Microsoft

Industry Spotlight

AI in Retail

The UK high street continues to face considerable economic challenges. A study of government data shows that 20,143 retail shops in England and Wales were converted to other uses between 2010 and 2019, with only 14,314 new shops built in that period and a further 8,500 expected to be lost within the next five years.[14] Meanwhile, the retail vacancy rate has climbed to 10.2% (43,302 vacant shops), a four-year high.[15]

Yet despite that, there is also cause for optimism. Retail is far from dead or dying. Instead, physical stores are transforming into customer experience centres and sales are increasingly moving to a virtual space, where the industry is booming. Here the combination of borderless sales and AI optimisation can help businesses grow revenue and drive profits like never before.

Indeed, according to figures from Accenture, retail profitability is expected to increase by as much as 60% by 2040 thanks to AI.[16] Meanwhile, Capgemini

predicts AI will net retailers around $340 billion in annual cost savings by 2022.[17]

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Missing the bus

For retailers who can harness the power of AI, then, the opportunity to gain a competitive edge and secure a bright future awaits. But how many are actually poised to seize it?

As Louise Watkins, Head of Sector Retail, Consumer Goods, Travel & Transport at Microsoft UK, explains: "With customers demanding new, more personal experiences, retailers have to move beyond the perception of AI as just a tool
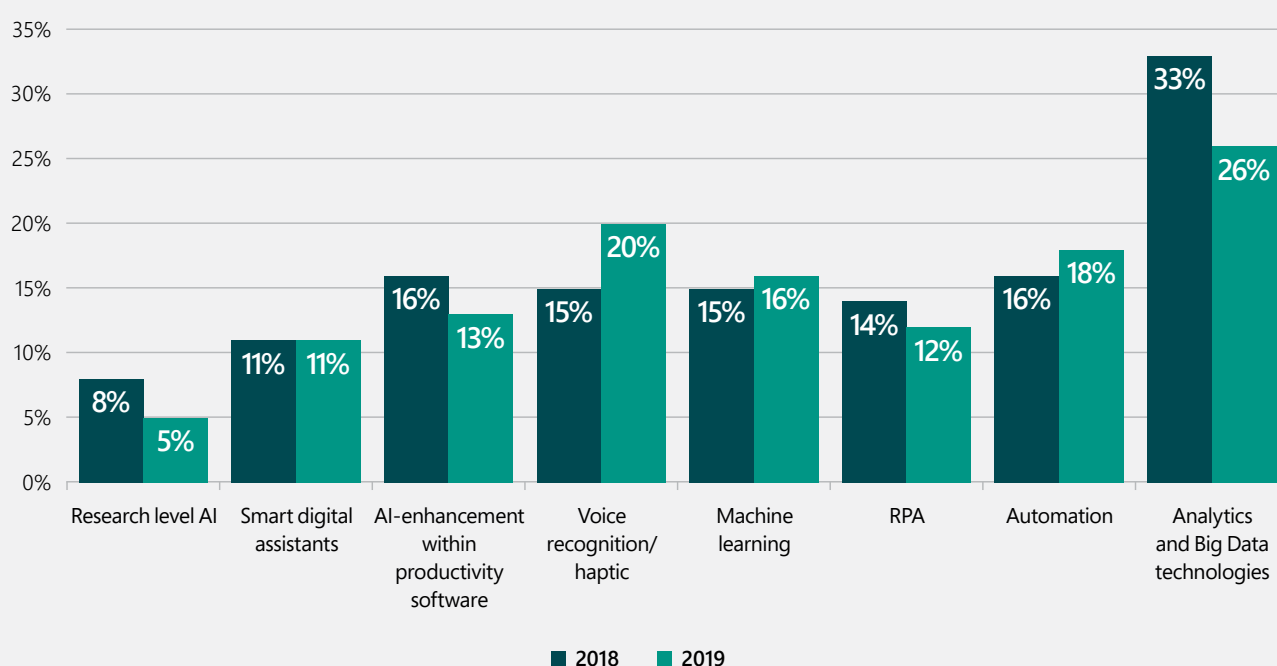
to provide answers. Instead, they need to see it as a way to utilise the insights from the incredible amount of data they capture every day and, in doing so, create ubiquitous, multi-modal, hyper-personalised consumer experiences for all."

Yet our research reveals that, of all the industries we surveyed, retail is perhaps at the earliest stage of its AI-led digital transformation. Currently, more than two in five (43%) retail leaders say their organisation is using AI, compared to a national average of 56%. Crucially, this represents an increase of just 1% since 2018. In some cases, the use of AI technology has even declined. (See Figure 16.)

In other words, while retailers do, by and large, acknowledge AI's potential to enhance business performance and customer experiences, many are either moving too slowly to capitalise on it or, worse, at risk of missing the bus altogether.

Figure 16.

How use of different types of AI has changed from 2018-2019

Type of AI	2018	2019
Research level AI	8%	5%
Smart digital assistants	11%	11%
AI-enhancement within productivity software	16%	13%
Voice recognition/ haptic	15%	20%
Machine learning	15%	16%
RPA	14%	12%
Automation	16%	18%
Analytics and Big Data technologies	33%	26%

A people problem

Interestingly, one of the biggest challenges they face when it comes to adopting and scaling AI is a very human one. Namely, the need to reskill employees to make the most of it. Just one in 10 (11%) employees and one in five (19%) leaders say they have completed training to improve their understanding about how to use AI in their job while only a fifth (19%) of retail leaders say people in their organisation can describe how AI can help achieve the organisation's goals, compared to 25% for UK businesses overall.

Meanwhile, nearly half (44%) of leaders admit to being unsure about how to start preparing employees with the skills they need for the future and just a third (33%) say teams are able to share knowledge and experience acquired from using AI to help each other.

This is clearly a challenge that cannot be solved overnight, particularly in an industry where staff turnover is traditionally high and workforces often seasonal. Yet there is, according to Alex Sbardella, Senior Vice President of Global Innovation at retail innovation consultants GDR Creative Intelligence, a solution out there: "Due to the high-churn nature of the retail workforce, staff are relatively underinvested in and can be lower skilled than other industries. However, this challenge can be flipped on its head because it means there is an opportunity to invest in more intelligent tools to help them. This is an area where retail can actually play to its AI strengths."

Adopting this positive mindset to supporting staff and filling the AI skills gap will likely be critical to retailers' ability to thrive in an AI-enabled future.

The power of data

In contrast to the challenges faced around engaging an often transient workforce, there is a trump card in retail's hand: data. Every time someone taps a contactless payment card, checks out online or joins a loyalty scheme, retailers are given another nugget of information to analyse and act upon.

Unlock the value of this data (albeit responsibly, transparently and in a way that is in keeping with the product or service being sold) and the opportunities to optimise performance and enhance customer experiences are myriad.

This begins with knowing what they want to achieve. What is the business problem they are trying to solve and why can AI help them do it in a way that delivers a tangible benefit for stakeholders across the organisation?

These are questions that the most successful retailers of tomorrow will start answering today. The ones who, in the words of Kyle Fugere, Global Head of dunnhumby Ventures & dunnhumby Labs, "do not see AI as a catch-all for their data challenges but, instead, identify the areas where it can add most value then develop a roadmap with clear outcomes and metrics."

Scaling the right way

As with any organisation, there is one further key question retailers must ask as they seek to scale their use of data and AI technologies too: what do we need to do to ensure we are deploying the technology ethically and in a way that is free of bias?

As Gökhan Meriçlile, Co-founder WeWALK, a mobility project for visually impaired people, points out: "To scale AI, you must have a solution that is both unbiased and statistically possible."

Encouragingly, only a fifth of retail employees (19%) do not trust their organisation to use AI responsibly (although this is still two points higher than the national average.) Yet on the other hand, fewer than half of the industry's leaders (43%) agree they have the capability to identify bias and just a third (33%) understand the steps required to address bias in their organisation when it is observed.

> Only 33% of retail leaders understand the steps required to address bias in their organisation when it is observed.

Perhaps most tellingly, only around a third (34%) understand why their organisation's AI systems make the recommendations they make, thereby making it very difficult for many leaders to judge if the technology is working either effectively or responsibly.

This brings us full circle, back to the pressing need for retailers to close the skills gap when it comes to AI – not just among front-line staff but at all levels of the industry. Do that and they have the chance to cash in on an industry booming with online possibilities. But fail to, and the UK High Street may not be the only place battling to survive.

The expert view

Alex Sbardella, Senior Vice President, Global Innovation, GDR Creative Intelligence

"UK Retail is continuing to go through a period of unprecedented transformation, with reinvention now deemed necessary for business survival. As change becomes the sector's only constant, and retail business leaders increasingly realise AI's potential, we are seeing a growing appetite for the technology across the board.

Fortunately for retailers, there are areas where they have a natural advantage for developing AI. As well as having access to masses of data, consumers' comfort with forms of AI like chatbots has increased a great deal as the technology has quietly matured. Over the next few years, it will be fascinating to see if new areas of AI, such as visual search, can transform the in-store experience too.

Where retailers are struggling with AI is what I call 'the what' and 'the why'. AI projects suffer when retail leaders start with the technology and not the problem they are trying to solve. By doing this you are putting the (shopping) cart before the horse. Any innovation project must begin with the customer or business need before you work out which solution you need. If AI is deemed the right solution, then do your due diligence, get your data in order, your systems and people ready.

In the next five years, I hope to see AI move from being a special project case to an expected part of every business strategy. There is definitely an appetite for transformation, it just needs to be realised."

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Case study:

M&S

Since 1884, M&S has been a cornerstone of UK retail with a longstanding and much-admired reputation for quality, products and service alike. Here, Paul Dasan-Cutting, the company's Innovation Product Owner, explains how M&S is using AI to enhance its relationship with customers even further.

M&S

EST. 1884

What role does AI play in M&S's ambition to be a truly digital-first business?

AI will be central to M&S's strategy in the coming years. If you think about how retailers, and indeed anyone in the modern world is operating, the amount of data being consumed by organisations and individuals is absolutely massive. The datasets being generated simply cannot be assessed and investigated by a single person, which means we have to come up with a set of models to help us interpret that data more efficiently. Doing so can help us offer even better products to our customers and also rethink how we manage our operations.

How is this improving the experience for your customers?

Customer experience is a key differentiator for us. We recognise that more of our sales are going online but 70% of those orders are still collected in store. We have to make sure that customers have a seamless experience however they shop. Our Innovation Framework determines the process we follow for delivering proof-of-concepts into stores. It helps us define the problems we are trying to solve and challenges us as an organisation to stay focused on the customer experience. Essentially, it is the opposite of using technology for technology's sake.

Where do you expect to see the most value for your employees?

I think AI, in some way, shape or form, will be prevalent across most areas of retail. Within M&S itself, the most value it has to add is around our supply chain and our forecasting, looking at big datasets to become more accurate in our product management. A priority for us is to educate our workforce about the benefits of AI in their day-to-day jobs. This includes partnering with Decoded, a data training organisation, to run workshops for 1,000 of our leaders along with an 18-month data science fellowship for 150 colleagues across the company.