IBM Insights on SAP
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Foreword

Welcome to our first edition of IBM Insights on SAP. When we began the journey to research and write this paper at the beginning of 2020, the world seemed “normal.” The global economy was generally doing well, and the United States was experiencing a 50-year low unemployment rate of 3.4%. The experiences of the past several months have turned the world upside down. The impact of COVID-19, and the global economic shutdown caused by it, are unprecedented in our lifetimes. And like many businesses around the world, SAP and its ecosystem have been impacted by this crisis.
We have attempted to craft this paper with a focus on what we were experiencing with our clients in the SAP ecosystem before the crisis, and what we know they continue to focus on in regard to their SAP investments, particularly SAP S/4HANA. Many clients continue to invest in their programs, viewing them as a strategic driver for their business. While the momentum has slowed in the market, we are already beginning to see encouraging signs of an upturn in activity. The strategic drivers for companies will still exist after the crisis. While the crisis has often turned our clients’ attention elsewhere for a period of time, they are telling us that their focus will return to these programs in the second half of the year.

Perhaps as we emerge out of this difficult time, we will see that the advances in technology will further accelerate enterprises’ efforts to anticipate changes, to exploit AI, to focus on what they consider core versus non-core to their businesses. At IBM, we have been here to serve our clients for over 100 years, through good times and bad. We remain committed to our clients.

Keith Costello
Global Vice President & GM, SAP Practice, IBM Services
Introduction

A new era of business reinvention is dawning. The digital transformation of the past decade is entering a new phase of exploiting data at scale, using exponential technologies such as artificial intelligence, blockchain, automation, Internet of Things, 5G, and edge computing to drive new business outcomes and experiences. If harnessed correctly, these technologies can deliver unprecedented levels of new business value.

However, achieving this next level of transformation will be a challenge for many organizations, particularly those that have focused their digitalization efforts to date on individual parts of the business or specific processes. For some, it will further underline the difficult reality that their current core business systems and processes will be unable to cope with the new technical demands placed upon them.
SAP is the world’s leading vendor of ERP software, providing a reliable business engine that drives thousands of organizations around the world. In this e-book we examine the impact that the new era will have on the company and its customers, with a particular focus on four key areas:

- The main technology prerequisites for next-level transformation
- How next-generation SAP ERP and other applications support this transformation
- The challenges, opportunities, and business benefits of moving to SAP S/4HANA
- How to accelerate the move and create an effective roadmap to unlock maximum business value from SAP S/4HANA and other SAP software

Our observations are informed by extensive global research and hands-on experience of advising, planning, and executing SAP implementations for clients around the world.

Of executives say that digital initiatives will be essential or very critical of their organizations’ success in the next three years.\(^2\)
Becoming a Cognitive Enterprise

We are all entering an exciting – but also challenging – period of next-generation enterprise transformation. The digital journeys of the past decade are now becoming cognitive journeys, driven by the maturity of exponential technologies such as AI, blockchain, automation, IoT, 5G, and edge computing.

Nearly two-thirds of executives plan to accelerate their digital transformation efforts over the next two years. As these capabilities are applied at scale, they increasingly result in change to the core of organizations – and their mission-critical processes – rather than being confined to the experimental periphery.

IBM has dubbed this phenomenon the “Cognitive Enterprise”, and we are now seeing this new generation of transformation become reality as more enterprises seize the opportunity to exploit new technologies to reinvent themselves and take the fight to the digital disruptors.
There are three technology prerequisites to becoming a Cognitive Enterprise: cloud-based business platforms that leverage data as the new currency; intelligent workflows that infuse business processes with exponential technologies; and the ability to deliver compelling experiences to build brand trust.

Moving to hybrid multicloud platform strategies
Cloud is still the key technology driver for digital transformation. It enables new platform-based business models, the orchestration of digital ecosystems, and the delivery of connected customer and employee experiences.

The growth of cloud continues unabated. But although 90% of companies globally were “on the cloud” by 2019, only 20% of their workloads have moved to a cloud environment.

These workloads have usually been microservices that are native – that is, born in the cloud.

Within the next three years, an enterprise will be using over 10 clouds on average. The next 80% of the cloud opportunity will focus on shifting core business applications and workloads to the cloud and optimizing everything from supply chain to sales. This new chapter of cloud evolution requires business executives to invest in hybrid multicloud platform strategies and capabilities that operate across public and private clouds, and on-premise solutions. 70% of leading CIOs are planning big investments in hybrid cloud computing in the next two to three years.
47% of leaders anticipate growth in hybrid cloud adoption with six hybrid clouds per enterprise expected to be in operation by 2023.
When running SAP environments in the cloud (public or private), more and more organizations are leveraging the cloud infrastructure and services provided by the leading cloud providers. Microsoft Azure and IBM Cloud are currently the leading choices for SAP workloads, chosen by 50% and 44% of SAP customers respectively, followed by Amazon Web Services and Google Cloud platform. With larger companies ramping up their storage and compute needs and small and medium sized companies following suit, these hyperscalers can store and process vast amounts of data and provide a fast and reliable way of scaling up to support millions of users.

Creating intelligent workflows
Customers expect seamless, personalized experiences across all channels. Intelligent workflows, augmented by AI and infused with other exponential technologies such as automation, blockchain, and IoT, will underpin the ability of business platforms to deliver exceptional differentiated outcomes (see Figure 1). 66% of CEOs say that their business landscape is expected to evolve over the next two to three years towards more automated decision-making processes.10

By knitting together end-to-end processes across platforms, organizations will be able to deliver better outcomes in terms of value, cost, and experience.

AI combined with blockchain can capture information at the source and then route it to ecosystem partners for action. When a customer submits an auto or equipment insurance claim, for example, it could trigger requests across the platform ecosystem, scheduling a repair request and other notifications, and even negotiate and issue payments.

Targeting, shaping, and building these intelligent workflows and the skills that surround them will become the core focus of agile teams in organizations as they realize new value and experiences.

Reimagining customer and employee experiences
Today’s consumers are influenced not just by products or services but by the overall brand experience and reputation. They will happily give their support to brands that share their views on important issues like sustainability and quickly abandon those brands that do not.

In a new world reconfigured by business platforms, this presents a fresh challenge. Business platforms often host competitors, facilitating comparison shopping and potentially diminishing brand loyalty. This vital trend is recognized by business leaders. In a recent worldwide survey of C-level executives, a remarkable 93% of respondents cited creating brand reputation as the most critical aspect of their operating models.13
Figure 1: Benefits of AI and intelligent automation

- Enhancement of workforce capabilities: 75%
- Personalization of customer experiences: 73%
- Personalization of products and services: 70%
- Enhancement of forecasting and decision-making: 65%
- Optimization of business processes and workflows: 55%
56% of leading executives say that they are acquiring and sharing data extensively with network partners.11
Brands can no longer rely on blind loyalty. Leaders understand that they must earn customer trust and earn it again with every transaction (see figure 2). Every touchpoint – from product and service acquisition to delivery and beyond – contributes to the customer experience. **71% of leading executives** focus on using data to identify unmet customer needs and **69% of them on building processes** to deliver value at every customer touchpoint. Speed and responsiveness are critical across end-to-end operations, and **85% of leaders** are already accessing real-time information to optimize processes and networks for quick actions and results.
Figure 2: What consumers are looking for when choosing a brand\textsuperscript{16}

<table>
<thead>
<tr>
<th>Feature</th>
<th>Very important</th>
<th>Moderately important</th>
<th>Slightly or not important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provide products and services that help simplify my life</td>
<td>53%</td>
<td>31%</td>
<td>16%</td>
</tr>
<tr>
<td>Offer “clean” products</td>
<td>50%</td>
<td>28%</td>
<td>21%</td>
</tr>
<tr>
<td>Provide products with health and wellness benefits</td>
<td>46%</td>
<td>31%</td>
<td>23%</td>
</tr>
<tr>
<td>Are sustainable and/or environmentally responsible</td>
<td>45%</td>
<td>32%</td>
<td>23%</td>
</tr>
<tr>
<td>Support recycling</td>
<td>44%</td>
<td>32%</td>
<td>24%</td>
</tr>
<tr>
<td>Use organic ingredients</td>
<td>41%</td>
<td>31%</td>
<td>28%</td>
</tr>
</tbody>
</table>
Six crucial strategies that define digital winners

Insights on the power of AI-driven operating models from the IBM Institute for Business Value.

Read more →

The hybrid cloud platform advantage

More insights on a guiding star to enterprise transformation from the IBM Institute for Business Value.

Read more →
How SAP enables the Cognitive Enterprise

SAP’s strategy, “The Experience Company powered by the Intelligent Enterprise”, fully supports the idea of the Cognitive Enterprise and its technology prerequisites. The strategy aims to help customers thrive in the new economy where being a data-driven enterprise and delivering exceptional experiences is key to their success.

Mirroring the Cognitive Enterprise, SAP’s Intelligent Enterprise Framework (see Figure 1) comprises three essential components to enable customers to break down data silos and adopt intelligent, dynamic, cross-functional business processes to deliver optimal experiences:

**A business technology platform** which provides unified data management across internal and external data, intelligent technologies to improve analytics and transactional workloads, and application services to simplify extension and integration across the intelligent suite.

**An intelligent suite of applications** to automate day-to-day business processes, share insights across functions, and better interact with customers, suppliers, employees, and partners through applications embedded with intelligence.

**Experience management capabilities** to holistically measure and track stakeholder experiences across all touchpoints, prioritize and predict stakeholder needs and trends, drive actions, and monitor experience improvement.
The digital core at the heart of the intelligent suite is provided by SAP S/4HANA, the next-generation of integrated, intelligent ERP applications. Available as on-premise, on the cloud, and in hybrid deployments, it is powered by the SAP HANA® in-memory database. The digital core connects to a series of integrated yet modular cloud applications across key lines of business such as HR, finance, procurement, manufacturing, supply chain, and customer experience.

The intelligent suite also connects to the business technology platform that is designed to:

- Enable customers and partners to easily extend SAP’s intelligent suite with their own innovative capabilities
- Integrate with third party solutions with no friction
- Build new applications that have high impact on their business processes
- Enable SAP internally to integrate and embed SAP® Leonardo capabilities into the intelligent suite to further enhance customer value

The overriding aim is to enable enterprises to turn their data into business value in the fastest possible way.
Figure 3: The SAP Intelligent Enterprise Framework

- Customer Experience
- Manufacturing & Supply Chain
- Digital Core
- People Engagement
- Network & Spend Management

Intelligent Technologies

- AI
- Machine Learning
- IoT
- Analytics

Data Management

Cloud Platform
The challenges facing SAP and its customers

SAP is synonymous with ERP. And despite predictions to the contrary, ERP solutions remain at the heart of many organizations’ core capabilities and inextricably linked to their digital transformation strategies.

As SAP’s next-generation ERP suite, SAP S/4HANA is the natural evolution for all SAP® Business Suite and SAP® ECC customers. As we have seen, it provides a modern digital core to connect line of business applications into intelligent, end-to-end processes across the enterprise fueled by exponential technologies. For organizations new to SAP, it is a perfect way to skip the previous on-premise iterations and move direct to cloud-based SAP ERP and other applications.

The SAP Quarterly Statement for Q1 2020 reported that around 300 SAP S/4HANA customers were added in the quarter, a 23% year-on-year rise. More than 45% of these additional SAP customers were net-new, and increasing numbers of organizations are deploying SAP S/4HANA in part or entirely in the cloud.
According to a 2019 survey conducted by the Americas’ SAP User Group (ASUG), 56% of SAP customers have plans to move to SAP S/4HANA but many of these have stalled or stopped completely. Why are we seeing adoption rates that are slower than anticipated? And why are some large-scale enterprises that have been running SAP for many years apparently the most reluctant to make a move?

There are a number of possible reasons. One is that customers know from prior experience their initial SAP implementation – undertaken years or even decades ago – involved significant expense and business disruption. Their mission critical SAP ECC systems – including many that have evolved from the earlier SAP® R/3 ERP iteration – are solid, reliable, and probably highly customized. These customers see great value in their SAP systems, and in large part due to the customization, the systems are tailored to their business needs. Even when regarded as a technical upgrade, the journey to SAP S/4HANA is a major IT project with the associated challenges and outlay.

For customers like this, becoming a Cognitive Enterprise requires a significant amount of analysis and inevitable change, not only to mission critical systems but also to many employee roles and business processes. It is a challenge to make a compelling business case for such fundamental change, when the current systems are serving the business and the business benefits are still being realized. In these circumstances and, not surprisingly, many organizations are deferring the decision or opting for less invasive alternatives.

The recent announcement of the extension of SAP Business Suite support from 2025 to 2027 (and even longer for arranged support models) may have swayed the decision in favor of deferral for many risk-averse organizations.
Another reason is that customers, to one degree or another, are on a journey to move many workloads to the cloud. For some customers, this is their number one IT priority. Many of these workloads are on the periphery of SAP, and some of these are major transformational programs themselves. The drive by customers to a hybrid cloud infrastructure is in its early days, but the benefits (both cost savings and technical) are clear.

Many customers are successfully running their SAP workloads on IBM Cloud, and in May 2019 announced a series of global strategic service partnerships to enable SAP S/4HANA to run on other leading cloud providers including Amazon Web Services, Microsoft Azure, and Google Cloud. How can this impasse be resolved to enable more organizations to plan and execute an effective journey to SAP S/4HANA?
Focus on the business benefits of moving to SAP S/4HANA

The key issue is to refocus the conversation on the business benefits of moving to SAP S/4HANA as the core of a far-reaching, next-level transformation program. Inevitably, the IT organization will be concerned with the costs and timelines involved in retooling complex, custom SAP installations. Line of business stakeholders may insist their essential applications cannot tolerate any disruption, and users may be concerned at potential changes to their interfaces and processes.
The business benefits are summarized succinctly in the Frost & Sullivan e-book, “Why CEOs should care about the move to SAP S/4HANA”:

- Business agility, via flexible deployment options
- Speed to market, enabling rapid addition of new apps and functions
- Integration of new technologies, like artificial intelligence and machine learning, via the SAP platform
- Cost-efficiencies, through process automation and choice of deployment

- App performance improvement, via modern code and automated updates
- Security that is baked-in, not bolted on
- Streamlined business operations, via embedded analytics and automation

Traditionally, the IT organization has been responsible for selecting and provisioning the infrastructure to run business applications. The cloud has been a great democratizing force and line of business owners now have more influence on infrastructure decisions. This also means that C-level executives can now help the SAP S/4HANA migration progress smoothly.

The Frost & Sullivan e-book lists five tips to get organizations started:

- Prepare the organization to be “change-resilient”
- Evolve a “cloud-first” strategy to a hybrid/multicloud strategy
- Standardize where possible; customize where it matters
- Plan for the long-term; measure in the short-term
- Partner with an SAP expert

As noted above, a two-speed digital transformation in which the top workhorses – including financial, supply chain management, product lifecycle, and CRM systems – remain mired in yesterday’s technology simply will not work. Migrating to cloud-based SAP S/4HANA will enable organizations to accelerate innovation and run their businesses more effectively and cost-efficiently.
Why CEOs should care about the move to SAP S/4HANA

Read the Frost & Sullivan views on how the C-Suite can accelerate migration and time to value for SAP S/4HANA.

Read the ebook →
Accelerating the journey to SAP S/4HANA

SAP’s strategy fully supports the idea of the Cognitive Enterprise. Instead of being seen as a like-for-like replacement for existing ERP capabilities, SAP S/4HANA should be regarded as a new digital core for the business: a flexible foundation that connects the entire enterprise, upon which next-generation technologies can be built.

Digital transformation on this scale is inevitably disruptive. IBM has great experience in orchestrating large, complex programs with profound consequences for the client’s business. At every stage, IBM can help identify and mitigate the end-to-end impact of transforming operations with SAP S/4HANA.

Most important is the new business value that these exponential technologies can create if harnessed correctly. The combination of research capability, deep industry expertise, and innovative technology that IBM brings to the table can dramatically change the business case, the value delivered, and the time needed for realizing the true benefits of SAP S/4HANA and other SAP applications.
For more information

To find out more about IBM as your SAP transformation partner, please click to visit:

- SAP S/4HANA Services
- Services for SAP Solutions
Vodafone: A faster path to SAP S/4HANA

Vodafone accelerates its move to SAP S/4HANA using IBM Rapid Move, with 50% increase in time to value and 90% data footprint reduction, compared to traditional upgrade projects.

Watch the story →
Vivo Energy improves productivity and analytics

Vivo Energy, a leading fuel retailer in high-growth African markets, engaged IBM Services to implement SAP S/4HANA, boosting data analysis capabilities, giving granular insight into operation and improving efficiency.

Watch the story →
Notes and sources

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