe that digital technologies and automation in the UK in engineering and technology sectors will advance rapidly over the next five to ten years, yet only 30% have firm plans to introduce or extend their use of digital technologies in the next three years. These statistics, when viewed alongside the Barclays research, which found 43% of manufacturers are yet to invest in 4IR technologies like artificial intelligence, suggest companies are still keen for a more compelling business case before they invest in technology.

Where there are plans to increase digitisation of their processes, 85% of businesses acknowledged they will have to recruit people with new skills, up-skill their present staff, or do both. This supports the Barclays research that indicates that there could be many more roles created in manufacturing as a result of growing digitisation.

Pritchard argues there has already been an up-skill on the factory floor in recent years, but agrees there is a gaping hole in terms of locating all the talent required.

"What would traditionally be slightly lower skilled technician level manufacturing roles are starting to be elevated into engineering roles, so the [technology] skill level you need in a factory is higher than it would have been five years ago," he explains.

"In the next five to ten years with more digitisation in the factory environment, the skill level will increase hugely."

RIGHT ROLES FOR THE RIGHT PEOPLE

Bakery goods business Greggs, which crosses the divide between manufacturing and retail, announced in its interim results for 2017 that there would be some job losses as part of its continuing multi-year supply chain and systems revamp programme.⁶

Investing in a SAP ERP system and several associated modules is part of the company's move from local baker to national food-on-the-go retailer with its own centralised manufacturing facilities; 2018 is the fifth year of a transformation period expected to be completed in 2020.

Greggs said job losses would be kept to a minimum by re-deploying staff where possible in retail and distribution, and following a path of voluntary redundancies where it can. But this is one example of how businesses of all types must manage workforces with care as they make technology investments and embark on restructuring journeys.

At a senior level there will be a need for new roles to be created to help organisations deal with rapid change, and to build links between senior management and the wider organisation or, in some cases, the executive team and consumers.

TECH AND PEOPLE INVESTMENT ENTWINED

As manufacturing organisations embark on technological investments, be it core systems or 4IR technology on the factory floor, the need to balance it with the right people power has arguably never been more challenging. This is because the true benefit of new technology in manufacturing comes in the ability of the organisation to integrate it into

new or existing business applications and exploit the information generated for commercial success.

The right recruitment strategies need to be devised in association with technology strategies, underlining a need for a joined-up approach.

Mike Rigby, head of manufacturing at Barclays, says the bank's research shows that manufacturers see the benefits of this cutting-edge technology. He argues there are numerous examples of companies starting to match their intentions with investment, but cautions that other things need to be considered.

"We are at a watershed," he explains. "While the outlay may seem expensive for many at a time of uncertainty, the industry needs to raise its levels of investment in the skills and infrastructure needed to harness these new technologies and keep us more productive than other international manufacturing hubs. Businesses that make the leap will be rewarded."

Rigby says that with Sterling weaker than in previous years as a result of Brexit uncertainty, but with a clearly robust appetite from domestic and international markets for British goods, the manufacturing industry *"is in a strong position to take advantage of the opportunities investing in fourth industrial revolution technologies can bring"*.

⁵ <https://www.theiet.org/policy/media/press-releases/skills-survey-2017.cfm>

⁶ <https://corporate.greggs.co.uk/sites/default/files/180227%20Greggs%20-%202017%20Preliminary%20Results.pdf>

Summary

There's a sense that many areas of manufacturing are behind other industries in their technological evolution. In fact, that feeling pervades across much of the B2B landscape in the UK. But there are many examples of companies driving forward using new systems and technology-enabled processes.

Today's manufacturers have a chance to advance their output and take advantage of the wave of innovation in the tech space to establish a strong base that can support a new era for the industry, but only if they integrate it efficiently into their business systems.

They can look to adjacent sectors such as retail and e-commerce, or to leading lights in their own space, to see what is possible in warehouses and factories, and understand the benefits of physical and process automation. Industry figures participating in this report urge them to adopt a joined-up approach to their tech and business strategies, as well as more agile working methods.

Relationships between a manufacturing company's CIO/head of IT and the rest of the senior team are crucial too and, increasingly, CEOs and managing directors at these organisations will need to have a greater base level understanding of technology.

As leading digitally-enabled organisations demonstrate to the wider world how their focus on technology, infrastructure and digital initiatives leads to real business success, others will realise it is an approach that brings significant benefits.

"All manufacturers will be different," explains Barden, whose most recent CEO role was at online bikes and accessories retailer Wiggle, which is renowned in retail circles for its sophisticated use of technology during a period of huge international growth over the last decade.

"But in general, start with the consumer and don't do technology for technology's sake. Work out what you need to do to create a market-leading product and then ask how you can leverage technology to help. Then you look at what the competition are doing, how you can get an advantage over them and then look at how technology can help."

Searchlight is working with multiple organisations to help them get a better return on investment from their investments in people, processes and technology.

Director Bryan Oak says the key challenge for today's manufacturers revolves around how they can continue to derive operational efficiencies while still being seen as innovative in the way they deliver their products and services.

"Operational efficiency comes from making sure their back office, manufacturing and supply chain systems are suitable, alongside accessing more information from the factory floor in order to make the right decisions and use this data to improve the way they deliver their business," he remarks.

"Beyond the factory-floor, the innovation dimension either comes from the way they embed technology in their products, or the way they use technology to enhance the customer service and the customer experience in both their selling and support of products after sales."

Contact Searchlight Consulting today to see how we can help you make better business and technology decisions that are aligned to your strategic objectives.

What we've learned

- Manufacturers face huge challenges during a period of significant digital transformation, but with change comes opportunity to drive efficiency and take advantage of new capabilities in technology
- In order to innovate while maintaining healthy margins, manufacturers must: i) identify technology that can support their core functions; and ii) ensure there is part of their organisation dedicated to experimentation and trialling new systems that might provide a competitive edge
- For digital transformation to be successful, senior leadership teams must create a compelling vision for the wider team and bring the workforce along on the ride
- Getting a grip on data is increasingly important for the manufacturing industry. Understanding all data points and using them to fuel business decisions will be key
- Companies must make business-led decisions at all times – there's no use implementing technology for technology's sake
- Manufacturing, like many other industries, needs to solve the engineer/data scientist skills shortage challenge – there is a need for developing new talent to ensure a healthy future for the sector
- Manufacturers – although typically B2B organisations – must develop their products and services with the consumer in mind. Think B2B2C to ensure relevancy and future success

Who we work with

Searchlight Consulting is a business transformation consultancy that helps our clients to align business, digital and IT strategy. We support our clients to deliver change alongside system integrators, often leveraging multi-mode delivery to combine digital innovation and project delivery.

Searchlight clients include many household names including Costa Coffee, FatFace, Wiggle, CRC, Brakes and many more. We have helped our clients establish digital innovation capabilities, supported end to end transformation initiatives and introduced CRM, loyalty and business intelligence solutions.

Searchlight allows organisations to shape programmes and projects, leveraging technology as appropriate, and driving innovation.





At Searchlight we ensure your business and IT strategies are fully aligned and work with you to implement the right technology systems for your business needs.

Contact us at:

bryan.oak@searchlightconsulting.co.uk

 [searchlightconsulting](#)

searchlightconsulting.co.uk