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Business Value Highlights

547%
five-year ROI

11 months
payback period

\$184 million
(\$432,000 per 100 employees)
five-year benefits

43%
more efficient IT staff

18%
more productive ERP
management

81%
reduced help desk
operations costs

SAP S/4HANA Delivers Enhanced Business Value for the Enterprise

IDC OPINION

IDC conducted research that explores the value and benefits for organizations using SAP S/4HANA for their enterprise resource planning (ERP) environment in support of their business operations. SAP S/4HANA is an intelligent, integrated ERP system that runs on SAP's in-memory database, SAP HANA. The research included 11 interviews with organizations that had experience with or knowledge about SAP S/4HANA's benefits and costs. The survey data applied to IDC's Business Value model showed that study participants are realizing significant value with SAP S/4HANA. IDC calculates that study participants will achieve average annual benefits of \$53.1 million per organization (\$125,084 per 100 employees), which would result in a five-year return on investment (ROI) of 547%, by:

- Increasing the efficiency of IT staff and fostering more productive management of ERP resources
- Translating IT and ERP management benefits into improved business results and higher annual revenue
- Minimizing the effects of unplanned downtime thereby contributing to greater productivity for business units

SITUATION OVERVIEW

Organizations are moving to modern enterprise business applications as the first step in the journey to transform the different domains of the business. The magnitude of change means that organizations that are just now considering a move to a modern ERP need to move quickly and efficiently toward that goal. This requires two things: first, careful planning and, second,

selecting a partner that can support initiatives with advanced tools, a portfolio of services, and best practices.

Over the past few years, the ERP market environment has exploded with SaaS- and cloud-enabled ERP systems. However, many ERP customers are faced with a tough choice. They can hold on to their legacy ERP solution, or they can make the move toward a more modern ERP solution.

The decision involves determining the benefits of a new ERP platform, building a strong enough business case to justify the change, and deciding whether to go with a new implementation or a system conversion.

Some customers migrate because mergers and acquisitions have led to double- and triple-digit instances of ERP that must be combined into one. Other companies may go directly to a new implementation to obtain full benefit from the new technology.

Implementation of a new ERP platform takes time, as businesses should understand their requirements. But, while understanding the requirements to deploy properly is a core necessity, businesses should not waste time either. In making a strong business case for change, some companies have utilized regulations as a way to garner support for moving to modern ERP implementations and shortening implementation time frames.

SAP S/4HANA OVERVIEW

SAP offers intelligent enterprise solutions supporting enterprises of all sizes. The solutions can be used on a standalone basis to address areas such as human resources (HR), supply chain, finance, and procurement or in combination for maximum impact, and they can be delivered in an on-premise, cloud, or hybrid environment.

SAP provides ERP modernization and intelligence with SAP S/4HANA through the data model that runs exclusively on the SAP HANA in-memory database. As a result, both transactions and analytics can run from the same database. Business processes benefit from real-time analytics, greater efficiency, and new capabilities — benefits not possible with traditional databases.

Machine learning automates business processes, allowing users to focus on more strategic tasks. Repetitive and error-prone jobs such as reconciliation are automated. Patterns and problems in the data can be brought quickly to the user's attention, revealing solutions to business problems that would not otherwise be obvious.

Organizations are drawn to SAP's reputation to enhance the entire enterprise capabilities with the company's software. SAP S/4HANA has led to immediate benefits across an organization, including reporting, planning, and overall business processes because the in-memory data is available in real time and easily accessible.

Many customers are looking to SAP S/4HANA as a means of pushing their entire business toward the digital future. In fact, digital transformation is a major driver in many enterprise application areas, not just ERP. Many customers emphasize SAP's intelligent ERP and commitment to pushing innovations onto the SAP S/4HANA platform as a major differentiator among many of the company's competitors and one of the key reasons to transition.

Summing up the advantages, in-memory database is a major strength. SAP S/4HANA has a single in-memory database and offers a columnar data model for both transactions and analytics, eliminating redundant data and providing real-time insight. This is tied to an AI-powered set of functionalities within ERP to automate routine work and flag exceptions for human action. The company has a strong commitment to automating half of all ERP activities in the next three years. In addition, SAP has one code line, one data model, and one user experience for both cloud and on-premise deployments, making it easier and cheaper for companies to manage hybrid scenarios.

SAP has proven itself over the years, including thousands of customers moving from ECC to SAP S/4HANA. With SAP S/4HANA, organizations find they now have real-time information at their fingertips that is both flexible and scalable across their business. According to customers, simplifying and standardizing operations is easier with SAP S/4HANA. Organizations rely on SAP's technology systems to help run their business. SAP S/4HANA's business value is the reason so many organizations rely on it.

THE BUSINESS VALUE OF SAP S/4HANA

Study Demographics

IDC conducted research that explored the value realized and benefits achieved by organizations using SAP S/4HANA. The project included 11 interviews with organizations that were using SAP S/4HANA and had experience with or knowledge about its benefits and costs. During the interviews, companies were asked a variety of quantitative and qualitative questions about the impact of the solution on their IT operations and business.

Table 1 presents study demographics and profiles. Organizations interviewed had a base of 42,421 employees, indicating the involvement of several large companies. (Note: six out

of the 11 organizations had annual revenue of over \$10 billion). On average, these large organizations are supported by an IT staff of 2,239, engaged in managing 721 business applications and supporting a total of 37,243 users.

In terms of geographic representation, most companies were based in the United States, with France, India, Japan, Pakistan, Peru, and Russia also represented. In addition, these organizations represented a diverse mix of industries, namely, manufacturing, professional services, financial services, information technology, and utilities. (Note: All numbers represent averages.)

TABLE 1 Firmographics of Interviewed Organizations

	Average	Median	Range
Number of employees	42,421	10,580	200–250,000
Number of IT staff	2,239	73	3–15,000
Number of IT users	37,243	10,000	200–250,000
Number of business applications	721	50	6–5,000
Revenue per year	\$10.71 billion	\$1.45 billion	\$10.0 million to \$59.0 billion
Industries	Manufacturing (6), professional services (2), financial services, information technology, and utilities		
Countries	United States (5), France, India, Japan, Pakistan, Peru, and Russia		

Source: IDC, 2019

Choice and Use of SAP S/4HANA

The companies that IDC surveyed described usage patterns for SAP S/4HANA as well as provided a snapshot of their overall IT and business environments. They also discussed the rationale behind their choice of SAP S/4HANA. Interviewed customers cited several factors for the choice, such as having an approach based more on standards, capabilities and features that fostered collaborative finance, the ability to simplify back-office capabilities, and the quality of SAP's manufacturing offerings. Study participants elaborated on these benefits:

- Ability to set up business for the future and avoid the need for continued customization:** *"To be honest, there is no other competitive product out there to SAP S/4HANA Its features, flexibility, and scalability set it apart. We wanted a platform that could look to the future It was about being prepared for the future. We wanted to move toward standards and wanted to avoid continued heavy reliance on customized solutions."*

- **User-friendly capabilities:** *“We decided to deploy SAP S/4HANA because of all of the wonderful capabilities that it has. For example, it has a collaborative finance functionality that supports our finance operations. Its financial planning and analysis dashboard is easy to use and it simplifies the close process. We can also manage our enterprise risk and compliance more effectively because we can now automate the risk. It also impacts areas such as sales performance, professional services, and expense billing. The list goes on.”*
- **Need to simplify and standardize ERP operations:** *“We decided to go with SAP S/4HANA because we needed to simplify our back-office processes and improve our financial reporting processes In particular, we needed to move away from manual processes and standardize on one ERP platform and version.”*
- **Quality of manufacturing-specific offerings:** *“We ran an open test when choosing SAP S/4HANA with SAP partners and were impressed with the quality of their manufacturing offerings, which strengthened our commitment.”*
- **Focus on mobility and DevOps to support business growth:** *“We are focused on mobility solutions and looking at DevOps, and SAP S/4HANA will help us move in those directions We identified the need to improve overall operations as our business has grown and became more complicated.”*

Table 2 presents metrics that describe the extent of SAP S/4HANA usage within the interviewed customers. The disparity between the average and median values indicate that the organizations varied in terms of size and centralization. However, the 85% of internal users supported and 72% of total revenue metrics are signs of the importance of SAP S/4HANA to the business. (Note: All numbers cited represent averages.)

TABLE 2 Organizational Usage of SAP S/4HANA

	Average	Median
Number of site/branches	308	8
Number of suppliers	567	7
Number of manufacturing facilities	81	3
Number of terabytes (TB)	105	4
Number of business applications	58	12
Percentage of internal users supported	85	50
Number of external users/customers	1,985	0
Percentage of total revenue	72	80

Source: IDC, 2019

Table 3 presents metrics on the employees directly supported by SAP S/4HANA. The greatest numbers of users were found in sales teams (1,006), human resources teams (859), and engineering teams (626).

TABLE 3 Employees Directly Supported by SAP S/4HANA

Employee Team	Average	Percentage of Users
Finance teams	450	20.00
Asset management teams	104	2.50
Engineering teams	626	16.30
Human resources teams	859	11.50
Manufacturing/supply chain teams	154	14.00
Marketing teams	259	7.00
Sales teams	1,006	18.00
Sourcing and procurement teams	269	7.20
Other — project based, client service	78	3.50

Source: IDC, 2019

Business Value and Quantified Benefits

IDC's Business Value model expresses the benefits for organizations using SAP S/4HANA to support their ongoing IT and ERP operations. Survey data obtained from customers was applied to this model to arrive at quantified post-deployment benefits. Using this methodology, IDC found that these customers realized significant value for their IT-related teams and business operations. With time, organizations using SAP S/4HANA were able to increase the efficiency of IT staff and foster more productive management of ERP resources, translate IT and ERP management benefits into improved business results and higher annual revenue, and minimize the effects of unplanned downtime thereby contributing to greater productivity for business units. Study participants described the most significant benefits:

- Better overall ability to ensure quality and respond to competition:** *"We've reduced a lot of manual effort with SAP S/4HANA. As a result, we've been able to automate more processes, and we are more responsive to competition. Our competition has increased as new competitors have entered the market, so we need to operate in a more cost-effective manner. One of the key benefits is that we are more streamlined and cost effective. Now, since we are using SAP for all functions, we can adjust to the market more easily. With real-time*

reporting, inventory is under control and there is less production loss, and real-time monitoring of processes, including quality and defects. This means timely ordering of parts. All of these ensure that our customers are better serviced and getting a better product.”

- **More competitive and profitable due to lower costs:** *“We are better positioned to deal with the increased competition with SAP S/4HANA. In particular, we’ve reduced operational costs by an estimated 20–25%, so we are more profitable.”*
- **Better visibility into entire operations:** *“The old system only took care of the majority of the financial area. By implementing and deploying SAP S/4HANA, they now are able to see everything from the upstream to the downstream process. So everything can be virtually visualized, and the data can be analyzed from end to end at this point, which is absolutely fabulous.”*
- **More powerful analytics:** *“It’s the capabilities of SAP S/4HANA in terms of processing the amount of data we have. There is a larger amount of custom reporting that we can get out of the system. The flexibility of using the system is definitely a huge help.”*

The deployment of SAP S/4HANA has resulted in significant levels of value by enabling these organizations to better address business opportunities and generate new business. IDC projects that the total value customers are realizing will be worth an annual average of \$53.1 million per organization (\$125,084 per 100 employees) over five years in the following areas (see Figure 1):

- **Employee productivity:** Interviewed organizations reported that SAP S/4HANA improved employee productivity. IDC calculates this benefit at \$31,704,578 per organization (\$74,738 per 100 employees).
- **IT staff productivity:** Study participant data showed that use of SAP S/4HANA requires less IT staff time to manage ERP and IT resources. IDC projects that interviewed organizations will realize value at an annual average of \$7,941,235 per organization (\$18,720 per 100 employees).
- **Business productivity benefits:** Study participants realized improved business productivity and results at an annual average of \$7,717,885 million per organization (\$18,090 per 100 employees).
- **Risk mitigation — user productivity benefits:** SAP S/4HANA customers reported that they experienced fewer unplanned outages. IDC calculates the value of higher user productivity at an annual average of \$5,742,292 per organization (\$13,536 per 100 employees).

FIGURE 1 Annual Benefits per Organization



Improvements in IT/ERP Performance and Operations

Study participants spoke with IDC about how SAP S/4HANA served to improve the efficiency of their IT and ERP operations. They noted that after deploying SAP S/4HANA, these operations could be conducted in less time and with greater agility and that they could better manage the risks associated with business continuity. Study participants cited valuable features and capabilities such as more effective resource management, more robust management tools, and strong efficiencies for engineering teams. Study participants commented on these and other benefits:

- Substantial engineering team efficiencies:** *"We're seeing strong efficiencies for our engineering team with SAP S/4HANA. This is the area with the greatest improvement, especially for maintenance processes. We don't have this capability in our other plants, and we estimate we will be benefiting 50–70% compared with other plants."*
- Improved performance and lower costs:** *"We've reduced the capacity of our database when we moved to SAP S/4HANA. In terms of costs, we used to have a lot of web development in applications and we were looking at costs for mobile applications ... SAP S/4HANA is cleaner than our previous environment and there are no replication problems. We are getting more products with monthly expenses that are around 25% lower."*
- Stronger management tools, lower risk:** *"Management tools are much stronger with SAP S/4HANA than what we had before. The right people have the right access to the data they*

are required to have. We now have a system with minimal risk, which means less risk of fraud. That's one of the key benefits."

- **More effective project and resource management:** "We can manage the enterprise, such as our different projects, more effectively. We can identify resources and then generate the most value."

Study participants reported that SAP S/4HANA enabled greater overall IT staff productivity in the areas of ERP management, help desk operations, and engineering. Table 4 provides granular pre- and post-deployment data on this benefit. SAP S/4HANA enabled a 19% increase in IT staff productivity. Broken out by team, there were improvements in ERP management (18%), engineering (19%), and help desk operations (81%). Additional metrics are presented in Table 4.

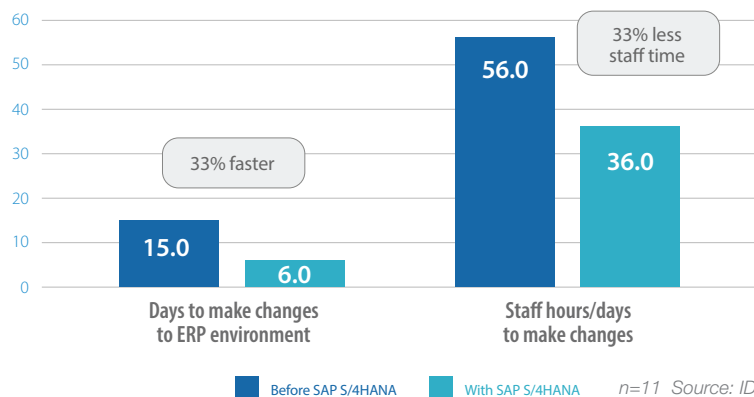
TABLE 4 IT Staff Productivity Impact

IT Staff FTEs	Before SAP S/4HANA	With SAP S/4HANA	Difference	Benefit (%)
Management of ERP environment	29.4	24	5.4	18
Engineering	626.1	507.1	119	19
Help desk operations	4.8	0.9	3.9	81
Total FTEs	660.3	532	128.3	19
Annual IT staff productivity benefit			\$12.8 million	19

Source: IDC, 2019

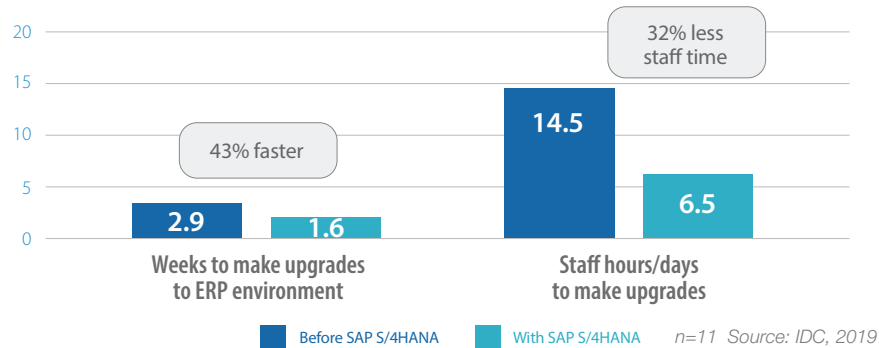
Figure 2 shows IT agility impacts for ERP changes. Based on data from study participants, SAP S/4HANA enabled IT staff to make changes to the ERP environment in two-thirds of the time required previously.

FIGURE 2 IT Agility Impact — ERP Changes



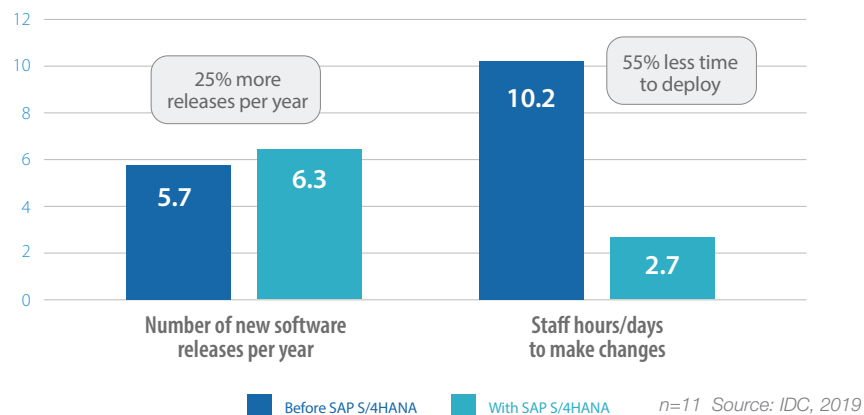
Similarly, there were benefits with respect to typical upgrades required in the process of ERP management. SAP S/4HANA enabled the IT staff of organizations surveyed to perform ERP upgrades 43% faster using one-third less resources (see Figure 3).

FIGURE 3 IT Agility Impact – ERP Upgrades



Study participants reported that SAP S/4HANA enabled greater IT staff productivity in the performance of routine tasks associated with application development. Figure 4 provides granular pre- and post-deployment data on this benefit. SAP S/4HANA reduced the time to deploy new software by half, which led to 25% more new software releases.

FIGURE 4 Application Development Impact



Improved performance and the ability to isolate and address problems mean that less staff time is required from help desk teams. According to data from study participants, calls/tickets per week decreased from 101 to 50, a 50% improvement. In addition, time required to resolve issues, measured in hours, decreased from 3.2 to 0.9 representing a substantial improvement

(72%). SAP S/4HANA reduced the time for IT staff to deal with help desk issues by 81%. Additional metrics are presented in Table 5.

TABLE 5 Help Desk Impact

	Before SAP S/4HANA	With SAP S/4HANA	Difference	Benefit (%)
Calls/tickets per week	101	50	51	50
Time to resolve (hours)	3.2	0.9	2.3	72
Total FTE impact	4.8	0.9	3.9	81

Source: IDC, 2019

Delivering Better Business Results and Efficiencies

The previously described benefits have real-world implications for the organizations surveyed. Study participants reported that SAP S/4HANA enabled them to achieve better business results and realize higher revenue by better addressing business opportunities and enabling faster delivery of new applications and services. They cited multiple specific benefits including better performance from marketing and manufacturing teams and obtaining financial data in real time delivered via mobile devices.

IDC also evaluated how the deployment of the SAP S/4HANA platform affected three types of financial teams: finance, accounting, and auditing. Overall, the finance team experienced a 25% improvement in operations (see Table 6). In addition, the total productivity impact for a staff of 450 was substantial, at 26%.

An interviewed organization provided this insight into the financial teams benefits: *“We use SAP S/4HANA for our finance and accounting activities. We now get financial reports in real time. We have a set of KPIs for our financial statements, which has improved greatly with S/4HANA. We also now have made finance applications and financial statements available on mobile devices As a result, approval processes are much faster and cleaner, up to 50% faster. There are overall performance improvements. Financial processes that took seven to eight hours are now down to less than an hour during working hours.”*

Additional metrics are shown in Table 6.

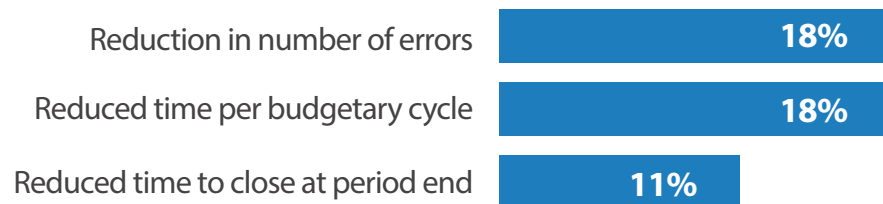
TABLE 6 Financial Team Productivity Impact

	Number of Staff	Average Percentage Productivity Increase	Equivalent FTE Impact
Finance team	8,670	6,421	26
Accounting team	0.7	0.6	11
Auditing team	3.1	2	34
Total productivity impact	307	203	34

Source: IDC, 2019

Figure 5 shows finance team's KPI benefits. There was an 18% improvement in both the number of errors and reduced time in the budgetary cycle.

FIGURE 5 Finance-Related KPI Benefits



n=11 Source: IDC, 2019 (% improvement)

Table 7 shows asset management impacts. Asset management staff productivity improved 22%, resulting in \$1.6 million in business value. As an interviewee relayed to IDC, “We’re seeing improvements with SAP S/4HANA that result in better response time for users. This covers analysis of data and the availability of reports where we are seeing about a 10–15% improvement. The speed of operations, such as working with our master data, is seeing improvements of at least 15%. We can envision improvements of as much as 50% as we get better at using the systems and working with the data.”

TABLE 7 Asset Management Impact

	Before SAP S/4HANA	With SAP S/4HANA	Change	Change (%)
Asset management (FTEs)	104.2	81.6	22.6	22
Staff time value per year (\$M)	7.3	5.7	1.6	22

Source: IDC, 2019

As shown in Table 8, SAP S/4HANA also enabled a 32% increase in manufacturing and supply chain staff productivity, resulting in a business value of \$3.4 million annually. An organization said, “There is an efficiency specific to our manufacturing/supply chain teams because we’re able to pull data out to them and their performance is a lot faster. Processes like doing orders, and anything around shipments and supplies, are running much faster and that means that downstream employees are impacted. This is because the process for them to get products in and out is more efficient and accurate now because the applications that they run on are quicker.”

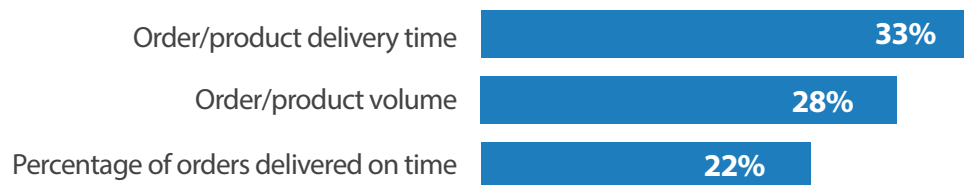
TABLE 8 Manufacturing and Supply Chain Team Impact

	Before SAP S/4HANA	With SAP S/4HANA	Change	Change (%)
Manufacturing and supply chain teams (FTE equivalent per organization per year)	153.6	202.8	49.2	32
Staff time value per year (\$M)	10.7	7.3	3.4	32

Source: IDC, 2019

Figure 6 shows supply chain–related KPI benefits. There were improvements in both order/product volume (28%) and order/product delivery time (33%).

FIGURE 6 Supply Chain–Related KPI Benefits



n=11 Source: IDC, 2019 (% improvement)

Study participants reported that the use of SAP S/4HANA enabled a 24% increase in staff productivity for sourcing and procurement teams. This translated into a business value of \$4.6 million (see Table 9).

TABLE 9 Sourcing and Procurement Teams Impact

	Before SAP S/4HANA	With SAP S/4HANA	Change	Change (%)
Sourcing and procurement teams (FTE equivalent per organization per year)	268.8	203.3	65.5	24
Staff time value per year (\$M)	18.8	14.2	4.6	24

Source: IDC, 2019

Interviewed organizations reported that with the deployment of SAP S/4HANA, they have improved the performance of their marketing teams (see Table 10). For these teams, productivity described as FTE equivalent per organization showed a 14% improvement, leading to a business value benefit of \$2.5 million. As one organization told IDC, *“SAP S/4HANA is definitely helping our marketing team because it’s more integrated with our reporting tools. It gives them insights that they need to accelerate their productivity and sales performance. What they do with that data is take it and have relevant conversations and interactions, so they are more collaborative. They are about 20% more effective as a result.”*

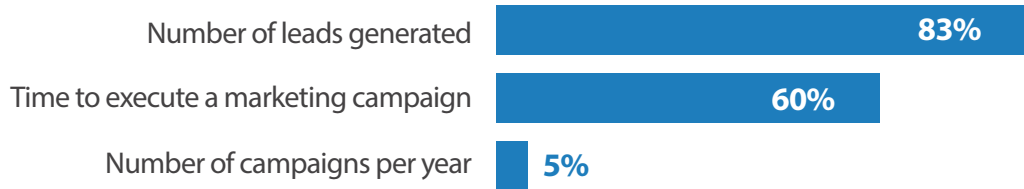
TABLE 10 Marketing Teams Impact

	Before SAP S/4HANA	With SAP S/4HANA	Change	Change (%)
Marketing teams (FTE equivalent per organization per year)	259.3	223.2	36.1	14
Staff time value per year (\$M)	18.1	15.6	2.5	14

Source: IDC, 2019

Figure 7 shows marketing-related KPI benefits. Especially noteworthy is a 60% improvement in the time needed to execute a marketing campaign and an 83% improvement in the number of leads generated.

FIGURE 7 Marketing-Related KPI Benefits



n=11 Source: IDC, 2019 (% improvement)

In addition to marketing, interviewed organizations reported benefits for sales operations. These impacts are shown in Table 11. SAP S/4HANA enabled a 14% increase in staff productivity, resulting in an annual business benefit of \$9.6 million.

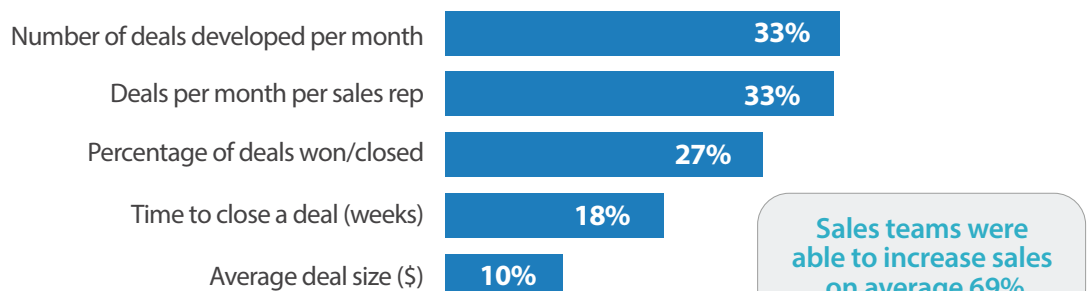
TABLE 11 Sales Team's Impact

	Before SAP S/4HANA	With SAP S/4HANA	Change	Change (%)
Sales teams (FTE equivalent per organization per year)	1,005.7	868.8	136.9	14
Staff time value per year (\$M)	70.4	60.8	9.6	14

Source: IDC, 2019

Figure 8 shows sales-related KPI benefits. The biggest gains were seen in several areas including number of deals developed per month (33%), percentage of deals won/closed (27%), and deals per month per sales rep (33%).

FIGURE 8 Sales-Related KPI Benefits



n=11 Source: IDC, 2019 (% improvement)

Table 12 shows the impact on the HR team. SAP S/4HANA enabled an 11% increase in staff productivity. This in turn resulted in a \$6.8 million business value benefit. One study participant commented on these benefits: *“We are much more able to work effectively because of the capabilities of S/4HANA in terms of research and development. HR, when they are recruiting, have requirement-driven processes and they are able to get a full traceability of the requirements to the data. There’s also advantages in terms of managing different assets, the talent pool, so it’s definitely helped out HR a lot. They are about 15% more productive.”*

TABLE 12 HR Team’s Impact

	Before SAP S/4HANA	With SAP S/4HANA	Change	Change (%)
Human resources teams (FTEs)	858.5	760.8	97.7	11
Staff time value per year (\$M)	60.1	53.3	6.8	11

Source: IDC, 2019

SAP S/4HANA also reduced the incidence of unplanned downtime. Frequency per year was reduced from 39.8 to 3.9, a 90% improvement. User FTE impact, lost productivity due to unplanned outages, declined from 11.1 to 1.7, an 84% improvement. Additional metrics are presented in Table 13.

TABLE 13 Unplanned Downtime Impact

	Before SAP S/4HANA	With SAP S/4HANA	Difference	Benefit (%)
Frequency per year	39.8	3.9	35.9	90
Time to resolve (hours)	3.4	2.4	1	29
User FTE impact (lost productivity due to unplanned outages)	11.1	1.7	9.3	84
Value of lost productivity per year (\$M)	7.9	1.2	6.7	84

Source: IDC, 2019

IDC also evaluated the business aspects of unplanned downtime improvements. SAP S/4HANA reduced the revenue cost of business risk by \$693,000 (see Table 14).

TABLE 14 Unplanned Downtime Improvements

	Per Organization
Total revenue loss avoided per year per organization	\$692,917
Assumed operating margin	15%
Total recognized revenue per year	\$103,938

Source: IDC, 2019

Study participants reported that the use of SAP S/4HANA had significant revenue impacts. SAP customers experienced a 3.1% increase in revenue from improved business operations and productivity (see Table 15). This amounted to total additional annual revenue of \$42,100,000 (\$112,490 per 100 employees).

TABLE 15 Revenue Impact

Business Impact — Increased Revenue	Per Organization
Average revenue increase percentage	3.10
Total additional revenue per year	\$42,100,000
Assumed operating margin	15%
Total recognized revenue per year	\$6,315,000

Source: IDC, 2019

ROI Summary

Table 16 presents IDC's analysis of the financial and investment benefits related to study participants' use of the SAP S/4HANA solution. IDC calculates that, on a per organization basis, interviewed organizations will achieve total discounted five-year benefits of \$183.85 million (\$433,200 per 100 employees), based on IT/ERP efficiencies and increased business results. These benefits compare with projected total discounted investment costs over five years of \$28.41 million on a per organization basis (\$66,900 per 100 employees). At these levels of benefits and investment costs, IDC calculates that these organizations will achieve a five-year ROI of 547% and break even on their investment in 10.6 months.

TABLE 16 Five-Year ROI Analysis

Five-Year ROI Analysis	Per Organization	Per 100 Employees
Benefit (discounted)	\$183.85 million	\$433,200
Investment (discounted)	\$28.41 million	\$66,900
Net present value (NPV)	\$155.44 million	\$366,200
ROI (NPV/investment) (%)	547	547
Payback (months)	10.6	10.6
Discount factor (%)	12	12

Source: IDC, 2019

CHALLENGES/OPPORTUNITIES

Moving to SAP S/4HANA for an ERP environment in support of business operations means a business will face some challenges as well as opportunities. Understanding the desired outcome/end state and navigation is key to success with SAP S/4HANA.

SAP S/4HANA is more than a technical upgrade. Successful S/4HANA deployments almost always have the backing and support from the LOBs. However, most IT departments aren't ready to go after this buy-in. Because IT is not aware of how S/4HANA will actually be different from the technology the business is running today, IT doesn't understand the need and how to communicate S/4HANA's differentiators in terms that make sense to LOB owners. IT needs to focus on the business outcomes achieved by SAP S/4HANA such as lower costs, more visibility, and powerful analytics.

SAP S/4HANA makes significant changes to the data model of traditional ERP systems. These changes are the drivers of the value illustrated in this paper, but these changes can also render many of the enterprise's previous customizations incompatible. This can be a daunting problem to quantify when planning a deployment, especially if you have years or even decades' worth of customizations. Understanding the current vs. the future state is critical to remove this challenge.

For both challenges, SAP offers free, self-service tools to both determine the opportunity for business value (Business Scenario Recommendations tool) as well as to plan the various technical steps and adaptations that will be needed (SAP Readiness Check). These tools can give customers a running start on their projects and help them determine where they will need to bring in expert help from SAP or its partners to reduce and remove the challenges.

And finally, as the number of data sources grows (social, geospatial, sensor, visual, etc.), managing, merging, and analyzing these pools of data at speed and scale, will continue to be a tremendous challenge for ERP customers hoping to move toward a digitally transformed future. SAP S/4HANA customers note that the ability to consolidate and better manage business is a long-term goal which is driving them to seek out the advantages of the in-memory database of SAP HANA.

CONCLUSION

SAP S/4HANA is clearly providing value to enterprises of all sizes. Tangible benefits, ranging from increased employee, business, and IT staff productivity to risk mitigation and generating new business, drive business outcomes that are substantial. Digital innovation, intelligence, and real-time information are moving organizations from a legacy limping enterprise to a digital-enhanced intelligent enterprise. SAP S/4HANA is a business game changer for enterprises that have purchased, installed, and continually use the product.

APPENDIX

Methodology

IDC's standard ROI methodology was utilized for this white paper. This methodology is based on gathering data from current users of SAP S/4HANA as the foundation for the model. Based on interviews with organizations using it, IDC performed a three-step process to calculate the ROI and payback period:

- 1. Gathered quantitative benefit information during the interviews using a before-and-after assessment of the impact of SAP S/4HANA.** In this study, the benefits included are staff time savings and productivity benefits and operational cost reductions.
- 2. Created a complete investment (five-year total cost analysis) profile based on the interviews.** Investments go beyond the initial and annual costs of using SAP S/4HANA and can include additional costs related to migrations, planning, consulting, and staff or user training.
- 3. Calculated the ROI and payback period.** IDC conducted a depreciated cash flow analysis of the benefits and investments for the organizations' use of SAP S/4HANA over a five-year period. ROI is the ratio of the net present value (NPV) and the discounted investment. The payback period is the point at which cumulative benefits equal the initial investment.

IDC bases the payback period and ROI calculations on several assumptions, which are summarized as follows:

- Time values are multiplied by burdened salary (salary + 28% for benefits and overhead) to quantify efficiency and manager productivity savings. For purposes of this analysis, based on the geographic locations of the interviewed organizations, IDC has used assumptions of an average fully loaded \$100,000 per year salary for IT staff members and an average fully loaded salary of \$70,000 for non-IT staff members. IDC assumes that employees work 1,880 hours per year (47 weeks x 40 hours).
- The net present value of the five-year savings is calculated by subtracting the amount that would have been realized by investing the original sum in an instrument yielding a 12% return to allow for the missed opportunity cost. This accounts for both the assumed cost of money and the assumed rate of return.
- Further, because IT solutions require a deployment period, the full benefits of the solution are not available during deployment. To capture this reality, IDC prorates the benefits on a monthly basis and then subtracts the deployment time from the first-year savings.

Note: All numbers in this document may not be exact due to rounding.

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