IS IT THE END OF THE ERP ERA?
Is the ERP era finally over?

The short answer is “No”. Too many large corporations have invested money, time and labour in ERP systems to discard them any time soon. The longer answer is: “No, but the end is nigh.”

As Paul Blake, associate director, product marketing at GEP, a leading global provider of strategy, software and managed services to the procurement and supply chain functions, explains: “Any system that does not enhance a company’s performance will increasingly become a hindrance and should be rendered obsolete at the earliest opportunity. But this is very, very hard to do, so what companies need to do is to find a way to add the dynamic flexibility required to operate in a Volatile, Uncertain, Complex and Ambiguous (VUCA) environment such as we’re currently experiencing.”

ERP systems were created for a very different corporate environment. Initially created to systematise best practice in – and improve control of – back-office functions, especially manufacturing and finance, they came to the fore in the 1990s and proved reasonably effective until mission creep began to set in. The CFO’s enduring dream of encompassing the entire company’s activities within a single technological structure could prove expensive, time-consuming and problematic, even in traditional command-and-control management cultures. The line between what could be achieved with these systems – and what ought to be achieved for the good of the business – began to blur.

At the same time, there was always something of a “reality distortion field” around ERP. The fault lay not so much in the technology itself as in the way it was applied: for a variety of reasons – not least internal politics and management hierarchies – the system could easily become a fun-house mirror of the real market. That disconnect became more dangerous as digital technology revolutionised the global economy, making first-mover advantage considerably more valuable, driving internal change and circumventing the boundaries that once defined markets. In a VUCA marketplace, best practice is not something that can be built into a system for years to come. Best practice may change in months, weeks, even days.
There is a tipping point in the evolution of every technology where it stops liberating, enabling and facilitating and starts constraining, hampering and restricting. With product life cycles shortening, business practices changing virtually overnight, and companies having to respond swiftly to unexpected social, political and economic developments, organisations need to look beyond past and present to the future. That view is likely to be impeded by traditional ERP systems that encourage companies to lumber on in “business as usual” mode.

“Companies can make themselves more dynamic and flexible by embracing a different model,” says Blake. “Instead of the traditional linear concept of a supply chain, they can create a nexus – out of such core technologies as AI, data lakes and computational power – to help them run a network which will make them more agile and help them create value by collaborating with suppliers, partners and even competitors.”

That, in turn, encourages complacency within the organisation.

“The inertia within traditional systems and ways of working is one of the factors that can encourage resistance to change,” says Blake. “The idea that ‘we’ve always done it this way’ and it has worked reasonably well – especially in those parts of the corporation that have minimal contact with the marketplace – only serves to increase the inertia imposed by the systems. That’s why, when CEOs of these global corporations talk about change, they often use metaphors such as teaching elephants to dance, and turning around a supertanker.”

Many CEOs of large corporations understand that they need to revolutionise the way they do things, but fear that too much change, too soon, could jeopardise revenue. (For a publicly quoted company, judged on its ability to meet investor expectations every quarter, that could prove disastrous.) In reality, many companies’ existing systems are reasonably efficient at making the desired number of units a year, at an appropriate unit cost and delivering them to market at the right time and place. Staff have also invested the time to learn how to use these systems and, by developing the requisite workarounds, make them more effective.

Rather than reinventing the entire supply chain, Blake says, companies can add a layer of technology that leverages cognitive solutions to capture, integrate and stream data across the entire system. One of the resulting capabilities is the ability to effectively create a “digital twin” of their supply network, where scenarios can be modelled, propositions tested and risks assessed. “With AI, and the huge increase in computer capability, companies can now handle huge volumes of unstructured data which will help them to detect – and prepare for – potential bottlenecks, monitor performance and anticipate threats and opportunities,” he adds.
The apparent end of the Cold War in 1990 didn’t just change politics, it changed business. The duel between East and West, in which rivals stood eye-to-eye and waited for the other to blink, was a dynamic mirrored in many markets. In consumer goods, it was Procter & Gamble v Unilever; automotive, General Motors v Ford; aviation, Boeing v Airbus; soft drinks, Pepsi v Coke; and in computers, IBM v Apple.

In 1998, recognising that this bipolar model no longer applied to international relations, the US Army War College coined the acronym VUCA to describe the volatile, uncertain, complex and ambiguous world officers needed to make sense of. The term was soon adopted by many CEOs – notably Paul Polman, who ran Unilever from 2009 to the end of 2018 – as they grappled with the need to provide steady leadership in an unsteady world.

Fast-forward 20 years and a new global economy is evolving at remarkable speed, driven by paradigm shifts in geopolitics (again), technology and demographics.
In partnership with demographics. Barriers to entry are collapsing, and customer preferences are changing rapidly, emphatically and unpredictably, reducing the time companies have to get a new product to market, shortening the lifespan of products and, in consequence, forcing businesses to focus on developing more new products.

The transformational impact of this evolving economy is starkest in the consumer and retail sector. The global Consumer Goods Forum estimates that new, technologically empowered, disruptive innovators are generating virtually all the growth in the fast-moving consumer goods (FMCG) market.

The drastic restructuring of the industry has helped the likes of Dollar Shave Club and Harry’s thrive in the razor market; driven the craft beer boom; and facilitated the emergence of competitors such as China’s platform giants Alibaba and WeChat and India’s consumer goods start-up Patanjali, which have built their success on their in-depth understanding of consumers in their particular regions.

At the same time, this restructuring has wrong-footed many once-powerful incumbents, notably Sears and Toys “R” Us in the US, fashion chain Gerry Weber and department store Galeria Kaufland in Germany, and BHS and House of Fraser in the UK.

The restructuring of the retail industry is merely a glimpse of things to come for many other sectors of the global economy.

The speed and scale of change is reflected in Jeff Bezos’ insistence that his primary task at Amazon is to ensure that it always behaves with the urgency it showed on the day it was founded. His reasoning? Because if that doesn’t happen, he fears: “We get to Day 2: stasis – followed swiftly by irrelevance.” That might sound like hype, but Innosight’s analysis of the Standard & Poor 500 Index suggests that the average time companies spend on the index will shrink to 14 years by 2026 (compared to 33 years in 1985).
There is nothing new about volatility. The French have used the word volatile to describe something “evaporating rapidly” since the 17th century. As a management concept it became fashionable in the late 1990s and has since become ubiquitous in the light of such unforeseen developments as the Arab Spring, the UK’s vote to leave the European Union and the presidencies of Donald Trump and Emmanuel Macron. These could all be considered ‘black swans’, as Nassim Nicholas Taleb defined wildcard events in his 2007 bestseller. They are large, hard-to-predict events that we struggle to understand within our usual frame of reference and with consequences that have, in the past, been hard to compute.

For CEOs, CFOs and CPOs, volatility presents two mission-critical tasks: how to manage risk and where to allocate resources. The obvious temptation is to play safe, which is one reason so many US CEOs have recently opted to keep their company’s cash in the bank. Moody’s Investor Service estimated that non-financial businesses in the US were sitting on $1.69tn at the end of 2018. That is 15% lower than at the end of 2017, but still an epic sum.

Managing risk is not as simple as it once was, either. Take the example of plastic pollution in our oceans. This became a cause célèbre after British broadcaster Sir David Attenborough showed coastlines covered in plastic in his 2017/18 BBC television documentary series *Blue Planet II*. Within 18 months, the social-media-fuelled outcry had prompted more than 60 countries to restrict plastic production and consumption and large multinationals such as Coca-Cola, Kellogg, PepsiCo, Procter & Gamble and Unilever to publicly pledge to eliminate or reduce plastic waste in their operations.

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Even more traditional risks – such as the impact of climate – are becoming harder to manage. In the past year, two major fashion brands have blamed poor sales on “unseasonably warm weather” in the UK. Given that only 20% of weather repeats itself year on year, any supply chain that draws entirely on retrospective data is likely to miss the mark some of the time and, either through higher costs or lost revenue, have an impact on the bottom line. Relying on retrospective data has become even more perilous, with prolonged periods of dangerous heatwaves, heavy downpours, floods and droughts becoming more common in the US in the past 50 years, according to the National Climate Assessment.

By modelling a range of scenarios through a ‘digital twin’, procurement leaders can analyse the potential impact of a range of risks – geopolitical, environmental, lifestyle, commercial and competitive. One of the most common hazards companies confront in a volatile market is supplier failure. Research published by the Chartered Institute of Procurement and Supply suggests that, over a three-year period, more than eight out of 10 businesses experience this. The damage could be minimised if CPOs modelled the risks, analysed the stability of their critical suppliers and used that information to reconfigure their networks. That task is on the ‘to-do’ list for many but has, in the past, been filed under ‘too difficult’. As technology develops, that need no longer be the case.

One of the favourite questions that non-executive directors like to ask CEOs – “What would happen if a new competitor came into your market and forced you to cut your prices by 10%?” – can now be answered in reasonable depth with the help of a digital supply chain.

Some companies have gone further: Tata Motors set out to cope with volatility by switching to an asset-light model, which reduced the automotive multinational’s break-even point from 60% of capacity to 35%. The ability to apply AI, a data lake and an enormous amount of computing power will help ease such re-engineering programmes.

“Procurement leaders can operate in two time frames at once,” says GEP’s Blake. “They can ensure their supply networks continue to perform for the existing company while looking ahead to how the network will need to operate two or three years from now.”
We can be certain about one aspect of uncertainty: neuroscience proves that it makes our brains hurt. In 2016, researchers in London found that volunteers who were told they would definitely receive an electric shock were less agitated than those who were told they had a 50% chance of being given a shock. A thumbnail-sized part of our brain, called the locus coeruleus, releases a neurotransmitter called norepinephrine to help the brain adapt to a range of outcomes. Norepinephrine does that very well – but for a price: it makes us feel on edge.

You could argue that uncertainty affects companies – which are, after all, full of people – in a very similar way. In Hollywood, where Oscar-winning scriptwriter William Goldman coined the aphorism “Nobody knows anything”, Universal and United Artists rejected *Star Wars* (one screenwriter insisted: “George [Lucas] has lost it.”) Another common error is to crunch the data and be over-confident about reading a trend. Futurist Paul Saffo liked to caution against this with a maxim he heard from a rancher: “Never mistake a clear view for a short distance.”

There are no risk-free decisions – someone somewhere probably has been fired for buying IBM – but CEOs and CPOs could, like great tennis players anticipating a return of serve, manage uncertainty more effectively. Drawing on their experience, knowledge, and data – including cues from their opponents’ physical stance – tennis champions create time for themselves by anticipating where the return is most likely to come. Given the technology already available – which is becoming more powerful all the time – CEOs, CFOs and CPOs could easily do the same, giving their company time to act by reading their competitors’ most likely moves. Indeed, they can go one better than the likes of Roger Federer and Serena Williams by preparing for a rival’s less-familiar strategies.

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Every supply chain is different, but all have one thing in common: complexity costs them money. Whether it manifests itself in customer dissatisfaction, budget-busting manufacturing, overstocking (or not having stock where it could be sold), inordinately long lead times, bureaucratic internal processes or friction between suppliers, the bottom line will suffer.

In a globalised economy, with digital technology enabling companies to calibrate their supply networks to create a competitive advantage – often in terms of unit cost but, increasingly, reflecting the need to be near to critical markets – company supply chains are more interconnected and interdependent than ever before.

Some businesses are born complex. Earning their keep is exponentially more complex for aerospace companies than bakers. All businesses have some degree of complexity thrust upon them. Companies must meet customer expectations – and, even if their product is relatively simple, that can force them to manage a variety of brands, products and distribution channels; comply with regulations; and interact with different kinds of stakeholders.
And some businesses achieve complexity – by the way they configure their organisations, define their processes, systems and infrastructures, and manage their supply chains. Many CPOs recognise the need to optimise their supplier network but are too preoccupied by day-to-day business pressures to act. Pressed for time, others have envisaged that challenge purely through the lens of supplier reduction. (Eliminating lots of suppliers you haven’t used in the past three years from the database may seem like a quick win, but the impact on the business is likely to be negligible.)

“Technology can make this challenge much less burdensome,” says Blake, “and help you ensure that, especially when it comes to buying materials that are critical for your business, you have the right number of suppliers for a competitive tender.”

The complexity many companies find the hardest to combat is internal. Established processes, policies and procedures can hinder innovation. In the not-too-distant past, it didn’t matter if a new product took a year to get from R&D to market. Today, most companies aim to compress that journey into six months or less. Some corporations – such as Bosch, Unilever and GSK – have gone so far as to hire external partners to create alternate supply chains to accelerate the process. Other major players – such as Campbell’s, Caterpillar, Diageo, General Motors, Hershey, Kraft, Pernod-Ricard, PepsiCo and Phillips – have launched venture funds to invest in start-ups with a view to helping them develop products and, in many cases, acquire them at a later date.
We now live, work and compete in a world where it is much easier to detect when something is happening than to explain why it is happening. In B2B and B2C, customer preferences are becoming more opaque, inconsistent and transient. Even B2B buyers’ habits are changing. At the end of most B2B supply chains is a customer whose expectations – in terms of speed, ease of use, customisation, service and technological sophistication – have been redefined by the platform businesses they use.

Organisations can no longer rely on a leader, or group of leaders, to answer the question ‘Why?’ by drawing on an amalgam of instinct, experience and spread sheets.

The good news, Blake says, is that technology can help companies explore ambiguity, crunch data and get granular on the detail. This data will not, as some managers have in the past naively suggested, ensure that everyone draws the same conclusion. Groupthink is seldom a virtue and leaders need to create environments where information can be interrogated from different standpoints; but data will help clarify the issues, bring an element of objectivity into what can often be very subjective discussions, and inform decision-making.
In the midst of all this change, disruption and reconfiguration, traditional mindsets, systems, structures and processes will increasingly become a serious competitive disadvantage. Businesses that still run their supply chain on the industrial, mass-production model are likely to be slower to execute innovation, anticipate market trends and respond to disruptive events. The systems they use to manage inventory, logistics and suppliers are effectively set in stone, discouraging innovation rather than encouraging it.

The good news is that an array of emerging technologies – notably AI, augmented ability, data science, robotic process automation and VR – can help corporations re-engineer their operations quickly and productively. With accurate, real-time, comprehensive and forward-looking information at their fingertips, it will become easier for CEOs, CFOs and CPOs to distinguish the signals from the noise – and define their strategy accordingly.

In this new world, will there still be a role for ERP systems? Almost certainly. Companies that have recently invested in large turnkey systems are unlikely to switch them off anytime soon. The systems themselves have begun to evolve: some analysts talk of ‘ERP 2.0’, where the tech monoliths of old are replaced by more fragmented systems better suited to a VUCA market. The application of new tech could also give them a new lease of life.

Yet Blake believes that ERP systems will not dominate company systems, processes, cultures and strategies in the way they did a decade or so ago. “The critical question for every organisation is: do these systems improve our performance or not? It’s hard to make your business agile if your technology is sluggish. Companies with processes and cultures that are defined by ERP systems are likely to be more vulnerable in a VUCA marketplace – and less likely to be agile enough to adapt. Aside from the issue of the technology itself, these systems were aligned to a particular corporate model. They were designed for command and control, not agility and flexibility. An increasingly volatile, complex, uncertain and ambiguous global economy, where being first is often decisive, requires a different approach to technology – and a different kind of mindset. Leading-edge companies will increasingly look beyond ERP – which will increasingly give them a decisive advantage over competitors that remain tied to ERP.”

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“IS IT THE END OF THE ERP ERA? WHERE DO WE GO FROM HERE?”
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