

The Business Value of SAP Digital Supply Chain Solutions with SAP S/4HANA Cloud



Simon Ellis
Group Vice President,
Manufacturing and Supply Chain, IDC



Mickey North Rizza
Group Vice President,
Enterprise Software, IDC



Matthew Marden
Research Vice President,
Business Value Strategy Practice, IDC



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Executive Summary

As companies across all industries continue to modernize their IT landscape and increasingly move to multifunctional platforms, the ability to seamlessly integrate the supply chain with enterprise resource planning (ERP) grows in importance. So many companies have discovered over the past five years that if the supply chain doesn't work, the business doesn't work! In IDC's 2024 *Worldwide Supply Chain Survey*, when we asked businesses about their ability to respond effectively to market disruptions, 53% of companies cited either outdated legacy applications or poor system integration as the primary causes of poor performance. This means that the technology foundation drives a significant amount of value.

IDC conducted research with organizations using SAP Digital Supply Chain (DSC) software with SAP S/4HANA Cloud to understand the impact on their supply chain operations and business outcomes. Study participants reported significant benefits from increasing visibility and automation across their supply chain operations that foster cost savings, efficiencies, and business gains.

Based on interviews with current SAP DSC with SAP S/4HANA Cloud customers, IDC calculates that they will realize annual benefits worth \$123,700 per 100 users of SAP DSC with SAP S/4HANA Cloud (\$10.91 million per organization) by:

- **Automating and integrating supply chain operations**, leading to improved delivery timeliness, increased digitization, and higher business throughput
- **Improving visibility and understanding of inventory**, avoiding inventory stockouts, and optimizing inventory costs
- **Providing enhanced operational data to and supporting collaboration between lines of business (LOBs) and those working on the supply chain**, which improves operational efficiencies and leads to higher team productivity levels
- **Achieving better business outcomes** by enhancing strategic decision making, providing higher quality and timeliness of goods and services to customers, and having the ability to address business demand



Click highlights for related content in this document.

BUSINESS VALUE HIGHLIGHTS

337%
three-year ROI

\$123,700
average annual benefits per 100 users of SAP DSC

14%
faster to fulfill orders

9%
more shipments tendered digitally

27%
fewer inventory stockouts

12%
average productivity gain, impacted line-of-business users

\$51.75 million
in higher revenue per organization per year

Situation Overview

Supply chains have had both the blessing and pressure of coming through multiple years of supply disruptions and demand volatility, including disruptions that show no signs of abating. The perceived strategic value of end-to-end supply chains may never have been higher than it is at this moment in history and is reflected in robust IT investment (forecasted by IDC at 7% year over year through 2027). This places pressure on supply chains to evolve quickly but carries the benefit of prioritized investment in capabilities, processes, and people.

IDC sees a few consistent topics that, while not new to supply chains, have taken on added weight in recent years. In no particular order, these are the ever-present search for efficiency (cost, sustainability, performance), resiliency (responsiveness, visibility, agility), and optimization (automation, AI/ML, digitization). These developments and pressures are all stacking on top of a recent history of digital transformation in supply chains. Companies are at varying levels of maturity in their digital journey, requiring continued investment in their organizational and technological capabilities. Indeed, these show up throughout our discussions with manufacturers and retailers.

SAP Supply Chain Management

SAP is a long-tenured provider of supply chain applications across the supply chain from design, planning, and manufacturing all the way through to delivery and operations. Integrating SAP DSC solutions with SAP S/4HANA Cloud in a modular approach is designed to accelerate supply chain innovation.

SAP's goal is to accelerate the digital supply chain journey while keeping core processes stable. This means using the latest innovations, both process and technology, to help optimize and streamline the supply chain, provisioning all products in one system/platform, offering modular/flexible enhancements to core enterprise processes, and enabling central hub scenarios connected to instances of SAP S/4HANA.

The Business Value of SAP Digital Supply Chain Solutions with SAP S/4HANA Cloud

Study Demographics

IDC carried out in-depth interviews with a sample of organizations using SAP DSC with SAP S/4HANA Cloud to understand its impact on their supply chain operations and business outcomes. Interviews were designed to capture details about both quantitative and qualitative impacts for these organizations using SAP DSC solutions and SAP S/4HANA Cloud.

Table 1 provides firmographic data of the interviewed organizations, showcasing a wide range of industries and sizes, which underscores the versatility of SAP DSC with S/4HANA Cloud. Study participants were generally enterprise level in terms of the number of employees (average of 37,408) and annual revenue (\$28.01 billion). As noted, they offered experiences from varied geographical and industry perspectives, with representation from North America, EMEA, and APAC, and diverse industry verticals, including the consumer products (2) and automotive, chemical and petroleum, manufacturing, natural resources, retail, and technology industry sectors.

TABLE 1
Demographics of Interviewed Organizations

	Average	Median
Number of employees	37,408	6,125
Number of IT staff	557	137
Number of business applications	22	16
Annual revenue	\$28.01B	\$291.00M
Countries	United States (3), Belgium, India, Netherlands, New Zealand, Singapore	
Industries	Consumer products (2), automotive, chemical and petroleum, manufacturing, natural resources, retail, technology	

n = 8; Source: IDC Business Value In-Depth Interviews, April 2024

The Choice and Use of SAP DSC with SAP S/4HANA Cloud

Organizations chose SAP DSC with SAP S/4HANA Cloud for its robust functionalities that align with their diverse business requirements and their common need for a unified supply chain platform. They described the deployment of SAP DSC with SAP S/4HANA Cloud as an upgrade from either another supply chain platform or approach that no longer met their needs in terms of functionality, performance, and scalability. They realized that they were not only incurring cost and operational inefficiencies but also putting their business strategies at risk without a sufficiently robust supply chain platform. They explained that SAP DSC's breadth and quality won them over, which they concluded would allow them to establish a solid foundation for their business operations.

Interviewed SAP customers spoke in detail about their selection considerations:

Right functionalities for business needs:

"We evaluated other options, and we evaluated them for a full transformation, not just for digital supply chain capability, but also for finance capability, analytical capabilities, planning, etc. SAP DSC had the functionality and capabilities that would meet our diverse business needs."

Single solution for use across a company:

"We used to have every site on its own ERP and nothing integrated at all. It was difficult to manage, and the idea was to implement one solution with SAP DSC and SAP S/4HANA Cloud and move all the other sites to the same solution with intercompany flows, integrated supply chain management, and so on."

Breadth and quality as a business platform:

"We had reliability, scalability, and other issues we wanted to address, so we did an evaluation of all the different solutions. We found that SAP DSC could address the entire breadth from finance, HR, asset management, and procurement."

Integration with suppliers yielding visibility-related benefits:

"SAP DSC gives us the capabilities to handle our suppliers better because it is integrated with our suppliers. They use our system to update their information and interface with our system, which gives us visibility and direct access to their inventory."

Table 2 (next page) provides an overview of the study participants' use of SAP DSC with SAP S/4HANA Cloud. As shown, they are supporting significant supply chain and business operations, as indicated by the use of an average of seven manufacturing facilities and warehouses/distribution facilities for an average of 2,952 products. The centrality of

supply chain activities and SAP DSC with SAP S/4HANA Cloud is evident in study participants’ reporting that they drive three-quarters of their total revenue, on average, with the platform. For additional details, please see **Table 2**.

TABLE 2
Interviewed Organizations’ SAP DSC with SAP S/4HANA Cloud Environments

	Average	Median
Number of manufacturing facilities	7	3
Number of warehouses/distribution facilities	7	4
Number of products	2,952	1,875
Number of day-to-day users	403	190
Number of users whose work relates to/supported by SAP DSC	8,816	475
Percent of revenue supported by SAP DSC	75%	82%

n = 8; Source: IDC Business Value In-Depth Interviews, April 2024

Business Value and Quantified Benefits of SAP Digital Supply Chain Management with SAP S/4HANA Cloud

The use of SAP DSC with SAP S/4HANA Cloud by organizations interviewed for this study has led to significant improvements in their supply chain capabilities and efficiencies and the ability to drive improved business outcomes with their supply chains. Key benefits identified include the alignment of financial forecasts with operational realities, automation and integration of business processes, enhanced customer service levels through improved visibility, and the ease of automating across various business areas. These advantages have translated into more accurate inventory information, better planning capabilities, and significant productivity benefits, delivering substantial value to the organizations.

Interviewed SAP DSC with SAP S/4HANA Cloud customers summarized the core value proposition for their organizations:

Common view aligns plans with business reality and enables execution:

“We get one live common view with SAP DSC, which facilitates collaboration among different departments in the planning process. It allows input and ownership of market supply and demand plans with regional-level ownership ... SAP DSC ensures that financial forecasts and plans are aligned with operational realities and actual market consumption, so we get a highly detailed and accurate representation for improved decision making.”

Automation and integration of business processes:

“The automation of processes of SAP DSC has been the most significant benefit for us. Previously, we were using different products, and there were gaps in the integration of those products, which required a lot of manual, low-value activities. But now, with SAP DSC, a lot of the processes are fully integrated end to end.”

Visibility that improves customer service levels and avoids costly stockouts:

“Because we have better visibility into our supply chain with SAP DSC, we are delivering faster to our customers. And with better visibility into our raw materials, we can plan better to avoid stockouts and disappointing customers.”

Understanding of KPIs to make business decisions:

“The business benefits of SAP DSC are having a complete overview of our business, so we can easily measure KPIs. We have all the information at our fingertips, and people are forced to follow proper procedures.”

Based on interviews with current SAP DSC with SAP S/4HANA Cloud customers, IDC calculates that they will realize annual benefits worth \$123,700 per 100 users of SAP DSC with SAP S/4HANA Cloud (\$10.91 million per organization) in the following areas:

- **Business productivity benefits:**

Study participants achieve better business results by maintaining more efficient supply chain operations, making better strategic business decisions, and improving the quality of services and products delivered to their customers. IDC puts the value of net revenue gains at an annual average of \$64,100 per 100 users of SAP DSC (\$5.65 million per organization).

- **Inventory benefits:**

Study participants better understand inventory requirements and ensure that they have inventory to meet customer demand. IDC estimates that they will reduce business losses associated with inventory stockouts and reduce direct inventory costs by an annual average of \$33,600 per 100 users of SAP DSC (\$2.97 million per organization).

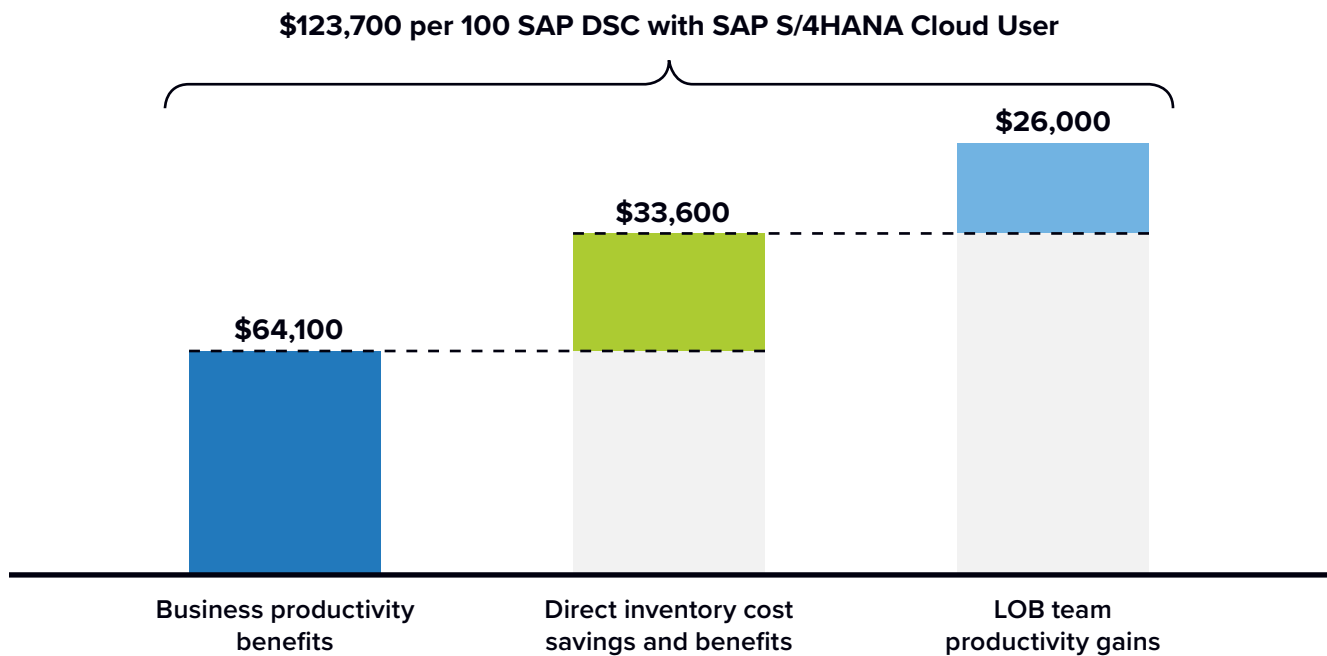
• **Line-of-business team productivity gains:**

Teams/employees that work within study participants’ supply chain organizations benefit from enhanced visibility, improved data quality, and increased cross-organizational collaboration. IDC quantifies the value of productivity gains for these line-of-business teams as an annual average of \$26,000 per 100 users of SAP DSC (\$2.29 million per organization).

FIGURE 1

Average Annual Benefits

(\$ per year per 100 SAP DSC users)



n = 8; Source: IDC Business Value In-Depth Interviews, April 2024

For an accessible version of the data in this figure, see [Figure 1 Supplemental Data](#) in Appendix 3.

Supply Chain and Delivery Benefits

Organizations must establish efficient and effective supply chain operations to create and maintain any competitive edge. They cannot afford delivery delays or communication errors or even to inconvenience customers, partners, or other third-party contributors to their businesses. As noted above, study participants recognized that their previous supply chain platforms, whether based on manual processes or previous-generation supply chain software, were no longer up to the task in the digital business environments in which they now must compete.

Interviewed organizations consistently emphasized the role of SAP DSC with SAP S/4HANA Cloud in achieving more accurate delivery to customers, across-the-board business planning efficiencies, and consistent integration and functionality. They attributed these gains to deep integration across teams and operations, automation that increases consistency, and improved visibility into data and status. These improvements have fostered better cross-organizational visibility and platform functionality, which enables study participants to respond more swiftly to customer and business partner needs. As a result, their supply chain operations, which take them from procuring supplies and inventory to taking orders and producing goods and services and then on to customer delivery, serve as a more effective foundation for their business efforts.

Interviewed SAP customers detailed the improvements that they have achieved in terms of supply chain activities with SAP DSC with SAP S/4HANA Cloud:

More accurate inventory information supporting better delivery to customers:

“With SAP DSC, we have better planning capabilities, so more accurate planning, which is important for our manufacturing and delivery activities. The result is more insights on our inventory and stock levels, which all leads to more accurate delivery to our customers.”

Across-the-board business planning efficiencies:

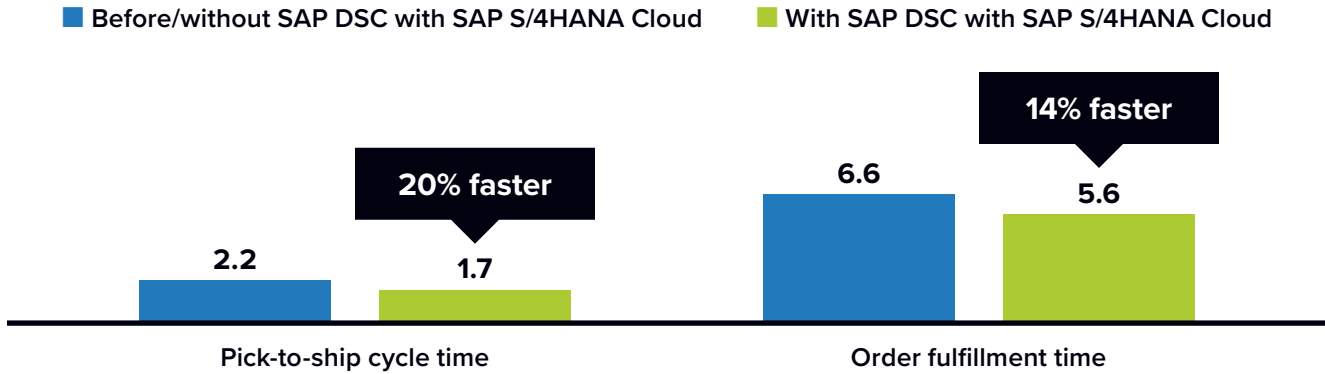
“SAP DSC helps us in planning for demand, supply, raw materials, production, and logistics. And it’s saving time on people, the manpower, by almost 15% from the efficiency and development within the system.”

Integration and functionality ensuring consistency:

“SAP DSC is much easier to integrate with third parties. That part of the flow and the parts where we’ve already set it up is faster and more automated ... It’s a lot more sustainable when it comes to moving the business quickly, and it’s a lot more reliable. In the past, we could sometimes ship in two days, and now, we can always ship in two days.”

Study participants reported achieving several benefits in terms of delivering goods and services to customers, including tightening the windows in which they prepare and deliver goods for their customers with SAP DSC with SAP S/4HANA Cloud. On average, they have reduced their pick-to-ship cycles by 20%, which shaves half a week off the average cycle and brings down their overall time to fulfill orders by 14%, the equivalent of moving a full week faster (see **Figure 2**, next page).

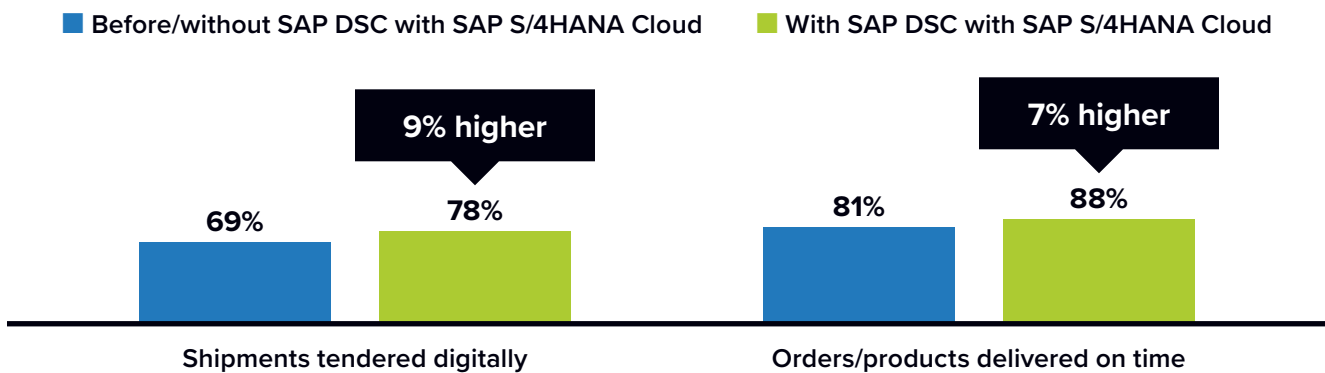
FIGURE 2
Impact on Shipping and Product Order Fulfillment Time
 (Number of weeks)



n = 8; Source: IDC Business Value In-Depth Interviews, April 2024
 For an accessible version of the data in this figure, see [Figure 2 Supplemental Data](#) in Appendix 3.

The SAP customers interviewed have also achieved important gains in terms of how they interact with and support their customers. They have digitized their businesses, increasing the number of shipments tendered digitally by an average of 9%, which typically provides a more streamlined customer experience and limits the likelihood of errors. Further, they have increased the share of product delivery that is on time by an average of 7%, which represents a significant gain in terms of their ability to serve their customers (see **Figure 3**).

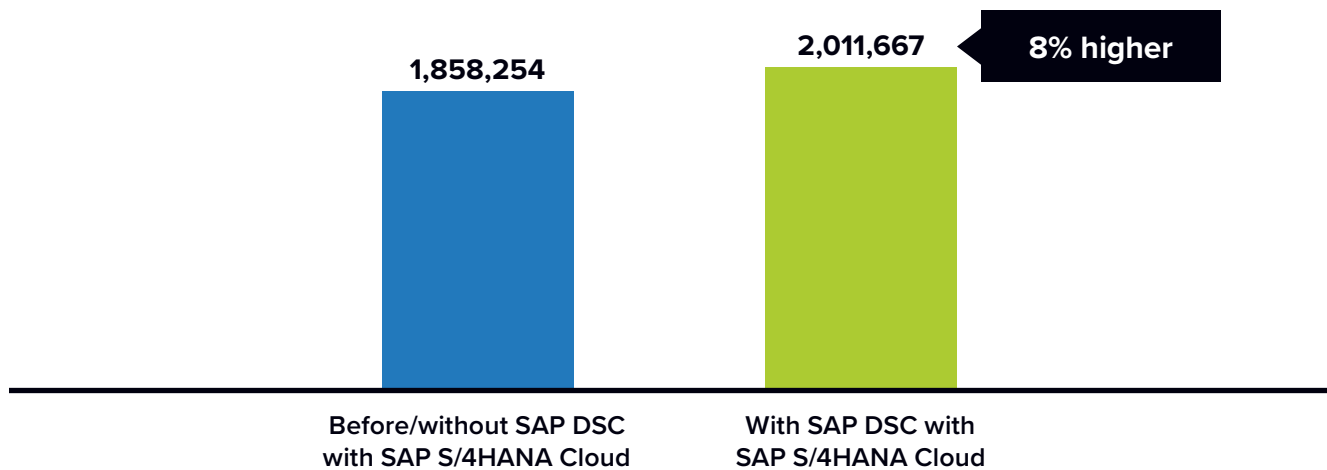
FIGURE 3
Impact on Shipping and Product Order Fulfillment
 (Percent of orders)



n = 8; Source: IDC Business Value In-Depth Interviews, April 2024
 For an accessible version of the data in this figure, see [Figure 3 Supplemental Data](#) in Appendix 3.

Overall, the supply chain–related benefits achieved by SAP DSC with SAP S/4HANA Cloud generate increased business and employee productivity. One finding illustrative of this gain for SAP customers is that they deliver an average of 8% more goods and services with SAP DSC with SAP S/4HANA Cloud, a significant jump in their overall business capacity that ultimately translates to greater ability to customize for customers and help generate higher revenue.

FIGURE 4
Impact on Total Order Volume
 (Number per year per organization)



n = 8; Source: IDC Business Value In-Depth Interviews, April 2024

Inventory Benefits

Study participants’ business success rests in large part on their ability to ensure that they maintain the delicate balance of having inventory available to meet customer demand without carrying so much inventory that it impacts their profit. The costs of going too far in one direction are clear. Insufficient inventory means losing potential business and delivering a poor customer experience. Too much inventory sinks available funds into inventory, takes staff time to manage, and risks inventory obsolescence or spoilage.

Interviewed organizations reported consistently that SAP DSC with SAP S/4HANA Cloud provides much-improved visibility into inventory levels and consistent and insightful data that allows for better inventory management. As a result, study participants can move rapidly to add inventory as needed or reduce order volumes in times of lower demand.

Study participants provided examples of these inventory-related benefits achieved with SAP DSC with SAP S/4HANA Cloud:

Significant value of better understanding inventory and product quality:

“We have better forecasting, improved inventory visibility, and, therefore, improved management and visibility of aged inventory with SAP DSC. We have a better view of our product quality globally, and we also have transparency into our liability around product quality issues.”

Better visibility, which means holding less inventory:

“Because our inventory management has been better with SAP DSC, we are able to manage with less inventory by four fewer days’ worth of inventory, which helps us in the working capital.”

More accurate information about inventory:

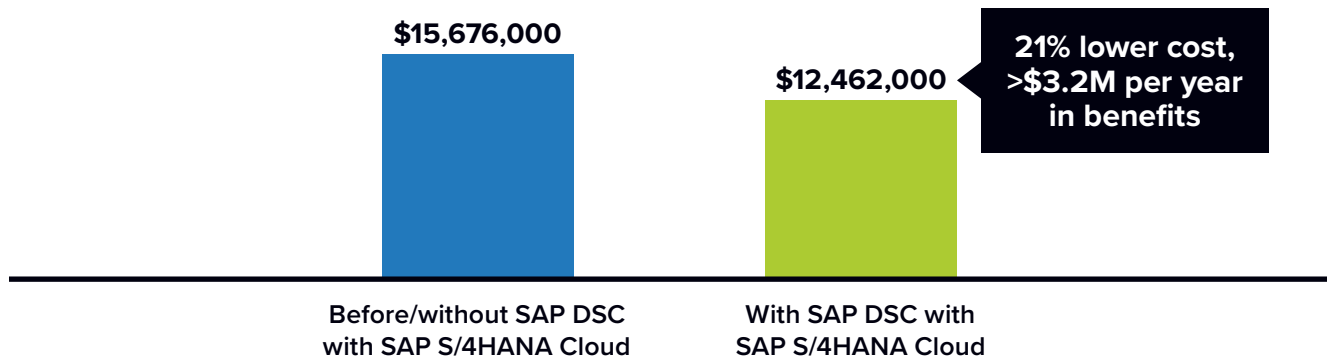
“For our supply chain, SAP DSC provides control over accurate data for managing inventories, so it’s given us connectivity to real data, which makes us more reliable and gives us a single source of truth.”

Study participants reported that they have minimized the frequency of inventory stockouts, which often carry substantial business costs. One interviewed organization noted:

“We have a lot more visibility into inventory, and SAP DSC automatically flags and takes action when stock is too low. We have learned a lot about how to use master data, when we have to order, what we have to order, and so on. So, of course, that is running a lot better.”

On average, interviewed SAP customers reported reducing the number of stockouts they experience by 27% and lowering business losses associated with stockouts by 21%, yielding cost avoidances of more than \$3.2 million per organization per year.

FIGURE 5
Cost of Inventory Stockouts
 (Cost per year per organization)



n = 8; Source: IDC Business Value In-Depth Interviews, April 2024

In addition to these significant benefits from minimizing inventory stockouts, study participants reported better managing their inventory turnovers and optimizing their total inventory spend:

- One percent lower average inventory costs, saving \$1.15 million per year
- Three percent more inventory turnovers, thereby avoiding spoilage and obsolescence
- Ten percent faster inventory turns, ensuring that they have current inventory as demanded by customers

Line-of-Business User Benefits

Study participants rely on numerous teams to run and deliver value to their customers through their supply chains. They explained that these teams have too often been inhibited rather than enabled by their supply chain platforms. They described struggling to share and obtain timely and accurate data and operating too frequently in silos that limited the ability of these teams to collaborate, innovate, and drive effective business operations.

Interviewed organizations highlighted the productivity impact of SAP DSC with SAP S/4HANA Cloud on these teams responsible for running and leveraging supply chain activities, with notable productivity increases across supply chain, manufacturing, warehouse, logistics, procurement, internal sales, and inventory management teams. These benefits, in terms of allowing these teams to work more effectively, underscore how SAP DSC with SAP S/4HANA Cloud has enhanced data access, collaboration, decision-making capabilities, and business innovation.

Interviewed SAP customers provided examples of how these teams work more effectively with SAP DSC with SAP S/4HANA Cloud:

Cross-team efficiencies and productivity gains:

“We see productivity or efficiency improvements across five teams—finance, HR, procurement, maintenance, and IT—with SAP DSC. For procurement, we estimated 20% because of end-to-end integration; for finance and HR, it was 10%–15% because we have automated manual activities such as recruitment onboarding.”

Ease of access to operational information, saving time:

“Our demand planning and the supply planning team have been impacted because of the information that is now readily available with SAP DSC. This team has about 20 people, and they have gained 20% of their time back now from the manual activities.”

Table 3 shows the significant impact of using SAP DSC with S/4HANA Cloud across various supply chain–related LOB teams. Overall, IDC calculates that these teams will see average productivity gains of 12% with SAP DSC with SAP S/4HANA Cloud, enabling them to work at a higher productivity level worth an average of 48.2 full-time employees (FTEs) per organization. Each row in the table illustrates the increase in the work capacity of the existing employees. For the supply chain, for example, the current teams averaging 102.3 employees (across the companies participating in the study) are now able to produce as if they were a team of 118.

TABLE 3
Line-of-Business Productivity Gains

Average per Organization, Equivalent Productivity per Team in FTEs	Before/Without SAP DSC with SAP S/4HANA Cloud	With SAP DSC with SAP S/4HANA Cloud	Benefit	Benefit
Supply chain	102.3	118.0	15.7	15%
Manufacturing and floor	97.9	107.9	10.0	10%
Warehouse	18.6	20.6	2.0	11%
Logistics	85.8	97.3	11.5	13%
Procurement	22.0	25.0	3.0	14%
Internal sales	49.8	52.8	3.0	6%
Inventory managers	22.2	25.1	2.9	13%
Total productivity level, FTEs	398.6	446.8	48.2	12%
Annual value of productivity	\$27.90M	\$31.28M	\$3.37M	12%

n = 8; Source: IDC Business Value In-Depth Interviews, April 2024

Business Benefits

Importantly, study participants connected their use of SAP DSC with SAP S/4HANA Cloud and the supply chain operational, inventory, and team productivity benefits to improved business outcomes. They explained that they can now make more considered, nuanced strategic business decisions because they have access to more insightful and contextualized data and information. Further, they emphasized the value of ensuring higher customer satisfaction levels by improving their on-time delivery capabilities and limiting the frequency with which they do not have the right inventory to meet customer demand.

Interviewed SAP customers provided specific examples of these types of business benefits:

Better decision making enabling business:

“SAP DSC allows us to make faster, more informed decisions around executing sales deliveries in our supply chain. Basically, management or leadership decision making that considers combined sales, operations, and finance information gain from good, robust data and information so that they can make better decisions.”

Automated inventory management enabling business innovation:

“SAP DSC provides automated inventory management, starting from the supplier to the OEM to the dealer. This allows dealers and OEMs to compare data with customer orders to see if something is needed or has changed, which makes it easier to innovate through better forecasting.”

Better real-time decision making:

“SAP DSC allows for more real-time decision making and full transparency and integrity of our plan through to the financial implications, basically, and everything in between.”

The freeing up of bandwidth to support business:

“We do less manual work with SAP DSC, so we can devote proper attention to customer-facing activities. Previously, we spent a lot more time minimizing reliability issues ... And we were just so busy with everything else.”

As shown in **Table 4** (next page), the business impact of using SAP DSC with SAP S/4HANA Cloud for study participants is significant. On average, interviewed SAP customers attributed revenue gains of \$51.75 million per organization to their use of SAP DSC with SAP S/4HANA Cloud. This sizable revenue increase reflects how study participants have leveraged the capabilities of SAP DSC with SAP S/4HANA Cloud as their primary supply chain platform to put themselves in a better competitive position and thus address, win, and successfully deliver business opportunities.

TABLE 4
Business Productivity Impact: Higher Revenue

	Per Organization	Per 100 Users
Higher revenue	\$51.75M	\$587,000
Assumed margin	15%	15%
Higher net revenue	\$7.76M	\$88,100

n = 8; Source: IDC Business Value In-Depth Interviews, April 2024

ROI Summary

Table 5 provides IDC’s assessment of the benefits and investment costs for study participants related to their use of SAP DSC with SAP S/4HANA Cloud. IDC calculates that interviewed SAP customers will achieve three-year discounted benefits in terms of higher net revenue, increased line-of-business team productivity, and inventory-related benefits worth an average of \$24.65 million per organization (\$279,600 per 100 SAP DSC with S/4HANA Cloud users). They will earn these benefits based on an average three-year discounted investment of \$5.64 million per organization (\$63,900 per 100 SAP DSC with S/4HANA Cloud users). These benefits and investment costs would result in an average three-year net present value (NPV) of \$19.02 million per organization (\$215,700 per 100 SAP DSC with S/4HANA Cloud users), which will yield an average three-year ROI of 337% for study participants.

TABLE 5
Three-Year ROI Analysis

	Per Organization	Per 100 Users
Benefit (discounted)	\$24.65M	\$279,600
Investment (discounted)	\$5.64M	\$63,900
NPV	\$19.02M	\$215,700
ROI (NPV/investment)	337%	337%
Payback	15 months	15 months
Discount factor	12%	12%

n = 8; Source: IDC Business Value In-Depth Interviews, April 2024

Challenges/Opportunities

Although the ROI for SAP DSC with SAP S/4HANA Cloud is highly compelling, there are some structural impediments. Although most companies IDC speaks with do expect that they will eventually adopt these modern tools, resources or funding can be a challenge. Although updates and configurations for tools in the cloud are often effective at mitigating functional gaps/opportunities, historical customizations may also slow progression — particularly if the usefulness of many is unclear.

According to IDC's 2024 *SaaSPath* survey, ease of integration, robust data capability, and ease of implementation are enablers of investment.

Commonly cited challenges include high costs/fees, and, from IDC's *SaaSPath* survey, many cite difficulty in migration services or data and an inability to recommend or add apps to streamline their business processes or make them more efficient and effective. Regardless, the return on investment with the implementation of these modern tools will outweigh these challenges over time.

Conclusion

Many companies have discovered over the past five years that if the supply chain doesn't work, the business doesn't work! Modernizing tools, particularly those as critical as supply chain and ERP, can mean the difference between weak and strong business performance. An optimized supply chain can be resilient and efficient as well as a significant source of competitive differentiation.

IDC's study shows how the integration of SAP Digital Supply Chain solutions with SAP S/4HANA Cloud offers a compelling value proposition for organizations seeking to optimize their supply chain operations and drive improved business outcomes through their supply chain activities. The significant revenue gains, cost savings, and productivity gains documented in this study underscore the strategic importance of adopting a robust digital supply chain platform. As businesses continue to navigate the complexities of the digital economy, the insights provided in this white paper underscore the potential of SAP DSC with SAP S/4HANA Cloud, positioning it as a critical enabler of competitive advantage and business success, as indicated by IDC's conclusion that study participants will realize an average three-year ROI of 337%.



Contact your SAP Partner to learn more.



Appendix 1: Methodology

IDC's standard Business Value/ROI methodology was utilized for this project. This methodology is based on gathering data from organizations currently using SAP Digital Supply Chain Management with SAP S/4HANA Cloud.

Based on interviews with organizations using SAP DSC with SAP S/4HANA Cloud, 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 using SAP DSC with SAP S/4HANA Cloud.** In this study, the benefits included cost savings, IT staff and line-of-business team efficiencies and productivity gains, reduced costs associated with risk, and higher revenue.
- 2. Created a complete investment (three-year total cost analysis) profile based on the interviews.** Investments go beyond the initial and annual costs of using SAP DSC with SAP S/4HANA Cloud 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 DSC with SAP S/4HANA Cloud over a three-year period. ROI is the ratio of the net present value 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 a number of 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 this analysis, IDC has used assumptions of an average fully loaded salary of \$100,000 per year for IT staff members and an average fully loaded salary of \$70,000 per year 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 three-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.
- IDC applies a net margin assumption (15%) for gross revenue gains attributed to interviewed organizations' use of SAP DSC with SAP S/4HANA Cloud, resulting in the net revenue calculations applied to IDC's model.

- Because use of SAP DSC with SAP S/4HANA Cloud requires 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.

Appendix 2: Quantified Benefits of Use of SAP DSC with SAP S/4HANA Cloud

Table 6 breaks down the areas in which IDC finds that study participants will achieve value through their use of SAP DSC with SAP S/4HANA Cloud. As shown, IDC calculates that they will realize total average annual benefits worth \$10.91 million per organization.

TABLE 6
Average Annual Benefits

Category of Value	Average Quantitative Benefit	Calculated Average Annual Value*
Lower direct inventory costs	1% lower inventory costs, saving \$1.15M per year	\$782,200
Lower cost of inventory stockouts	21% fewer inventory stockouts, saving \$3.21M per year in lost business/other direct costs	\$2.18M
Higher LOB user productivity levels	12% average productivity gain, 48.2 FTEs productivity gain, \$70,000 salary assumption	\$2.29M
Equipment maintenance cost savings	7% lower equipment maintenance costs, saving \$548,300 per year	\$372,600
Higher net revenue	\$51.75M higher revenue per year, 15% margin assumption	\$5.27M
Total average annual benefits	\$10.91M per organization	

n = 8; Source: IDC Business Value In-Depth Interviews, April 2024 (*includes 10.0 months' deployment time in year 1)

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

Appendix 3: Supplemental Data

This appendix provides an accessible version of the data for the complex figures in this document. Click “Return to original figure” below each table to get back to the original data figure.

FIGURE 1 SUPPLEMENTAL DATA

Average Annual Benefits per 100 SAP DSC with SAP S/4HANA Cloud Users

	\$ per year per 100 SAP DSC users
Business productivity benefits	\$64,100
Direct inventory cost savings and benefits	\$33,600
LOB team productivity gains	\$26,000
Average annual benefits per 100 SAP DSC with SAP S/4HANA Cloud Users	\$123,700

n = 8; Source: IDC Business Value In-Depth Interviews, April 2024

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FIGURE 2 SUPPLEMENTAL DATA

Impact on Shipping and Product Order Fulfillment Time

	Pick-to-ship cycle time	Order fulfillment time
Before/without SAP DSC with SAP S/4HANA Cloud	2.2	6.6
With SAP DSC with SAP S/4HANA Cloud	1.7	5.6
Difference	20% faster	14% faster

n = 8; Source: IDC Business Value In-Depth Interviews, April 2024

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Appendix 3: Supplemental Data (continued)

FIGURE 3 SUPPLEMENTAL DATA

Impact on Shipping and Product Order Fulfillment

	Shipments tendered digitally	Orders/products delivered on time
Before/without SAP DSC with SAP S/4HANA Cloud	69%	81%
With SAP DSC with SAP S/4HANA Cloud	78%	88%
Difference	9% higher	7% higher

n = 8; Source: IDC Business Value In-Depth Interviews, April 2024

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About the IDC Analysts



Simon Ellis

Group Vice President, Manufacturing and Supply Chain, IDC

As a program vice president, Simon Ellis is responsible for providing research, analysis, and guidance on key business and IT issues for manufacturers. He currently leads the supply chain strategies practices at IDC Manufacturing Insights, an IDC industry research company that addresses the current market gap by providing fact-based research and analysis on best practices and the use of IT to assist clients in improving their capabilities in critical process areas. Within the supply chain practice, Simon is directly responsible for research in the supply chain planning strategies practice while also managing the supply chain execution strategies practice. These supply chain practices specialize in advising clients on supply chain network design, sales and operations planning, global sourcing (profitable proximity and low-cost sourcing), transportation, logistics, and more. He also supports IDC Retail Insights IT strategies practices.

[More about Simon Ellis](#)



Mickey North Rizza

Group Vice President, Enterprise Software, IDC

Mickey leads the Enterprise Applications and Strategies research service along with a team of analysts responsible for IDC's coverage of next generation of enterprise applications including digital commerce, employee experience, enterprise asset management and smart facilities, ERP, financial applications, HCM and payroll applications, procurement, professional services automation and related project-based solutions software, supply chain automation, and talent acquisition and strategies. In her role, Mickey and the team advises clients on these intelligent, modern, and modular enterprise applications for businesses of all sizes with an emphasis on the key trends, opportunities, innovation and the IT and Business Buyer concerns, requirements, and buyer behaviors..

[More about Mickey North Rizza](#)



Matthew Marden

Research Vice President, Business Value Strategy Practice, IDC

Matthew is responsible for carrying out custom business value research engagements and consulting projects for clients in a number of technology areas with a focus on determining the return on investment of their use of enterprise technologies. Matthew's research often analyzes how organizations are leveraging investment in digital technology solutions and initiatives to create value through efficiencies and business enablement.

[More about Matthew Marden](#)

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IDC Research, Inc.
140 Kendrick Street, Building B, Needham, MA 02494, USA
T +1 508 872 8200

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