The Business Value of Microsoft Dynamics 365 for Manufacturers

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BUSINESS VALUE HIGHLIGHTS

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$7.4 million
average annual benefits per 1,000 active users

301%
three-year return on investment

27%
more manufacturing process automation

15%
more production floor team productivity

85%
less unplanned asset downtime

40%
quicker order and product delivery time

10%
reduction in scrap costs

$467,000
in annual scrap costs savings

20%
more productive supply chain and procurement teams

$2.8 million
in revenue generated from improvements in the accuracy of project costs

20%
more productive inventory management teams

$3.5 million
in annual inventory-related cost savings

14%
more productive sales and marketing teams

29%
less time needed to close end-of-the-month books

18%
more productive invoice, finance, and accounts payable teams

Executive Summary

Manufacturers must connect multiple data models across their organizations and ecosystems to achieve and maintain high performance levels. This ensures consistent synchronization of go-to-market, research and development (R&D), production, supply chain, and service initiatives and a true life-cycle approach to innovating, producing, and delivering products to the end customer. A cloud-based platform is a critical investment to enable this approach for diverse scenarios, such as multiple factories connecting their OEE data to ensure consistent quality or supply chain partners sharing emissions data so they meet Scope 3 emissions regulations.

Through a series of in-depth interviews, IDC conducted research that explored the benefits organizations gained by using Microsoft Dynamics 365 to improve operational efficiency and drive innovation in the manufacturing industry.

Based on an extensive data set and employing a specialized Business Value methodology, IDC calculates that these customers will achieve benefits worth an annual average of $20.6 million per organization ($7.4 million per 1,000 active users) and a three-year return on investment (ROI) of 301% by:

- Improving the overall manufacturing process by enhancing team performance, minimizing downtime, and optimizing supply chains and product delivery operations
- Improving manufacturing cost profiles through annual scrap savings while developing more accurate project cost estimates
- Enabling more efficient and effective marketing, inventory management, and operations, resulting in significant cost savings
- Enhancing financial operations by improving the performance of inventory finance and accounts payable (AP) teams and reducing the time needed to close monthly accounting

Situation Overview

Digital transformation (DX) is not new in manufacturing. Since the late 1990s/early 2000s, organizations have considered moving to product innovation platforms, demand-driven supply networks, and service-oriented architectures. Internet-based platforms started emerging, improving asset connectivity. Therefore, collecting data through IoT became possible, and a service-driven approach to operating businesses was evolving.

DX in manufacturing industries has progressed slowly, with most organizations currently at level two or three maturity on a five-stage maturity curve after years of small-scale experimentation, not wholesale transformation. However, we have reached an inflection point with digital in manufacturing, as organizations realize that they will be contending with massive amounts of data in the short and long term while continuing to face ongoing supply chain challenges, unexpected disruptions, and dynamic customer demand. The time for wholesale transformation is now, as digital tools such as the cloud, digital twins, AR/VR, and GenAI (among others) are available to optimize operations, seamlessly connect IT and operational technology systems, and truly incorporate demand into manufacturing process chains to achieve an Industry 4.0 approach that flexibly serves the end customer.

However, with all the discussion about advanced tech, such as AI and digital twins, most manufacturers we speak with are focused on a mix of long-time, classic initiatives and new, advanced approaches. They realize that becoming an advanced, digital-first company starts with a cloud-based platform that connects the manufacturing process chain, from ideation and development through service and customer experience.

Through this approach, manufacturers are better able to realize the common initiatives they are focused on today:

- **Advanced process control:** automating production operations and quality management
- **Advanced analytics and software:** for expedited, optimized decision support
- **Immersive environment:** moving toward a model-based approach to collaboration and operation
- **Smart workforce:** augmenting decision-making through access to data and knowledge (e.g., using tools such as GenAI)
- **Smart factory:** intelligent asset automation, including robotics
- **Sustainability:** for example, recycling of steam in production facilities
- **Delivering lean, digital products:** driving a focus on software quality

Manufacturers must run each of these initiatives, which new technologies of today and the future enable, on a digital, cloud-based platform that connects the entire manufacturing organization. The manufacturing IT environment is very heterogeneous, with aging equipment, older software, and disparate data models. The enabling system (e.g., Dynamics 365) must be open, usable, flexible, and secure so that innovation, production, and delivery continue unabated, regardless of the manufacturing environment (completely new, old, or a mix of the two).

Dynamics 365 Overview

Dynamics 365 is a cloud suite of connected ERP and CRM software applications that spans finance, sales and marketing, supply chain, production, customer service, project operations, human resources, and field service. The company refers to these applications as “intelligent,” connoting the AI and ML routines that are embedded within them to improve workflow, data management, and security. Microsoft Copilot and agents in Dynamics 365 (i.e., GenAI) can help improve decision support for software users.

Key capabilities and benefits of Dynamics 365 for each role in the manufacturing organization include:

- **Finance:** optimize financial and accounting operations and allocate budget most effectively
- **Sales and marketing:** garner real-time customer insights to personalize journeys, improve sales productivity, and win deals
- **Supply chain management:** accurately predict demand, improve production scheduling, and diversify supply networks
- **Customer service:** provide a 360-degree view of customers and enable easier self-service
- **Human resources:** plan and manage the hire-to-retire process to give the workforce an improved employee experience and optimize talent utilization
- **Project operations:** orchestrate internal and revenue-driving projects, from planning and budgeting to execution and billing
- **Field service:** improve service operations through unified scheduling visibility and availability and augmenting technicians' knowledge

Additionally, Microsoft Power Platform can complement any implementation of Dynamics 365 with AI-enabled, low-code software development tooling for rapid data analytics or integration with external data models.

The Business Value of Dynamics 365 for Manufacturers

Study Firmographics

IDC conducted research that explored the value and benefits for organizations using Dynamics 365 to improve operational efficiency and drive innovation in the manufacturing industry.

The project included seven interviews with organizations that use Dynamics 365 and have experience with and/or knowledge about the benefits and costs of using the platform. During the interviews, companies answered various quantitative and qualitative questions about the offering's impact on their manufacturing operations, core businesses, and costs.

Table 1 presents the study firmographics. The organizations that IDC interviewed had an average base of 12,971 employees and average annual revenues of $71.1 billion. On average, these companies had IT staffs of 270 professionals supporting 137 business applications. Regarding location, three companies were based in the United States, with the remainder in Germany (2), Sweden, and Switzerland. From a vertical market standpoint, all the companies in IDC's survey primarily engaged in the manufacturing sector. Additional metrics are presented.

TABLE 1

Firmographics of Interviewed Organizations

Firmographics	Average	Median	Minimum	Maximum
Number of employees	12,971	11,000	3,000	30,000
Number of IT staff	270	225	70	500
Business applications	137	125	23	250
Annual revenue	$7.1B	$1.3B	$300M	$35.7B
Countries	United States (3), Germany (2), Sweden, Switzerland			
Industries	Manufacturing (7)			

n = 7; Source: IDC Business Value In-Depth Interviews, December 2024

Choice and Use of Microsoft Dynamics 365

The manufacturing organizations that IDC interviewed described the criteria involved in selecting Dynamics 365 to improve operational efficiency, enhance DX, and drive innovation. Front-line managers and IT professionals with direct experience with Dynamics 365's overall value proposition offered detailed comments about their purchase decisions. Study participants noted that Dynamics 365 was highly cost-effective in providing the functionality, automatization, and programmability they sought to modernize their operations.

They also highlighted its robust functionality and overall flexibility, especially in terms of data analytics and ERP automation, and its visibility into the continuous operation across all aspects of the manufacturing spectrum of operations.

Study participants elaborated on these and other selection criteria:

Appealing cost for functionality provided:
"The cost of Dynamics 365 was appealing. The other solution that we were considering that specialized in manufacturing was twice as expensive for the functionality, automatization, and programmability that we desired."

Robust functionality:
"My company started with Dynamics 365 in 2019 with a project for a small company solution. As we figured it out for that project, we knew the functionality could do even more for the company. We have rolled it out to multiple businesses at this point."

Flexibility, analytics, and automation:
"My company chose Dynamics 365 for its flexibility, data analytics, and ERP automation."

Continuous operations:
"My company selected Dynamics 365 because we wanted the capability to run the operations, including manufacturing, all the way from financials to shipping."

Microsoft strategy continuation:
"We chose Dynamics 365 because we wanted to give continuity to our strategy as we had AX 2012. It was a natural move to the cloud."

Ability to drive innovation:
"My organization chose Dynamics 365 to replace our old legacy solution that hindered innovation."

Table 2 (next page) provides a quantitative view of Dynamics 365 usage across all companies at the time of the interviews. On average, there were 17 manufacturing locations engaged in providing 55,143 products and working with 2,564 suppliers. In addition, the platform supported 47% of all companies' total annual revenue, indicating broad usage (2,793 end users). Additional metrics are presented.

TABLE 2

Organizational Usage of Dynamics 365

Dynamics 365 Environment	Average	Median
Number of manufacturing locations	17	10
Number of warehouses	31	17
Number of branches/stores	44	24
Number of suppliers	2,564	1,900
Number of products	55,143	8,000
Percent of total organizational revenue	47%	38%
Number of integrated business applications	21	13
Number of internal users of Dynamics 365	2,793	1,500

n = 7; Source: IDC Business Value In-Depth Interviews, December 2024

Business Value and Quantified Benefits

Data that IDC gathered from study participants confirmed that the Dynamics 365 platform added value by enhancing team performance, minimizing downtime, and optimizing supply chains and product delivery operations. In addition, interviewed companies significantly decreased manufacturing costs according to metrics such as annual scrap savings while developing more accurate project cost estimates. Further, enabling more efficient inventory teams, marketing teams, and operations resulted in significant additional cost savings. Lastly, the platform enhanced associated financial operations by improving the performance of inventory finance and AP teams and reducing the time needed to close monthly accounting.

Study participants offered these comments on the most significant benefits of Dynamics 365:

Automation and data consolidation:

"There are many benefits of Dynamics 365, but the largest for my organization has been using task automation and process automation to improve productivity, streamline workflows, and reduce manual errors. Another large benefit is that the software has become a single source of truth for data. Having centralized data has enabled my organization to have more actionable insights through dashboards and reports. The real-time data visibility has made it easier to steer and improve our customer interaction."

Increased visibility and decreased labor:

"The largest benefits that we have achieved with Dynamics 365 are the reduction in labor, increased inventory visibility, and decreased time required for month-end-closes."

ERP unification:

"The most significant benefit of having Dynamics 365 is having a unified ERP solution across all our sites to be able to eliminate the need to work across multiple systems."

Improved planning and visibility:

"The largest areas of benefit for my organization from Dynamics 365 are improved planning capabilities and increased visibility. We are able to better plan our production and purchase ordering with the solution. Having end-to-end visibility for the entire production order and purchase order processes is a significant improvement."

Data accessibility:

"Dynamics 365 gives my organization easier access to data. That access makes staff more productive."

Solution integrations:

"The integration of Dynamics 365 to ISV solutions was a game changer for my organization. The ISV solution that we use manages material handling and material cutting, which is a significant portion of our business. Tight integration is extremely important."

Figure 1 (next page) presents IDC's calculations of cumulative customer benefits after the adoption of Dynamics 365. As shown, the average annual benefits were $20.6 million per organization ($7.4 million per 1,000 active users).

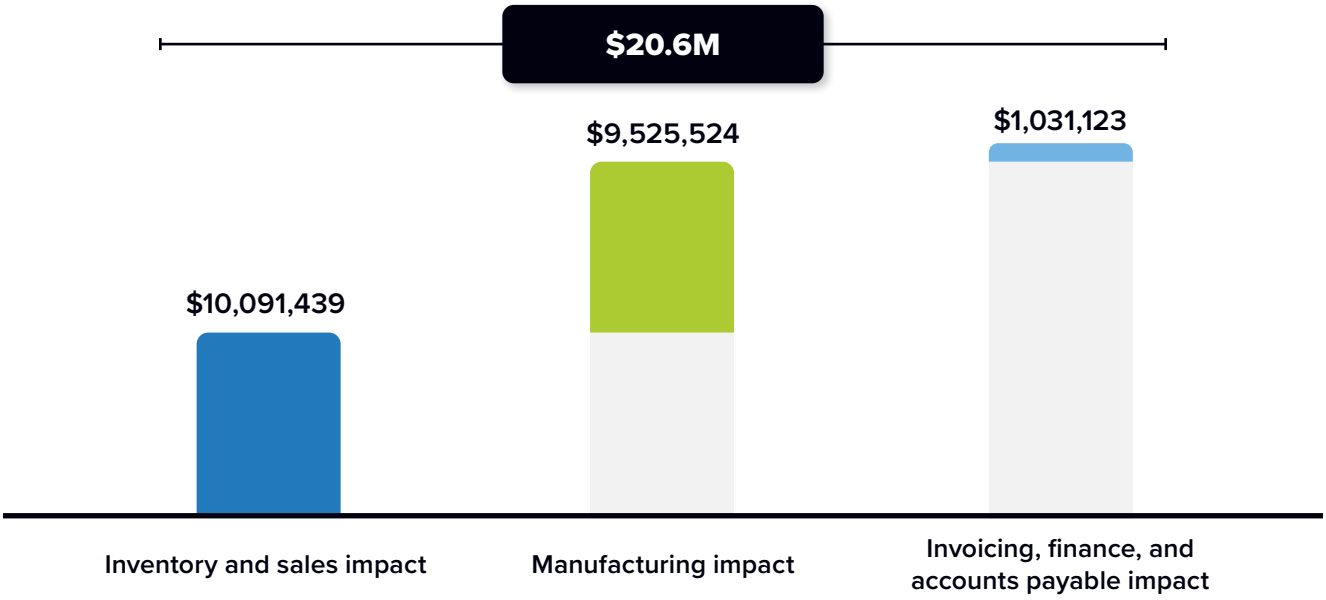
Figure 1 breaks down these benefits further in terms of staff efficiency gains in the following areas:

- **Inventory and sales impact:** Dynamics 365 reduced manual processes, increased data accessibility, and provided tight system integrations to Sales and Inventory teams. This ultimately helped improve their efficiency levels and decrease inventory costs.

- **Manufacturing impact:** Study participants indicated that floor manufacturing teams and supply chain managers were able to gain efficiency from Dynamics 365, improving visibility, reducing asset downtime, and providing workflow automation. Additionally, costs were improved through better scrap and project management.
- **Invoicing, finance, and accounts payable impact:** This team increased their efficiency levels by using Dynamics 365 to enhance data visibility and automate workflows.

FIGURE 1

Average Annual Benefits Per Organization



n = 7; Source: IDC Business Value In-Depth Interviews, December 2024

For an accessible version of the data in this figure, see Figure 1 Supplemental Data in Appendix 2.

Manufacturing Benefits from Dynamics 365

IDC used its Business Value methodology to evaluate a series of accrued benefits from the adoption of Dynamics 365 in manufacturing operations. The platform is designed to provide seamless connection throughout the full range of manufacturing operations, from supply chains to production lines. In part, it offers this functionality via real-time data flow and system interoperability that enhances collaboration and operational efficiencies. Dynamics 365 also offers AI-enhanced production scheduling and capacity and sequence planning.

Study participants confirmed the core benefits of Dynamics 365's offerings for their manufacturing operations. In their detailed comments to IDC, interviewed companies noted that Dynamics 365's solution increased process visibility, which helped lower amounts of existing shelf stock, leading to cost savings. Respondents also appreciated Dynamics 365's ability to help with materials management, capacity planning, and generating master production schedules.

Study participants called supply chain transparency a key benefit and elaborated on the following benefits:

Increased process visibility:

"Dynamics 365 has really improved visibility process-wise for manufacturing activities. Management has much better information now than they had in the past, especially in countries that are heavily using the platform. Eventually, we envision that this visibility will help lower our shelf stock, so there could be a cost-saving benefit."

Proper planning and resource allocation:

"My company was pretty outdated before deploying Dynamics 365. Before, we did not have the ability to properly manage materials, capacity plan, or create a master production schedule. Being able to plan and allocate our resources properly is a big plus. We have [fewer] material shortages due to inadequate planning and unreliable data. It has enabled us to give realistic timing to customers as a result."

Efficient resource allocation:

"Relative to equipment savings, a big benefit for my team is that we significantly reduced manufacturing resource allocation from 4 hours down to 10 minutes in Dynamics 365. We used to do that just once a day but now can do it multiple times a day."

Manufacturing workstation process tracking:

"Dynamics 365 gave my organization the ability and visibility to track manufacturing work-in-progress and materials [at] every step of the process. We gained visibility across every workstation."

Supply chain transparency:

"Dynamics 365 provides greater visibility and transparency into our supply chain, which then gives us better control of costs. We have definitely reduced the cost of goods as a result."

Increased traceability, planning, and accurate cycle counts:

"The supply chain and procurement teams in my organization have benefited from Dynamics 365 increasing traceability, aiding in supply and demand planning, and creating accurate cycle counts."

IDC applied its Business Value methodology to validate this anecdotal reporting by quantifying the benefits of adopting Dynamics 365, beginning with the performance of floor manufacturing teams. Interviewed organizations reported that Dynamics 365 provided floor manufacturing teams with increased project visibility, better resource scheduling, higher quality project planning, and improved automated workflows.

IDC calculated that these capabilities yielded **40% quicker order/product delivery time** and **27% more automation for various manufacturing processes.**

Table 3 further quantifies these benefits. After adopting Dynamics 365, interviewed companies saw a 15% productivity boost for their floor manufacturing teams. In real-world terms, this meant that an average of 404 team members could work with the speed and productivity equivalent to having 62 additional FTEs on staff. This improvement resulted in a substantial average annual productivity-based business value of $4,356,917 for each organization.

TABLE 3

Production Floor Manufacturing Team Productivity Gain

Productivity Gain	Before Dynamics 365	With Dynamics 365	Benefit	Percentage
Equivalent productivity level, FTEs	404.2	**466.4**	62.2	**15%**
Value of staff time per year	$28,291,667	**$32,648,583**	$4,356,917	15%

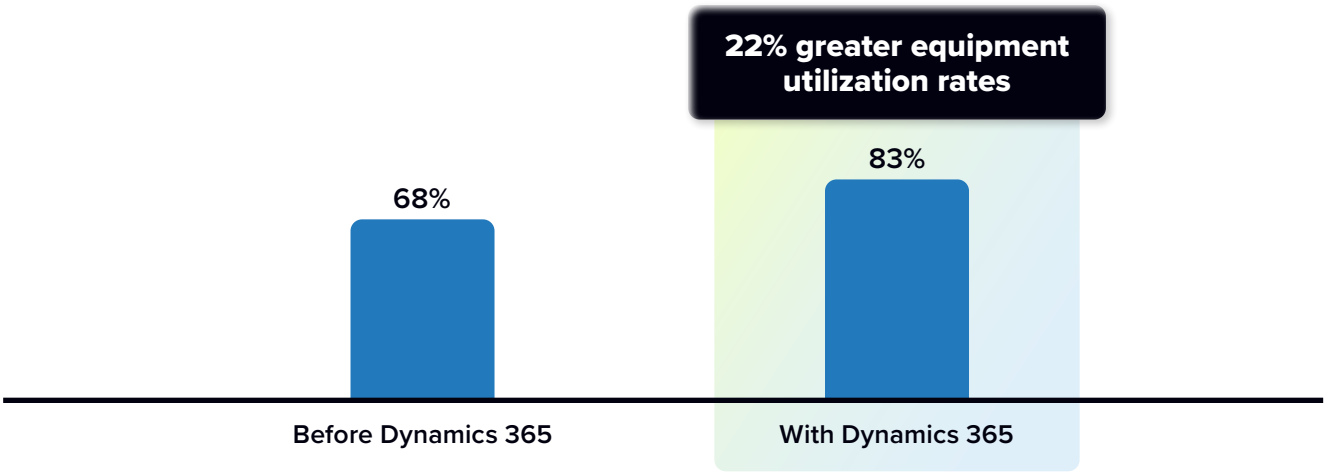
n = 7; Source: IDC Business Value In-Depth Interviews, December 2024

IDC then looked at the impacts of adopting Dynamics 365 on equipment utilization. Because of Dynamics 365's built-in intelligent resource planning functionality, equipment utilization rates significantly improved by 22%, as **Figure 2** (next page) shows.

FIGURE 2

Equipment Utilization Rates

(Percentage of respondents)



n = 7; Source: IDC Business Value In-Depth Interviews, December 2024

IDC then looked at how the adoption of Dynamics 365 impacted operational cost savings, particularly with respect to scrap costs. The adoption of the Dynamics 365 platform provided a 10% reduction in annual scrap costs by improving scrap utilization, enhancing quality management, creating reporting workflows, and providing access to high-quality data. As one study participant noted: *"The team can utilize scrap better with Dynamics 365 because they have visibility into what scrap exists and, therefore, can reduce it. Before, in some of the fields, it wasn't visible which scrap or remnant parts we had and could reuse. Not only did we gain the ability to keep better track of our remnants, but we can now utilize them better rather than buying new parts."*

As **Table 4** shows, IDC calculated that these savings cumulatively amounted to an average of $466,667 annually.

TABLE 4

Operational Cost Savings — Scrap Costs

Operational Cost Savings	Percentage Reduced	Annual Cost Savings
Scrap generated with Dynamics 365	**10%**	**$466,667**

n = 7; Source: IDC Business Value In-Depth Interviews, December 2024

Continuing with operational cost savings, interviewed organizations noted that Dynamics 365 improved the accuracy of their project costs by decreasing the number of information silos and providing better access to real-time project data. One study participant described the benefit this way: *"Project cost accuracy has improved enormously with Dynamics 365. This is simply because we have real-time visibility into the data required to plan costs and the ability to compare it to the past. Before, we needed multiple Excel sheets and a lot of pre-calculating. Now, however, we can plan costs in real time, so it's much better."*

Table 5 shows IDC's calculations for savings associated with project cost accuracy. After adoption, accuracy improved by 13%, resulting in an average annual operational savings of $2,822,000.

TABLE 5

Operational Cost Savings — Revenue Savings Associated with Project Costs Accuracy

Operational Cost Savings	Percentage Improved	Annual Cost Savings
Project cost accuracy with Dynamics 365	13%	**$2,822,000**

n = 7; Source: IDC Business Value In-Depth Interviews, December 2024

Study participants reported post-adoption productivity improvements for those charged with managing supply chain and procurement. In this important area, Dynamics 365 decreased data silos while improving cycle counting, supply management, and traceability.

Table 6 illustrates that Dynamics 365 enabled this team to work with the equivalent productivity level of having an additional 142 FTEs on staff, a 20% productivity gain. This improvement resulted in a substantial average annual productivity-based business value of $9,940,000.

TABLE 6

Supply Chain and Procurement Team Productivity Gain

Productivity Gain	Before Dynamics 365	With Dynamics 365	Benefit	Percentage
Equivalent productivity level, FTEs	710	**852**	142	**20%**
Value of staff time per year	$49,700,000	**$59,640,000**	$9,940,000	20%

n = 7; Source: IDC Business Value In-Depth Interviews, December 2024

IDC then looked at the end-user impacts of asset-related unplanned downtime. Interviewed organizations noted that Dynamics 365 created an asset environment that was easier to maintain. As a result, organizations significantly reduced the frequency of unplanned downtime outages for assets by 85%. With a significant number of end users depending on Dynamics to manage assets, the reduction of outages saved productivity equal to 23 FTE end users annually. IDC values this productivity savings per year at $1.6 million. **Table 7** presents this data along with additional metrics.

TABLE 7

Asset Unplanned Downtime — End-User Impact

End-User Impact	Before Dynamics 365	With Dynamics 365	Benefit	Percentage
Number of outages per year	6.8	**1.0**	5.8	**85%**
MTTR, hours	7.3	**7.3**	N/A	0%

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End-User Impact	Before Dynamics 365	With Dynamics 365	Benefit	Percentage
Users impacted by downtime	1,580	**1,580**	N/A	N/A
Percentage of productivity loss factor	65%	**65%**	N/A	N/A
Productivity loss per organization per year in FTEs	26.9	**4.0**	23.0	85%
Value of lost productive time per year	$1,885,201	**$277,235**	$1,607,965	85%

n = 7; Source: IDC Business Value In-Depth Interviews, December 2024

Unplanned downtime occurring on manufacturing lines can have significant financial repercussions. **Table 8** shows how Dynamics 365 reduced unplanned downtime's impact on revenue by reducing outages by 85% (see **Table 7**, previous page). IDC calculated that the total revenue-loss avoidance per organization was $6,965,104. Factoring in a 15% operating margin, this amounted to $1,044,766 in the ROI model. IDC presented additional granular metrics.

TABLE 8

Asset Unplanned Downtime — Revenue Impact

Revenue Impact	Before Dynamics 365	With Dynamics 365	Benefit	Percentage
Number of outages per year	6.8	**1.0**	5.8	85%
Percentage of outages revenue impacting	68%	**68%**	N/A	N/A

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Revenue Impact	Before Dynamics 365	With Dynamics 365	Benefit	Percentage
Revenue loss per outage	$1,766,000	**$1,766,000**	$0	0%
Total revenue loss value per organization	$8,165,984	**$1,200,880**	$6,965,104	85%
Total revenue loss value, IDC model	$1,224,898	**$180,132**	$1,044,766	85%

n = 7; Source: IDC Business Value In-Depth Interviews, December 2024

Inventory and Sales Benefits from Adopting Dynamics 365

IDC then shifted the analysis to inventory and sales benefits. In their detailed conversations with IDC, study participants discussed how their organizations were able to use Dynamics 365 to improve inventory automation and visibility. Inventory teams were able to automate manual processes and gain easier access to the data that they needed to do their jobs effectively. They commented that they could reduce transactional work for sales and purchasing departments to enable more involvement with their suppliers and customers.

Study participants discussed these and other key benefits:

Inventory automation and visibility:

"The inventory management team at my organization works more effectively with Dynamics 365. They benefit from the solution providing visibility into cycle counts and inventory usage. They have also used automation to help speed up processes."

Increased data accessibility:

"Dynamics 365 has helped the inventory team automate manual processes. It also has provided easier accessibility to the data that they need to do their jobs effectively."

Reduced inventory costs:

"As a result of better inventory management, Dynamics 365 has enabled my organization to reduce the cash stock in our inventory. As a result, networking capital has improved by 2%–4%, depending on the unit."

Less transactional work for sales and purchasing:
"Dynamics 365 helps to automate a lot of processes to reduce transactional work for the business, especially for the sales and purchasing departments. We have really shifted the focus of these people to do more business with their suppliers and customers rather than spending time in transactional business."

Tight integration into sales and marketing systems:
"Dynamics 365 has helped our sales and marketing teams work with more efficiency because it is tightly integrated with their systems."

Table 9 presents IDC's calculations of how Dynamics 365 impacted the productivity of the inventory management teams at interviewed organizations. Dynamics 365 improved the productivity of inventory management teams by automating tedious manual processes, increasing data accessibility, and providing accurate cycle counting and inventory usage. After adoption, interviewed companies saw a 20% productivity boost, resulting in an annual business value of $8,596,000 for each organization.

TABLE 9

Inventory Management Team Productivity Gain

Productivity Gain	Before Dynamics 365	With Dynamics 365	Benefit	Percentage
Equivalent productivity level, FTEs	614.0	**736.8**	122.8	**20%**
Value of staff time per year	$42,980,000	**$51,576,000**	$8,596,000	20%

n = 7; Source: IDC Business Value In-Depth Interviews, December 2024

As a result of better inventory management and improved inventory turns, interviewed organizations were able to significantly reduce annual inventory costs. As one participant noted: *"Inventory costs have gone down 15% with Dynamics 365. It is especially impactful with expensive inventory like titanium, where we have noticed a big difference in accuracy".* **Table 10** (next page) shows that Dynamics 365 enabled annual inventory-related savings of $3,541,667.

TABLE 10

Operational Cost Savings — Inventory-Related Savings

Operational Cost Savings	Annual Cost Savings
Inventory-related savings with Dynamics 365	**$3,541,667**

n = 7; Source: IDC Business Value In-Depth Interviews, December 2024

Sales and marketing teams enjoyed similar productivity benefits. Interviewed organizations reported that sales and marketing teams found that Dynamics 365 provided tight system integrations and process automation. This ultimately meant less transactional work and helped the team have a productivity level equivalent to having 48.1 additional team members, a 10% boost in productivity. This productivity improvement was worth $3,364,667 (**Table 11**).

TABLE 11

Sales and Marketing Team Productivity Gain

Productivity Gain	Before Dynamics 365	With Dynamics 365	Benefit	Percentage
Equivalent productivity level, FTEs	343.3	**391.4**	48.1	**14%**
Value of staff time per year	$24,033,333	**$27,398,000**	$3,364,667	14%

n = 7; Source: IDC Business Value In-Depth Interviews, December 2024

Invoicing, Finance, and Accounts Payable Benefits from Dynamics 365

Interviewed companies also reported significant improvements in invoicing, finances, and accounts payable. Interviewed companies appreciated how Dynamics 365 introduced a high level of global visibility into their processes while providing a central location to manage common processes, account charts, and packages. Dynamics 365 improved collaboration and sharing between various departments and teams and enhanced automation for invoicing, finance, and accounts payable activities.

Study participants made these detailed comments concerning these and other benefits:

Increase global visibility:

"The global visibility provided by Dynamics 365 has had the highest impact on our finance team. The visibility alone has increased their productivity by 20%–25%."

Centralized data and processes:

"The finance and invoice team has benefited from having Dynamics 365 providing a central location to manage common processes, account charts, and packages."

Increased ability to share information:

"Those responsible for finances in my organization appreciate that Dynamics 365 provides a common place for them to share information and tables."

Automation efficiencies:

"Dynamics 365 has highly automated invoicing, finance, and accounts payable activities in my organization. It has improved their effectiveness because there was no automation prior to deployment; everything was done manually."

Finally, IDC examined Dynamics 365's impacts on invoice, finance, and AP and general ledger accounting teams. Interviewed organizations noted that their finance teams greatly benefited from improved data visibility and task automation. IDC found that these enhancements helped the team reduce the time required to **close end-of-the-month books by 29%.**

Table 12 quantifies these benefits in terms of productivity improvements. After adoption, the interviewed companies saw an 18% improvement in team productivity, leading to an annual productivity-based business value of $1,903,611.

TABLE 12

Invoice, Finance, and AP Team Productivity Impact

Productivity Impact	Before Dynamics 365	With Dynamics 365	Benefit	Percentage
Equivalent productivity level, FTEs	148.3	**175.5**	27.2	**18%**
Value of staff time per year	$10,383,333	**$12,286,944**	$1,903,611	18%

n = 7; Source: IDC Business Value In-Depth Interviews, December 2024

ROI Summary

To sum up the financial and business-related benefits for study participants using Dynamics 365, IDC calculated an average three-year ROI. As shown in **Table 13**, IDC projects that these companies will achieve three-year discounted benefits worth an average of $45,550,500 per organization through better manufacturing operations, staff efficiencies, and financial tasks. These benefits compare with the total three-year discounted costs of $11,359,400 per organization. These levels of benefits and investment costs will result in an average three-year ROI of 301% with a payback period of 19 months.

TABLE 13

Three-Year ROI Analysis

Analysis	Per Organization	Per 1,000 Active Users
Discounted benefits	$45,550,500	$16,311,728
Discounted investment	$11,359,400	$4,067,825
Net present value (NPV)	$34,191,100	$12,243,903
ROI	**301%**	**301%**
Payback (months)	19	19
Discount factor	12%	12%

n = 7; Source: IDC Business Value In-Depth Interviews, December 2024

Challenges/Opportunities

Challenges abound for manufacturers in this data-rich, digital world that we live in. IDC's 2024 DataSphere research revealed that the manufacturing industry as a whole (all discrete and process sub-industries) will produce 90 EB of data (up from 2 EB in 2022) in 2030. This is why manufacturing industries are so focused on AI, GenAI, digital twins, and ecosystems. AI will help make sense of this data and turn it into knowledge that can improve productivity and the ability to innovate. Digital twins are the container (or the vehicle) for sharing data, knowledge, and models that enhance communication, collaboration, and operation of a business.

Ecosystems provide an environment to extend digital tools from the manufacturing enterprise and facilitate the sharing of this knowledge with partners for better, faster innovation and enhanced ability to respond flexibly to opportunity or disruption. Building economies of intelligence to collate, analyze, and consume this information will be a critical first step for manufacturers moving forward, and cloud-based ERP platforms, such as Dynamics 365, can play an enabling and supporting role.

Building off this data challenge and opportunity is AI. The data foundation and cloud platform must be in place first for organizations to maximize their experimental approach with GenAI and their deployment of AI and ML to improve workflow, visibility, and cybersecurity. The primary use cases for GenAI and agentic AI that we see manufacturers focusing on today are in marketing and sales, product development, supply chain, and service. Employees in each of these roles must feel that their AI co-pilots augment their decision-making, automate mundane tasks, and provide more time for utilizing value-adding skills such as research, innovation, and customer engagement.

We would be remiss not to mention the importance of quality in the manufacturing industry. For true enterprise-quality management, unifying information across the internal and external teams of ecosystem partners is the first step, followed by using AI-enabled applications to proactively see and eventually predict quality issues. One of the biggest challenges with quality information is that it is multi-faceted, emanating from across the organization (e.g., from products, assets, processes, supply chains, and customer experiences). Software providers, no matter what part of the manufacturing process chain they are serving, must have the ability to incorporate quality information into relevant domain areas, whether this is customer experience information for marketing and sales, product quality for the product and software development team, OEE metrics for manufacturing engineers and factory managers, or last-mile execution information for supply chain executives. Again, an underlying cloud-based platform for service-oriented consumption of data and applications enables this integrated, cross-enterprise, and ecosystem approach that is fundamental to the success of modern manufacturers.

Conclusion

Manufacturers today face numerous challenges, including the need to connect multiple data models across their organization and ecosystem to ensure consistent synchronization of go-to-market, R&D, production, supply chain, and service initiatives. This is crucial for maintaining high levels of performance and achieving a true life-cycle approach to innovating, producing, and delivering products to customers.

IDC's business value research proves the importance of having a cloud ERP and CRM system for manufacturers that have the challenge of dealing with vast, complex sets of data and processes and disparate teams that span the enterprise and ecosystem. Manufacturers should consider Dynamics 365 as a viable alternative to unify their global teams, reduce the risk associated with these challenges, engage with customers, and accelerate their businesses forward. According to IDC's research, organizations using Dynamics 365 can achieve an average annual benefit of $7.4 million per 1,000 active users and a three-year ROI of 301%. These metrics highlight the significant return on investment and efficiency gains that manufacturers can realize by adopting Dynamics 365.

While unifying data and connecting processes is the first step to achieving digital transformation for manufacturers, embedded AI within this platform will enable economies of intelligence to emerge across finance, sales and marketing, supply chain, production, customer service, project operations, human resources, and field service. These economies of intelligence can serve a single facility or multiple global locations — whatever the manufacturer requires. The move to digital and the cloud has been slow in manufacturing, emerging over the past 2–3 decades. However, the transformation is accelerating rapidly now. Those advanced organizations that have made the leap to a unified cloud-based platform that supports their entire business, whether discrete or process manufacturing, will enjoy a competitive advantage for years to come.

Appendix 1: Methodology

Table 14 presents a summary of IDC's Business Value calculations as fully described in the previous sections, with a total average annual benefits of $20.6 million per organization.

TABLE 14

Specific Calculations: Benefits from Use of Microsoft Dynamics 365

Category of Value	Average Quantitative Benefit	15% Margin Applied	Calculated Average Annual Value*
Manufacturing team productivity gain	15% higher productivity worth 62.2 FTEs, $70,000 salary	No	$2,359,997
Supply chain and procurement team productivity gain	20% higher productivity worth 142.0 FTEs, $70,000 salary	No	$5,384,167
Operational cost savings — scrap costs	$466,667 in annual operational cost savings	No	$252,778
Operational cost savings — revenue associated with project costs	$2,822,000 in annual operational cost savings	No	$1,528,583
Asset unplanned downtime, end-user benefit	85% unplanned downtime productivity loss avoidance worth 23.0 FTEs, $70,000 salary	No	$870,981
Asset unplanned downtime, revenue benefit	$1,044,766 in revenue loss avoidance from unplanned downtime	Yes	$565,915
Inventory management team productivity gain	20% higher productivity worth 122.8 FTEs, $70,000 salary	No	$4,656,167
Operational cost savings — inventory costs	$3,541,667 in annual operational cost savings	No	$1,918,403
Sales and marketing team productivity gain	14% higher productivity worth 48.1 FTEs, $70,000 salary	No	$1,822,528
Invoice, finance, AP team productivity impact	18% higher productivity worth 27.2 FTEs, $70,000 salary	No	$1,031,123
Total average annual benefits	**$20.6M per organization per year**		

n = 7; Source: IDC Business Value In-Depth Interviews, December 2024

IDC used its standard ROI methodology for this project. This methodology is based on gathering data from current users of Dynamics 365 as the foundation for the model.

Based on interviews with organizations using Dynamics 365, IDC performed a three-step process to calculate the ROI and payback period:

1. IDC gathered quantitative benefit information during the interviews using a before-and-after assessment of the impact of Dynamics 365. In this study, the benefits included IT cost reductions and avoidances, staff time savings and productivity benefits, and revenue gains.
2. IDC created a complete investment (three-year total cost analysis) profile based on the interviews. Investments go beyond the initial and annual costs of using Dynamics 365 and can include additional costs related to migrations, planning, consulting, and staff or user training.
3. IDC calculated the ROI and payback period and conducted a depreciated cash flow analysis of the benefits and investments related to the organizations' use of Dynamics 365 over a three-year period. ROI is the ratio of the NPV and the discounted investment. The payback period is the point at which cumulative benefits equal the initial investment.

IDC based the payback period and ROI calculations on a number of assumptions, which are summarized as follows:

- IDC multiplied time values by burdened salary (salary + 28% for benefits and overhead) to quantify efficiency and productivity savings. For the purposes of this analysis, IDC assumes 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).
- IDC calculated the net present value of the three-year savings by subtracting the amount that the organization would have 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 Dynamics 365 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.

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

Appendix 2: 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 Organization

Annual Benefits	Per Organization
Inventory and sales impact	$10,091,439
Manufacturing impact	$9,525,524
Invoicing, finance, and accounts payable impact	$1,031,123
Total	**$20.6M**

n = 7; Source: IDC Business Value In-Depth Interviews, December 2024

Return to original figure

About the IDC Analysts

Jeffrey Hojlo
Research Vice President, Future of Industry Ecosystems, Innovation Strategies, and Energy Insights IDC

As Research Vice President, Future of Industry Ecosystems, Innovation Strategies, and Energy Insights at IDC, Jeff Hojlo leads one of IDC's Future Enterprise practices at IDC — the Future of Industry Ecosystems. This practice focuses on three areas that help create and optimize trusted industry ecosystems and next-generation value chains in discrete and process manufacturing, construction, healthcare, retail, and other industries: shared data and insight, shared applications, and shared operations and expertise. Mr. Hojlo manages a group focused on the research and analysis of the design, simulation, innovation, product life cycle management, and service life cycle management (SLM) market including emerging strategies across discrete and process manufacturing industries such as product innovation platforms and the closed-loop digital thread of product design, development, digital manufacturing, supply chain, and SLM.

More about Jeffrey Hojlo

Megan Szurley
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Megan Szurley is manager for the Business Value Strategy Practice, responsible for creating custom business value research that determines the ROI and cost savings for enterprise technology products. Megan's research focuses on the financial and operational impact of these products for organizations once deployed and in production. Prior to joining the Business Value Strategy Practice, Megan was a consulting manager within IDC's Custom Solutions division, delivering consultative support across every stage of the business life cycle: business planning and budgeting, sales and marketing, and performance measurement. In her position, Megan partners with IDC analyst teams to support deliverables that focus on thought leadership, business value, custom analytics, buyer behavior, and content marketing. These customized deliverables are often derived from primary research and yield content marketing, market models, and customer insights.

More about Megan Szurley

Message from the Sponsor

The future of business will be built on autonomous ERP, transforming how work gets done and how operations are run.

Over the years we have seen continuous evolution of ERP and today, business leaders are navigating a paradigm shift more profound than the moving ERP to the cloud. The introduction of generative AI in 2023 and autonomous agents in 2024 is a step change in how we perceive transformation of core process. ERP systems are moving beyond simply processing information; they can autonomously orchestrate and execute complex, multistep workflows, fundamentally changing the nature of work from thought to action.

With AI-powered business processes in Dynamics 365, leaders can anticipate disruptions and change, and mitigate them autonomously. AI agents can seamlessly coordinate complex workflows, turning insights into action. Built on the secure and globally trusted Microsoft Cloud infrastructure, allows organizations to grow faster, deliver meaningful impact, and drive business performance in today's dynamic landscape. The result is an enterprise ready for the future.

Contact us today to learn more about Dynamics 365 autonomous ERP solutions.

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