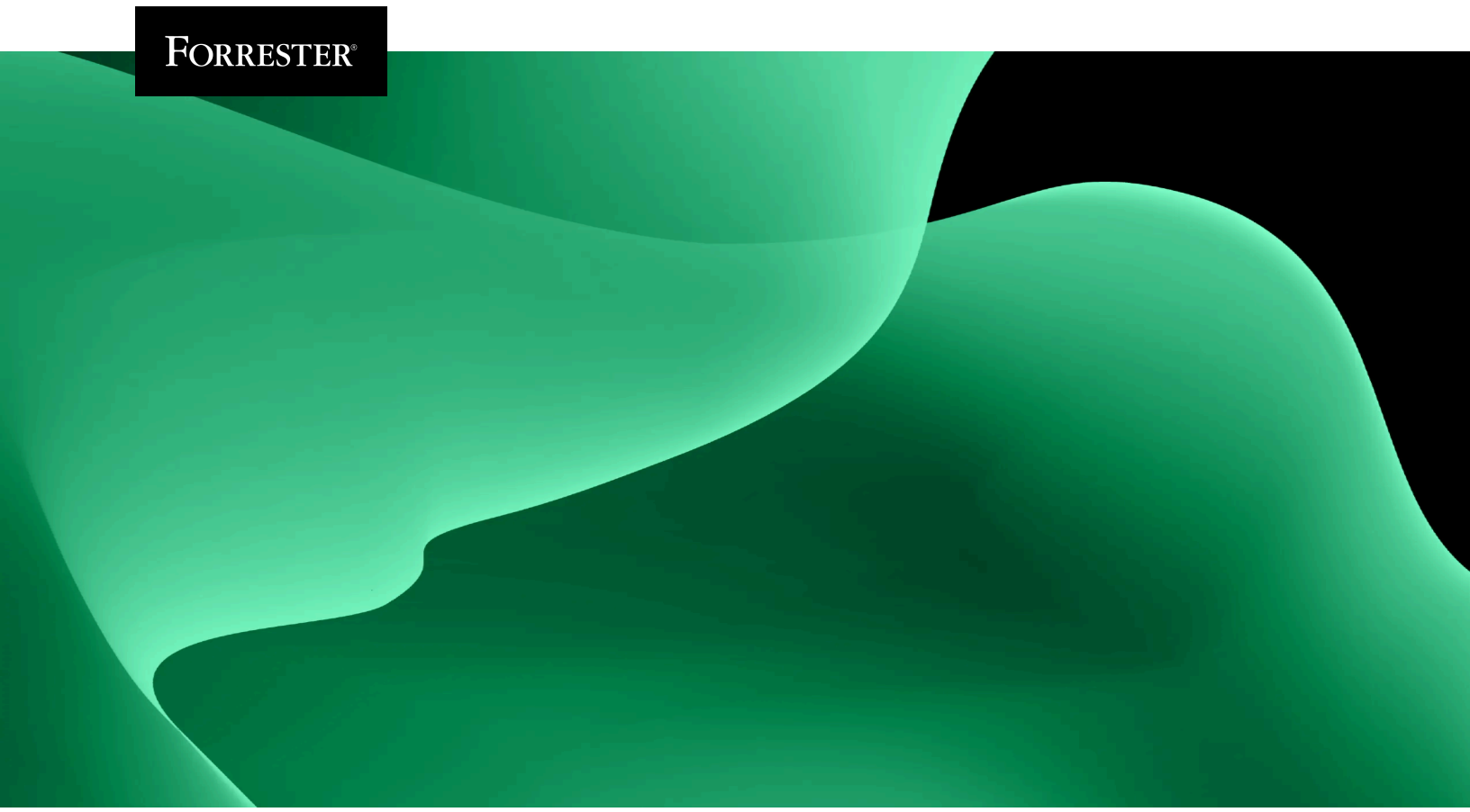
Total Economic Impact

New Tech: The Projected Total Economic Impact™ Of Microsoft Artificial Intelligence Solutions For Industrial Transformation

Measurable Gains And Estimated Value Of Industrial Transformation With Microsoft AI

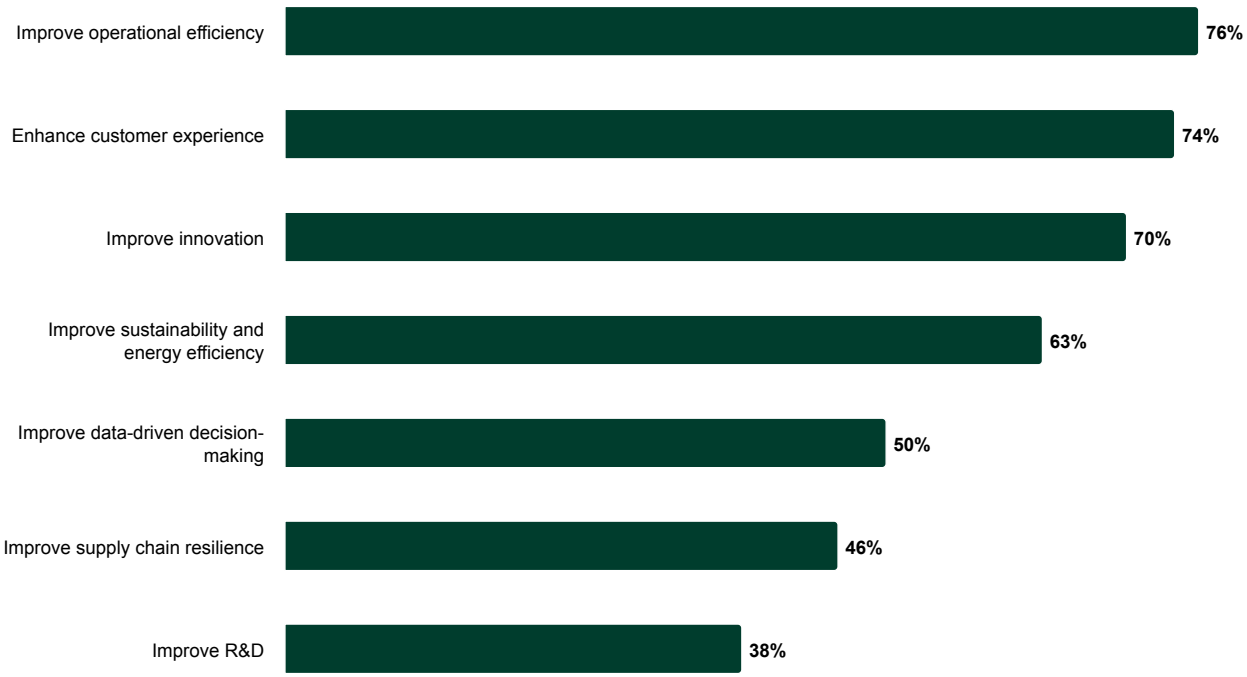
A FORRESTER NEW TECHNOLOGY PROJECTED TOTAL ECONOMIC IMPACT STUDY COMMISSIONED BY MICROSOFT, JULY 2025



Executive Summary

Manufacturers today face mounting pressure to increase efficiency, reduce waste, and scale operations across increasingly complex global networks — all while navigating labor shortages and rising costs. These organizations need scalable, in-the-moment intelligence that drives measurable operational impact to combat these pressures and achieve many of their industrial transformation goals, such as improving operational efficiency and enhancing customer experience (CX). When these organizations adopt cloud-based AI and automation platforms, they can target impactful improvements to varied, specific processes while the underlying technologies are tied to scalable infrastructure, ensuring repeatability across the business.

"What are the main goals your organization has set/expects to set for its industrial transformation?"



Base: 125 Microsoft Azure customers who are going through/have gone through industrial transformation and have interest in AI.
Source: Forrester's Q2 2025 Microsoft AI For Industrial Transformation Survey

As the nexus between organizational data, live operational data, predictive data, and tangible operational benefits, AI tools delivered on cloud-based platforms, of which Microsoft's AI solutions form only part, flex across categories. For example, Microsoft's AI solutions form only part, flex across categories. For example, manufacturers can address operational inefficiencies by enabling live operational monitoring, predictive maintenance, and intelligent automation across production and supply-chain systems. Additionally, inventory-heavy organizations like retailers or small-parts suppliers replace or enhance legacy processes, automating labor-intensive operational workflows and improving decision speed and accuracy. Furthermore, logistics companies can streamline complex workflows and enhance data visibility, meeting their delivery promises. Broadly, industrial organizations achieve data-driven, end-to-end transformational impact.

Microsoft commissioned Forrester Consulting to conduct a New Tech: Projected Total Economic Impact™ (NTTEI) study and examine the potential return on investment (ROI) enterprises may realize by deploying Microsoft's AI solutions in an industrial transformation context.[1] The purpose of this study is to provide readers with a framework to evaluate the potential financial impact of Microsoft's AI solutions on their organizations.

167%–457%

Return on investment (ROI)

$9.3 million–$25.4 million

Net present value (NPV)

To better understand the benefits, costs, and risks associated with this investment, Forrester interviewed six decision-makers with experience using Microsoft's artificial intelligence solutions in an industrial transformation context and surveyed 125 Microsoft Azure customers who are going through or have gone through industrial transformations and have interest in AI. For the purposes of this study, Forrester aggregated the experiences of the interviewees and survey respondents and combined the results into a single composite organization, which is a manufacturing organization with 12,000 employees and annual revenue of $4 billion.

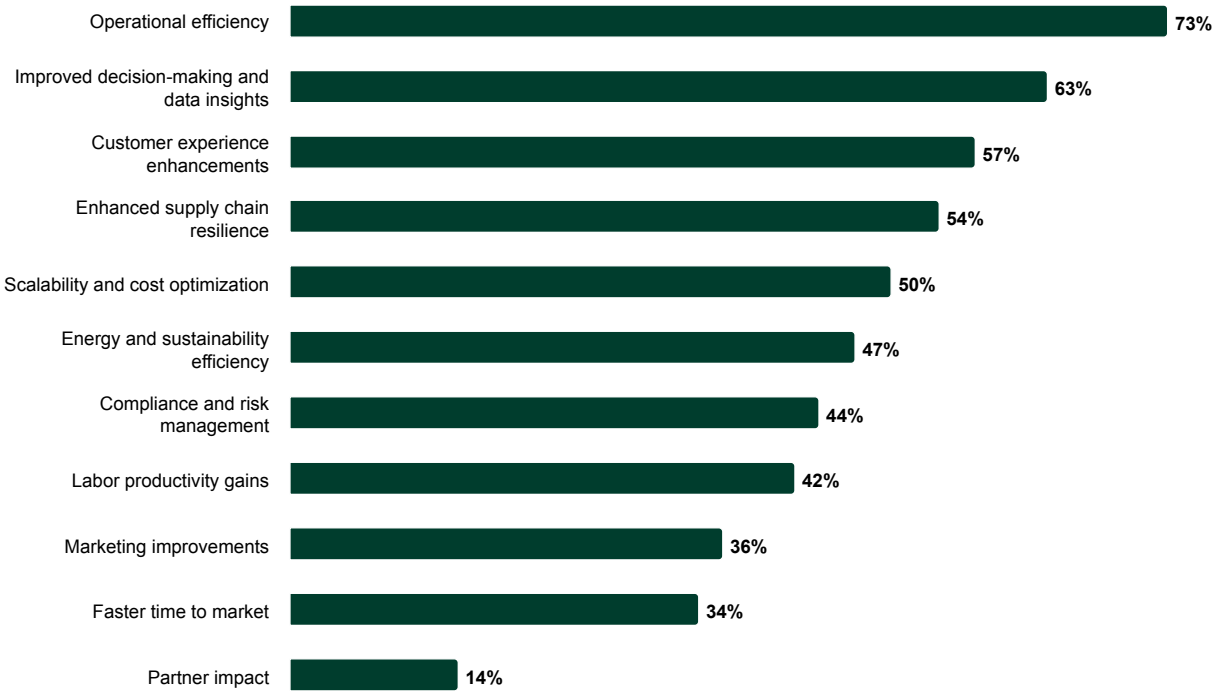
Before beginning their industrial transformation journeys, the interviewees said that their organizations relied heavily on manual processes, fragmented systems, and intuitive decision-making. This resulted in inconsistent operational execution across sites, slow handling of unplanned disruptions, and limited visibility into live operations. These limitations led to rising operational costs, difficulty scaling solutions across facilities, and frequent supply chain and equipment-related delays.

In response, the interviewees' organizations deployed AI-driven tools on cloud-based automation platforms. They applied these tools to use cases across production, quality, equipment, and supply chain, with a focus on improving operational efficiencies and leveraging predictive insights and actionable data availability.

As a result, these organizations enacted operational changes including automating low-value tasks, streamlining onboarding and training, implementing AI-assisted product quality control, predicting equipment maintenance cycles backed by live operational monitoring, and improving automation and data availability regarding their supply chain.

Because of these operational changes, the interviewees' organizations 1) enhanced operational workforce efficiency, 2) reduced product defects, increased first pass yield, and reduced rework and scrap costs, 3) improved their overall equipment effectiveness (OEE) by reducing equipment failures and downtime, improving equipment availability and performance, and 4) increased supply chain agility and resilience, all while decreasing their technology infrastructure costs.

"Which areas of outcomes have you seen/do you expect to see most from Microsoft solutions during your industrial transformation?"



Base: 125 Microsoft Azure customers who are going through/have gone through industrial transformation and have interest in AI.
Source: Forrester's Q2 2025 Microsoft AI For Industrial Transformation Survey

Key Findings

Quantified benefits. Three-year, risk-adjusted present value (PV) quantified benefits for the composite organization include:

- **Low-value task automation between 30% (low) and 66% (high) and onboarding efficiencies between 40% (low) and 75% (high).** By automating repetitive, low-value tasks such as manual inventory checks, exception flagging, and routine data entry, the composite frees operational employees to focus on higher-impact work. Additionally, it manages to accelerate training and reduce errors among new hires via AI-powered onboarding tools, such as augmented instructions and contextual guidance. Together, these improvements enhance workforce productivity, reduce training overhead, and shorten time to productivity for new employees. These benefits are worth an NPV of between $9.6 million (low) and $21.1 million (high) to the composite organization.
- **Reduction in number of supply chain delays between 30% (low) and 50% (high), reduction in length of remaining delays between 25% (low) and 45% (high), and reduction in number of stockouts between 30% (low) and 50% (high).** With improved visibility and automated exception handling across the supply chain, the composite organization proactively identifies and resolves disruptions before they escalate. These capabilities reduce supply chain delays caused by manual errors, slow decision-making, and lack of data transparency. When delays do occur, the composite's accelerated response times and corrective actions minimize the duration of the disruptions and improve overall delivery reliability. Furthermore, adding smart cameras to the composite's inventory processes ensures it stocks the right inventory in the right amounts for customer orders. This reduces stockout events, increasing inventory turnover and recouping profits from sales. These benefits are worth an NPV of between $2.4 million (low) and $4.8 million (high) to the composite.
- **Reduction in defects and infrastructure costs between 30% (low) and 50% (high).** The composite can reduce manufacturing defects early in the production process by integrating AI-powered quality control and live operational monitoring. This leads to fewer errors, less rework, and lower scrap rates — resulting in significant material and labor cost savings and improvement in first pass yield. Additionally, by consolidating legacy systems and migrating to cloud-

based infrastructure, the composite organization reduces on-premises hardware and maintenance costs, enabling more scalable and cost-efficient operations. These benefits are worth an NPV of between $1.8 million (low) and $3.2 million (high) to the composite.

- **Equipment maintenance savings between 30% (low) and 40% (high) and reduced frequency and length of failures between 30% (low) and 50% (high).** The composite organization incorporates predictive maintenance and live equipment monitoring into its shop floor operations, reducing unnecessary servicing and extending the lifespan of critical assets. These capabilities also reduce the frequency of unplanned equipment failures and shorten the time required to diagnose and resolve incidents when they occur. Together, these improvements lower maintenance costs, minimize production disruptions, and improve OEE. These benefits are worth an NPV of between $1 million (low) and $1.8 million (high) to the composite organization.

KPIs Mapped To Quantified Benefits	
KPIs	**Analysis Of Benefits Sections**
OEE, quality portion	C. Process and infrastructure overhead reductions
OEE, availability and performance portion	D. Equipment utilization and lifecycle value
First pass yield	C. Process and infrastructure overhead reductions
Time to resolution	D. Equipment utilization and lifecycle value
Inventory turnover	B. Supply chain agility and resilience
Customer order cycle time	B. Supply chain agility and resilience

Unquantified benefits. Benefits that provide value for the composite organization but are not quantified for this study include:

- **Accelerated revenue realization and time to value.** The composite reduces delays in production, logistics, and decision-making, which leads to faster order fulfillment and production output monetization. As the composite improves its forecasting accuracy, streamlines onboarding, and reduces operational bottlenecks, it begins to bring products to market more quickly and capture revenue opportunities sooner. These efficiencies contribute to stronger cash flow and improved responsiveness to customer demand.
- **Better customer experience.** As the composite experiences faster, more accurate order fulfillment and gains timely visibility into production and delivery status, it sees customer satisfaction improve. Automated quality checks and predictive insights reduce errors and delays, ensuring that customers receive the right products on time. These capabilities help build trust, improve service reliability, and strengthen long-term customer relationships.
- **Technology scalability.** The composite scales its new digital capabilities across multiple sites and regions without needing costly, custom deployments. By leveraging these tools, the composite replicates the deployment of successful solutions enterprisewide with greater speed and consistency. This scalability reduces implementation time, lowers IT overhead, and ensures more uniform performance across operations.
- **Energy efficiency.** Through live monitoring and equipment performance and production process optimization, the composite organization reduces unnecessary energy consumption across its operations. It can identify inefficiencies in real time and enable more precise control over energy-intensive systems. As a result, it improves sustainability outcomes while lowering utility costs and reducing its environmental footprint.

Costs. Three-year, risk-adjusted PV costs for the composite organization include:

- **Total costs.** The composite makes an initial investment in Microsoft AI solutions, which includes infrastructure upgrades, integration, and training. Ongoing costs — such as licenses, cloud consumption, and partner support — are predictable and scalable. Although the time to plan and implement some applications of Microsoft's solutions is lengthy, it is appropriately within the scale of the composite's expected financial benefit. The total three-year risk-adjusted present value cost of the investment for the composite is $5.6 million.

Forrester modeled a range of projected low-, medium-, and high-impact outcomes based on evaluated risk. This financial analysis projects that the composite organization accrues the following three-year NPV for each scenario by enabling Microsoft AI solutions in an industrial transformation context:

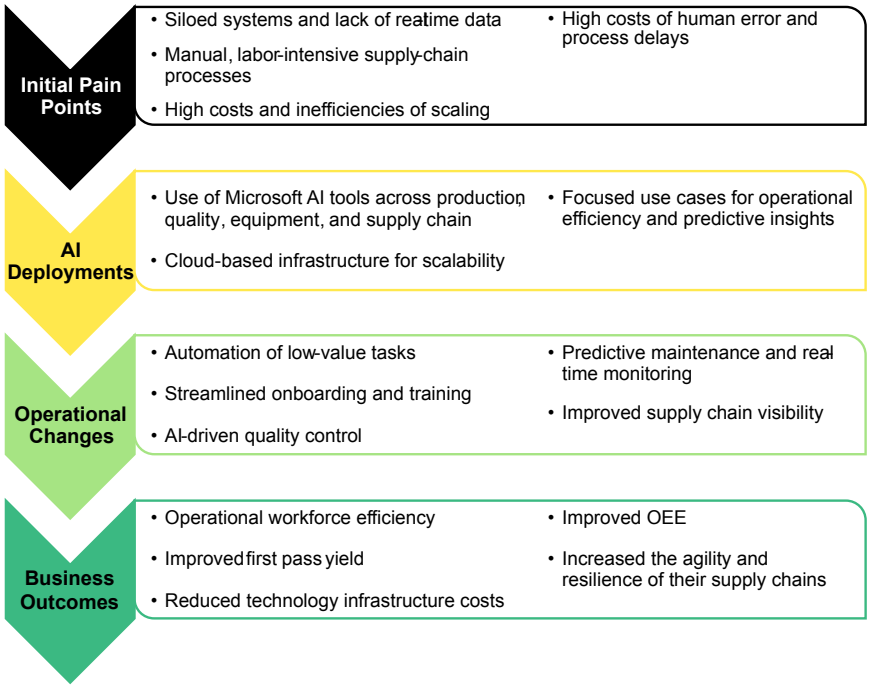
- Projected high impact of a $25.4 million NPV and projected ROI of 457%.
- Projected medium impact of a $16.3 million NPV and projected ROI of 294%.
- Projected low impact of a $9.3 million NPV and projected ROI of 167%.

Annual savings from automating low-value tasks for operational employees

Up to $10.5 million

> *"We're looking at transformation from end to end. Changing one function will have an impact on all other functions. This is going to be a game changer. If we do this right, it's going to be super impactful."*
>
> **VP of data and insights, beverage distributor**

Customer Value Realization



A graphic that displays four chevrons pointing downward, one to another. In each chevron is the title of a step on the path to value realization. Beside each chevron is a rectangle, with diagonal corners rounded, inside of which are customer details for each step in the path. For the Initial Pain Points step, customers experienced: manual, labor-intensive processes; siloed systems and lack of real-time data; high operational costs and inefficiencies; difficulty scaling across sites; and compliance and regulatory hurdles. For the AI Deployments step, customers deployed Microsoft AI tools across production, quality, equipment, and supply chain use cases; chose cloud-based infrastructure for scalability; and focused on use cases for operational efficiency and predictive insights. For the Operational Changes step, customer organizations automated low-value tasks; adopted predictive maintenance and real-time monitoring; adopted AI-driven quality control; streamlined onboarding and training; and improved supply chain visibility. For the Business Outcomes step, customer organizations enhanced operational workforce efficiency; reduced defects, rework, and scrap costs; reduced technology infrastructure costs; improved equipment utilization and lifecycle value; and increased supply chain agility and resilience.

Key Statistics

167% to 457%

Return on investment (ROI)

$14.9 million to $31 million

Benefits PV

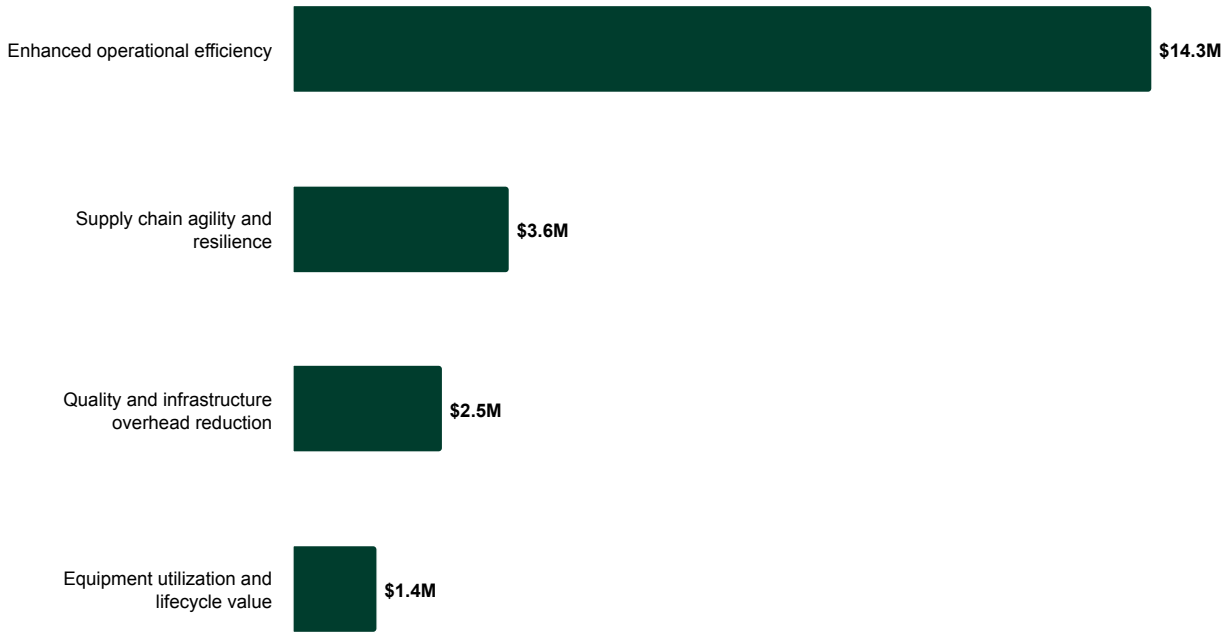
$9.3 million to $25.4 million

Net present value (NPV)

$5.6 million

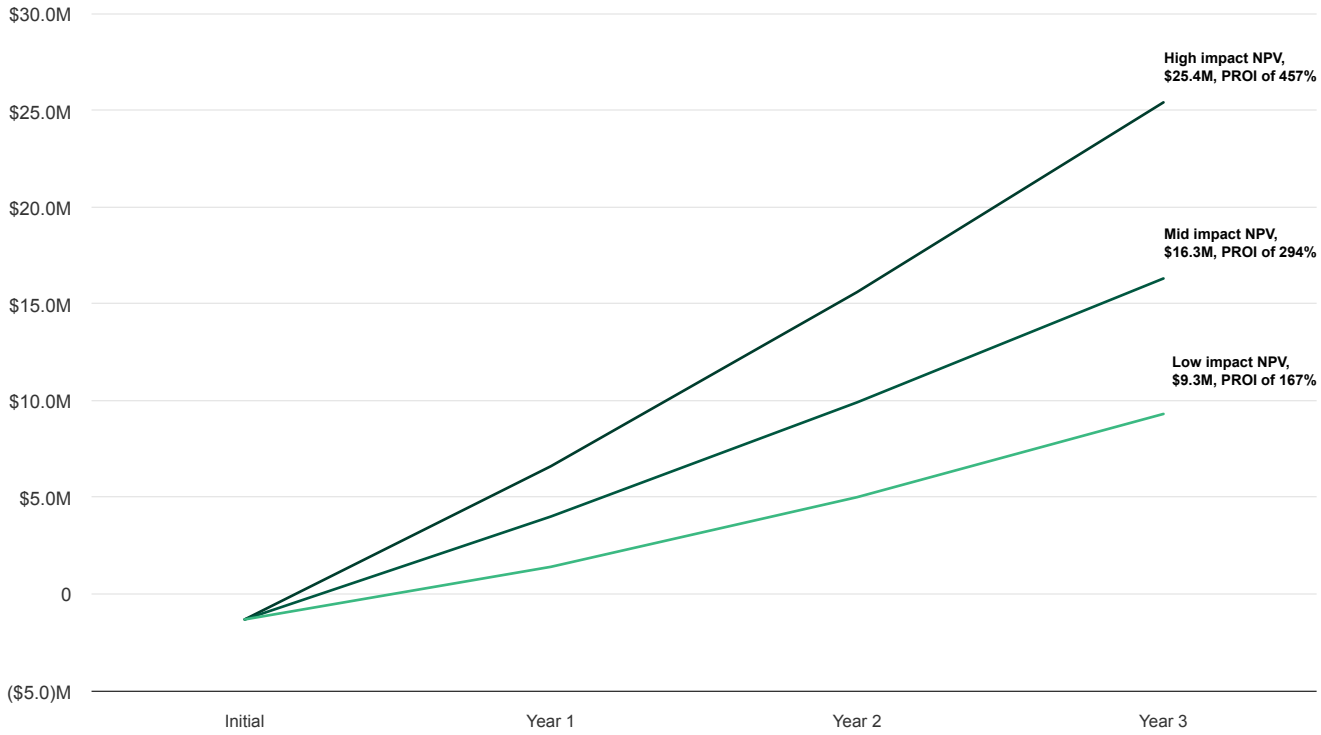
Total costs PV

Projected Benefits (Three-Year)



Figures in the chart are projections for the mid-case scenario.

Three-Year Projected Financial Analysis For The Composite Organization



The Industrial Transformation Journey

Drivers leading to the Microsoft AI solutions investment

Key Challenges

Before their industrial transformation journeys, interviewees described relying heavily on manual, labor-intensive processes and legacy systems. Many used spreadsheets, paper-based workflows, or siloed software tools that lacked integration, timely data access, or automation. In some cases, they had no prior AI or advanced analytics capabilities at all, and their operations depended on flawed judgments, institutional memory, and instinctive decision-making. Interviewees noted how their organizations struggled with common challenges, including:

- **Supply chain complexity and inefficiencies.** Interviewees described their supply chains as increasingly complex and difficult to manage prior to implementing automation and AI tools. Many organizations operated across multiple countries and regions, with varying regulations, logistics providers, and inventory systems. The CVP at the life sciences company said: “We had the data, but it was scattered across systems. We couldn’t act on it in real time, and that limited our ability to optimize production or respond quickly to deviations.”

  Several interviewees noted that their supply chain operations were heavily reliant on manual processes, which introduced delays, errors, and inefficiencies. The CIO at the industrial supplier explained: “We had 30 to 120 containers arriving daily, and our people had just minutes to verify shipments before signing off. Any errors meant lost inventory and lost revenue.” He continued: “We had traffic coordinators who had to manually flag exceptions like hazardous materials or oversized shipments. It was time-consuming and prone to human error.”
- **Scaling limitations.** Interviewees consistently cited challenges in scaling their operations efficiently before integrating cloud-based automation platforms. Many organizations were growing rapidly or operating across multiple facilities and regions but lacked the digital infrastructure to scale processes without adding significant headcount or complexity. The CVP at the life sciences company explained: “We have 30 manufacturing sites worldwide. If we can’t scale a solution across all of them quickly, it’s not viable.”

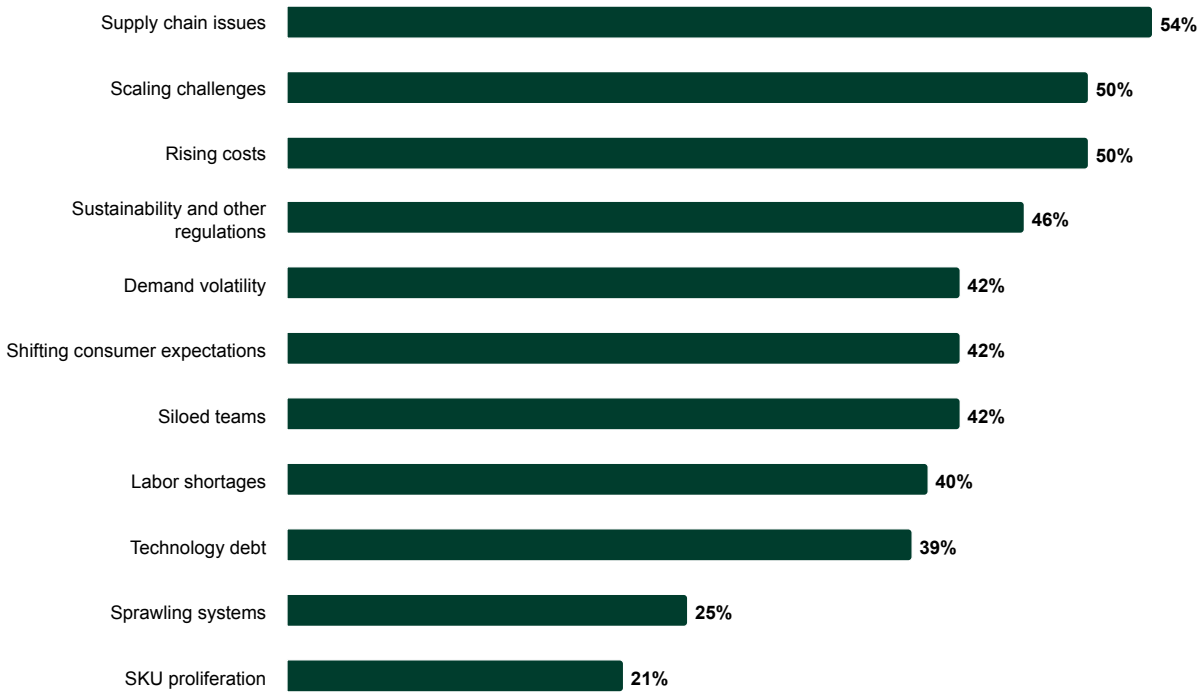
  The same customer noted that scaling was further complicated by compliance requirements. “We can’t just roll out a new tool,” he said. “It has to be validated and meet strict standards. Without a scalable architecture, every deployment becomes a custom project.”
- Rising operational costs.Interviewees also described mounting costs stemming from human error and process inefficiency-driven delays prior to implementing automation-enhanced workflows. Many cited increased labor costs, inefficient manual processes, and penalties from delayed or inaccurate shipments as key contributors. The CIO at the industrial supplier explained: “If we missed just a few SKUs in a shipment, we could lose thousands of dollars. Multiply that across dozens of containers a day, and it adds up fast.”

  In some cases, the lack of live visibility led to overstocking, emergency shipments, and seepage, all of which drove up costs. The director of IT at the automotive manufacturer noted: “We were constantly paying for expedited freight because we didn’t have the data to plan ahead. That’s a huge cost driver.” The CIO at the industrial supplier said: “We had to build a 1% seepage rate into our pricing to account for lost or unverified inventory. That’s real money we were losing every day.”

> *“Our technology just wouldn’t scale. We would have great results in one warehouse but replicating that across 14 others meant rebuilding the solution each time. It wasn’t sustainable.”*
>
> **Director of IT, automotive**

> *"Manual inventory checks meant that as volume increased, so did the errors and delays."*
>
> **CVP, life sciences**

"What pain points were/are you hoping to address with your industrial transformation?"



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Source: Forrester's Q2 2025 Microsoft AI For Industrial Transformation Survey

Composite Organization

Based on the interviews, Forrester constructed a TEI framework, a composite company, and an ROI analysis that illustrates the areas financially affected. The composite organization is representative of the interviewees' organizations, and it is used to present the aggregate financial analysis in the next section. The composite organization has the following characteristics:

- **Description of composite.** The composite organization is a global manufacturing company with 12,000 total employees and $4 billion in annual revenue. Its supply chain spans multiple countries with key customers in many more. It produces industrial fibers which it sells via regional sales offices. The fibers are used to manufacture industrial supplies, where tensile strength, chemical resistance, and heat tolerance are critical, so product quality is of key importance to the composite. Because its products' use is critical to industrial customers, its supply chain must be flexible to accommodate disruptions and maintain its competitive standing.
- **Deployment characteristics.** With the help of Microsoft, the composite leverages its detailed knowledge of its production capabilities to estimate the use cases where specific AI solutions might have the most impact. The use cases focus on gaining efficiencies related to operational employees, product quality and technology infrastructure, plant equipment, and supply chain. With this information, the composite plans its AI tool and automation solution costs such that it can expand the application of the same solutions in the same use cases over three years.

Model Assumptions						
Ref.	**Assumption**	**Source**	**Initial**	**Year 1**	**Year 2**	**Year 3**
R1	Total employees	Composite	12,000	12,000	12,000	12,000
R2	Percentage of employees who work in operational roles	Composite	60%	60%	60%	60%
R3	Fully burdened annual salary for an operational employee	Composite	$80,000	$80,000	$80,000	$80,000
R4	Turnover rate of operational workers	Composite	30%	30%	30%	30%

Analysis Of Benefits

Quantified benefit data as applied to the composite

Total Projected Benefits					
Projected Benefits	**Year 1**	**Year 2**	**Year 3**	**Total**	**Present Value**
Total projected benefits (low)	$4,397,243	$6,036,220	$7,805,066	$18,238,529	$14,850,167
Total projected benefits (mid)	$7,233,266	$8,889,880	$10,586,328	$26,709,474	$21,876,370
Total projected benefits (high)	$10,091,947	$12,620,348	$15,138,817	$37,851,112	$30,978,554

Enhanced Operational Workforce Efficiency

Evidence and data. Interviewees shared that their organizations automated a wide range of low-value, repetitive tasks related to labor-intensive processes, freeing employees to focus on higher-impact work. These processes included manual inventory checks, logistics exception flagging, and routine data entry. The CIO at the industrial supplier noted: "We used to have traffic coordinators manually flag exceptions like hazardous materials. Now AI handles that instantly, and those employees can focus on optimizing carrier selection and cost savings for greater impact."

Automating workflows also reduced the interviewees' organizations' reliance on manual spot-checking and paperwork during inventory intake. The same CIO shared that AI-powered infrared cameras reduced the time to verify container contents from between 15 and 20 minutes per shipment to under 3 minutes per shipment. Manual intervention was then required only 15% of the time. By improving the accuracy of delivered inventory and speeding up inventory replenishment, the interviewees' organizations increased their inventory turnover ratios. This not only improved inventory throughput but also reduced overtime and labor costs across multiple shifts.

In addition to automating low-value tasks, interviewees improved operational employee training and onboarding. New hires were trained and onboarded more efficiently with the help of Copilot and Power Platform apps. The VP of data and insights for the beverage distributor described how AI enhanced their organization's training program, saying: "When I train someone, I could be an expert and still only pass on about 80% of what I know. Then that trainee eventually only passes on 80% of what they know, which is less than my 80%. If we can automate onboarding and training through AI, we won't miss the 20% in the first place."

Modeling and assumptions. For the composite organization, Forrester models:

- Operational employees' average time spent on low-value tasks of 44 hours per month.
- Operational employee task automation between 30% (low) and 66% (high).
- A conservative productivity recapture rate from low-value task automation of 10%.
- A fully burdened hourly rate for an operational employee of $38.
- Average operational employee onboarding time of 3.8 weeks before AI solution deployment.
- An operational employee turnover rate of 40%.
- Reduced onboarding time between 40% (low) and 75% (high).
- A conservative productivity recapture rate from onboarding efficiencies of 10%.

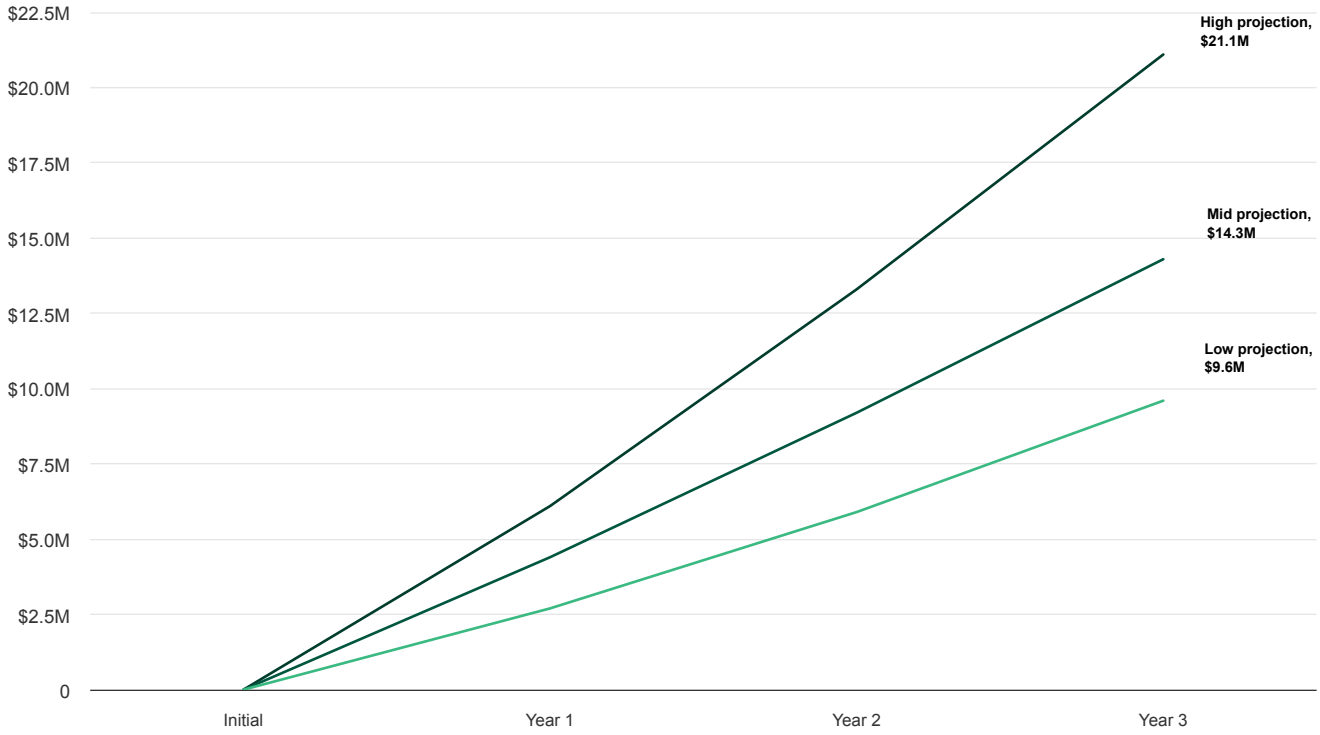
Risks. The value of enhancing operational workforce efficiency will vary with:

- The number of operational employees.
- Their prior time spent on low-value tasks.
- Their hourly rate of pay.
- The turnover rate of operational employees.

- The average time to onboard these hires before deploying AI solutions.
- The ability to recapture employee productivity from the efficiency gains.

Results. This yields a three-year projected PV ranging from $9.6 million (low) to $21.1 million (high).

Enhanced Operational Workforce Efficiency Module: Range of Three-Year Cumulative Impact, PV



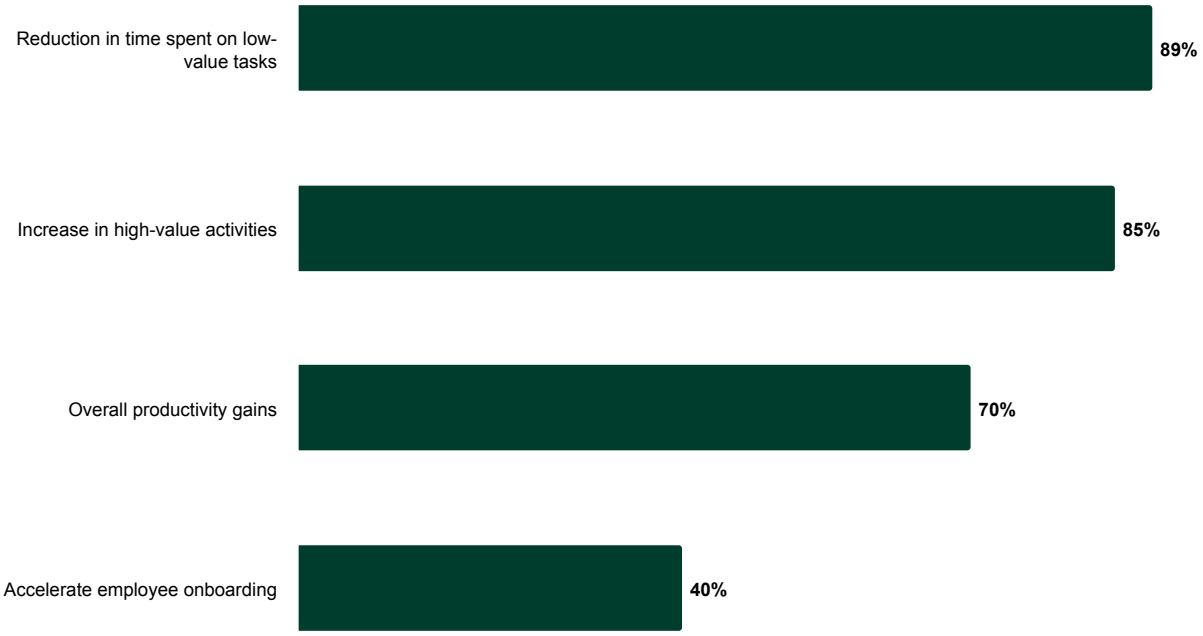
Between 33% (low) and 66% (high)

Low-value task automation rate

Between 40% (low) and 75% (high)

Reduction in onboarding time

“You mentioned that Microsoft solutions helped/are expected to help your organization improve labor productivity during your industrial transformation. Which of the following efficiencies have you experienced/expect to experience as a result of using Microsoft solutions?”



Base: 53 Microsoft Azure customers who are going through/have gone through industrial transformation and have interest in AI.
Source: Forrester’s Q2 2025 Microsoft AI For Industrial Transformation Survey

Enhanced Operational Workforce Efficiency					
Ref.	**Metric**	**Source**	**Year 1**	**Year 2**	**Year 3**
A1	Monthly hours spent on low-value tasks	Survey	44	44	44
$A2_{Low}$			18%	24%	30%
$A2_{Mid}$	Percentage of low-value tasks automated	Survey	30%	36%	42%
$A2_{High}$			42%	54%	66%
A3	Productivity recapture rate	TEI methodology	10%	10%	10%
A4	Fully burdened hourly rate for an operational employee	R3/2,080 (rounded)	$38	$38	$38
$A5_{Low}$			**$2,600,294**	**$3,467,059**	**$4,333,824**
$A5_{Mid}$	**Subtotal: Improved productivity from automation**	**R1*R2*A1*12*A2*A3*A4**	**$4,333,824**	**$5,200,589**	**$6,067,354**
$A5_{High}$			**$6,067,354**	**$7,800,883**	**$9,534,413**
A6	Prior weeks to onboard new operational employees	Survey	3.8	3.8	3.8
$A7_{Low}$			30%	35%	40%
$A7_{Mid}$	Reduction in onboarding time	Survey	40%	50%	60%
$A7_{High}$			55%	65%	75%
A8	Productivity recapture rate	TEI methodology	10%	10%	10%
$A9_{Low}$			**$374,285**	**$436,666**	**$499,046**
$A9_{Mid}$	**Subtotal: Improved productivity from faster onboarding**	**R1*R2*R4*A6*40*A7*A8*A4**	**$499,046**	**$623,808**	**$748,570**
$A9_{High}$			**$686,189**	**$810,950**	**$935,712**
At_{Low}			$2,974,579	$3,903,725	$4,832,870
At_{Mid}	Enhanced operational workforce efficiency	A5+A9	$4,832,870	$5,824,397	$6,815,923
At_{High}			$6,753,542	$8,611,834	$10,470,125
Three-year projected total: $11.7M to $26M			**Three-year projected present value: $9.6M to $21.1M**		

Supply Chain Agility And Resilience

Evidence and data. The interviewees shared that their organizations made decisions faster, reduced manual effort, and improved accuracy with regard to their supply chains. For example, the director of IT at the automotive manufacturer described optimizing materials procurement with the help of Microsoft Copilot. By automating up to 60% of the most time-consuming tasks over three years, he foresaw his organization freeing supply chain analysts to focus on higher-value activities like troubleshooting and expediting delayed materials, bringing in further value.

The CVP from the life sciences company noted how his firm's improved handling of production deviations not only reduced rework and scrap costs but also had the added benefit of further optimizing its supply chain. He said: "When we reduce our deviation work by 30%, we're saving six to nine days. That's six to nine days sooner that we're releasing material for the next process or potentially even for sale. It smooths our entire supply chain and just makes life easier."

The CIO from the plastics company envisioned his firm leveraging AI to have machines and equipment reorder parts and other supplies automatically. He said: "This is going to dramatically reduce the lead time to not just solving equipment failures but also inventory and supply lead times of all kinds. When the machine recognizes it will soon

need a part or a chemical or other type of supply, it just orders it. It knows itself and its rate of production and when the supply will run out."

Automating low-level tasks, reallocating supply chain analysts to higher-value work, reducing deviations, and reducing lead times resulted in supply chain efficiencies that lead to customer order placement and delivery efficiencies. By optimizing the lead time for equipment parts and supplies, improving the number of production errors, and reducing manual effort during inventory intake, production, and delivery, the interviewees' organizations accelerated their customer order cycle times.

The interviewees and survey respondents also reported that the improvements to supply chain visibility and efficiency would reduce the number of stockouts they experienced, which would in turn improve inventory turnover. The survey respondents felt that they could reduce, on average, 40% of their stockouts thanks to supply chain improvements, and this would have an average impact of reducing stockouts from 26 events annually to 15 to 16 events annually, which would in turn increase their inventory turnover.

Several interviewees shared that they could reduce stockouts by improving visibility and accuracy, with potential for this to uplift sales given certain economic conditions. The CIO at the industrial supplier explained: "If you can't deliver what you promise, the customer may not order from you again. Quantification can be difficult because the customer may buy $1,000 today but then doesn't buy $10,000 tomorrow. For our customers, if one order gets messed up, it impacts their whole operation."

Modeling and assumptions. For the composite organization, Forrester models:

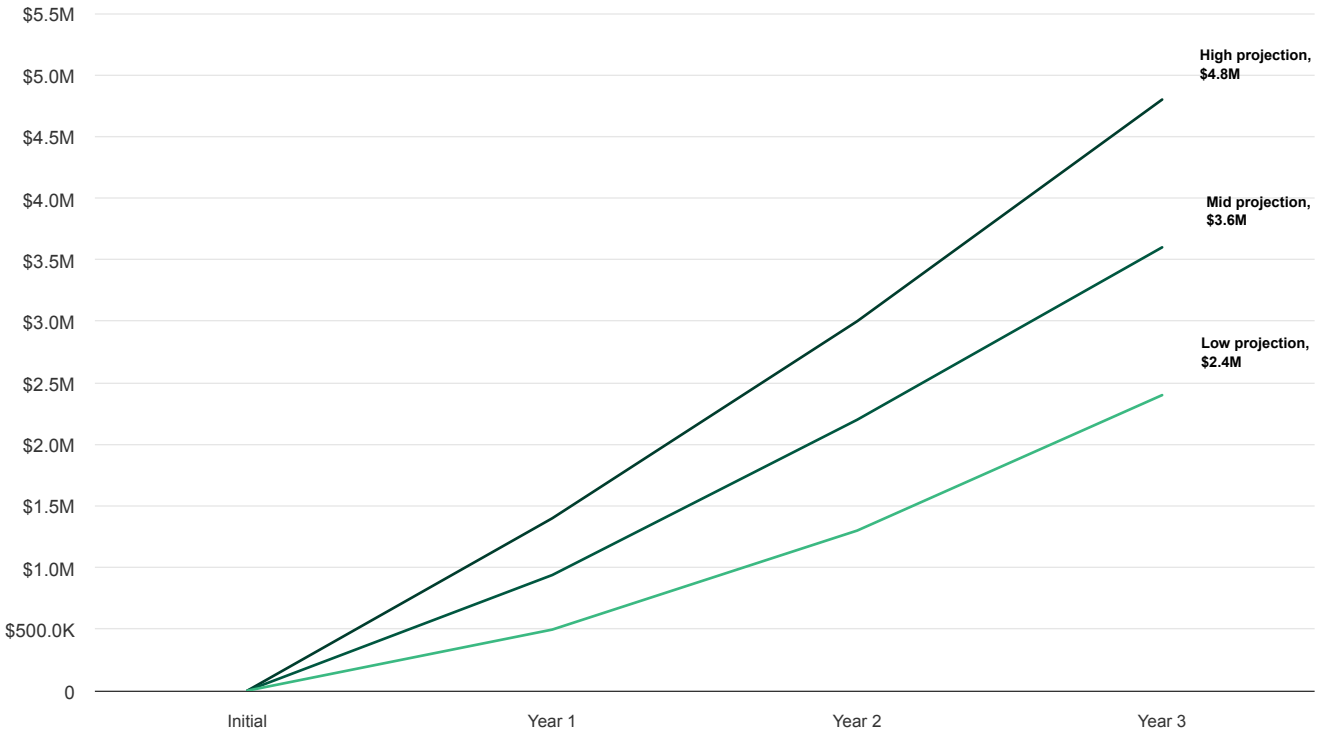
- An annual cost of supply chain delays of $355,300.
- Reduced frequency of supply chain delays between 30% (low) and 50% (high).
- Reduced length of remaining supply chain delays between 25% (low) and 45% (high).
- Twenty-seven stockouts annually before deploying AI solutions, 50% of which result in the loss of a sale.
- An average order value of $3.2 million.
- A profit margin of 10%.

Risks. The value of supply chain agility and resilience will vary with:

- The current annual cost of supply chain delays.
- The prior frequency of supply chain delays.
- The prior average length of a supply chain delay.
- The current number of stockout events.
- The percentage of stockout-impacted orders resulting in a lost sale.
- The average value of orders experiencing a stockout event.
- The profit margin.

Results. This yields a three-year projected PV ranging from $348,000 (low) to $587,000 (high).

Supply Chain Agility And Resilience Module: Range of Three-Year Cumulative Impact, PV



Between 30% (low) and 50% (high)

Reduction in supply chain delay frequency

Between 25% (low) and 45% (high)

Reduction in length of remaining supply chain delays

Between 30% (low) and 50% (high)

Reduction in number of stockouts

Supply Chain Agility And Resilience					
Ref.	**Metric**	**Source**	**Year 1**	**Year 2**	**Year 3**
B1	Annual cost of supply chain delays	Survey	$355,300	$355,300	$355,300
$B2_{Low}$			20%	25%	30%
$B2_{Mid}$	Reduction in frequency of delays	Survey	30%	35%	40%
$B2_{High}$			40%	45%	50%
$B3_{Low}$			**$71,060**	**$88,825**	**$106,590**
$B3_{Mid}$	**Subtotal: Cost savings from fewer supply chain delays**	**B1*B2**	**$106,590**	**$124,355**	**$142,120**
$B3_{High}$			**$142,120**	**$159,885**	**$177,650**
$B4_{Low}$			15%	20%	25%
$B4_{Mid}$	Reduction in length of remaining delays	Survey	25%	30%	35%
$B4_{High}$			35%	40%	45%
$B5_{Low}$			**$42,636**	**$53,295**	**$62,178**
$B5_{Mid}$	**Subtotal: Cost savings from shorter remaining supply chain delays**	**(B1-B3)*B4**	**$62,178**	**$69,284**	**$74,613**
$B5_{High}$			**$74,613**	**$78,166**	**$79,943**
B6	Prior annual number of stockouts	Survey	27	27	27
B7	Prior annual percentage of stockouts resulting in a lost sale	Survey	50%	50%	50%
B8	Average order value	Survey	$3,200,000	$3,200,000	$3,200,000
$B9_{Low}$			10%	20%	30%
$B9_{Mid}$	Reduction in number of stockouts	Survey	20%	30%	40%
$B9_{High}$			30%	40%	50%
B10	Profit margin	Composite	10%	10%	10%
$B11_{Low}$			**$432,000**	**$864,000**	**$1,296,000**
$B11_{Mid}$	**Subtotal: Recouped profit from stockout reduction**	**B6*B7*B8*B9*B10**	**$864,000**	**$1,296,000**	**$1,728,000**
$B11_{High}$			**$1,296,000**	**$1,728,000**	**$2,160,000**
Bt_{Low}			$545,696	$1,006,120	$1,464,768
Bt_{Mid}	Supply chain agility and resilience	B3+B5+B11	$1,032,768	$1,489,639	$1,944,733
Bt_{High}			$1,512,733	$1,966,051	$2,417,593
	Three-year projected total: $3M to $5.9M		**Three-year projected present value: $2.4M to $4.8M**		

Quality And Infrastructure Overhead Reductions

Evidence and data. Interviewees shared that their organizations measurably improved manufacturing processes and operational efficiency, reducing costs associated with defects, rework and scrap, and technology infrastructure with the help of automated workflows and cloud-based AI analytics. These organizations detected defects earlier and more accurately by deploying AI-based visual inspection and live operational monitoring onto production lines. The director of IT at the automotive manufacturer noted, “With AI cameras, we’re catching anomalies in real time, before they become costly problems.”

These early detections significantly reduced the number of defects in products reaching later production stages, with defect reduction a key lagging indicator of increased OEE. One organization reported a 30% decrease in manufacturing defects after implementing AI-driven quality control. The CIO at the plastics company explained: "Before AI, we had to scrap entire batches due to undetected issues. Now, we isolate problems early and avoid wasting materials."

In addition to quality improvements, interviewees highlighted improving their first pass or throughput yield by reducing the need for rework and scrap, along with associated costs. With AI-based, live operational monitoring, organizations ensured that only conforming products advanced through the production process, thus minimizing the need for manual corrections and material waste. The CVP at the life sciences company shared: "We've seen a significant drop in rework. Less time spent fixing errors means more time producing value."

Interviewees also reported lowering their technology infrastructure costs. By consolidating legacy systems and migrating to cloud-based automation platforms, organizations reduced their reliance on expensive, on-premises hardware and maintenance. The director of IT from the automotive manufacturer said: "We moved from fragmented, siloed systems to a unified cloud environment. That cut our infrastructure costs and gave us the scalability we needed to grow."

Importantly, these infrastructure shifts were also key enablers of scalable AI deployment across multiple sites, an investment prerequisite for many of the interviewees' organizations.

Modeling and assumptions. For the composite organization, Forrester models:

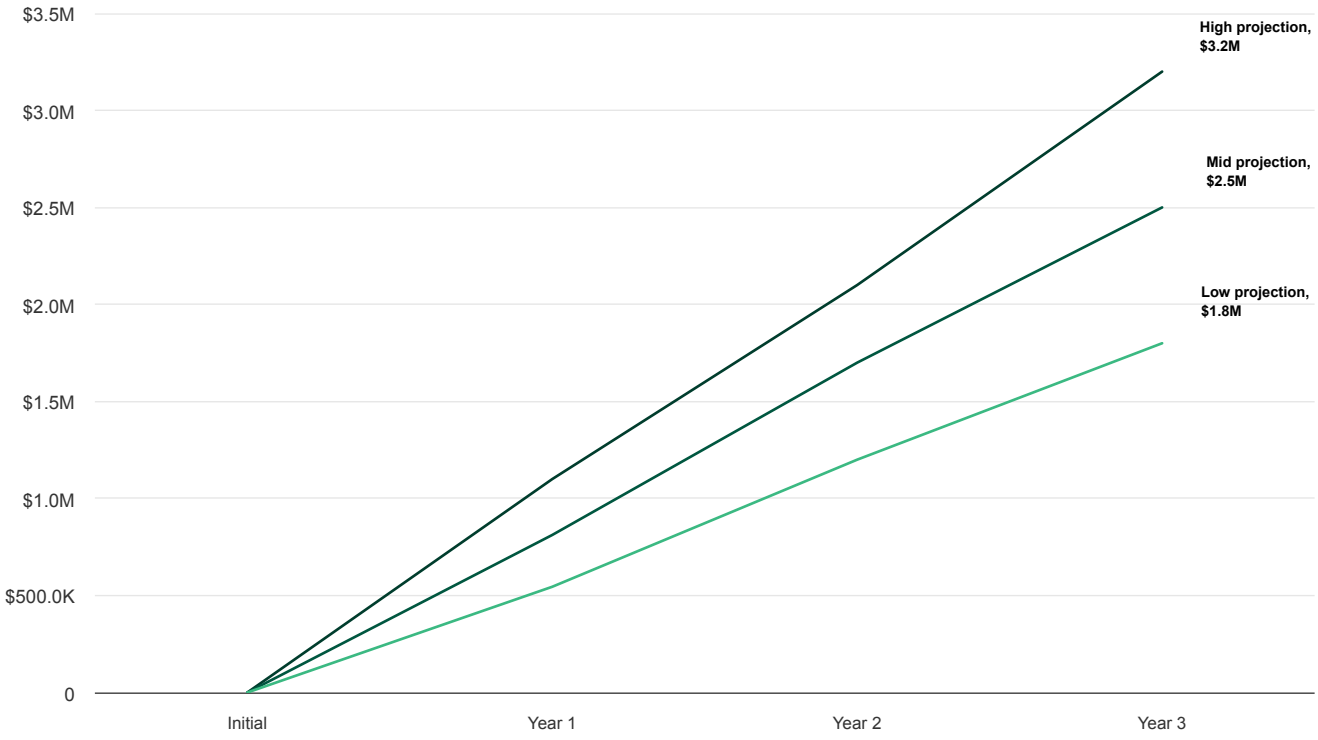
- Total annual rework and scrap costs of $1,248,000.
- Reduced defects between 30% (low) and 50% (high).
- Reduced rework and scrap process costs between 25% (low) and 45% (high).
- Annual technology infrastructure costs of $1,000,000.
- Reduced annual technology infrastructure costs between 30% (low) and 50% (high).

Risks. The value of quality and infrastructure overhead reductions will vary with:

- Annual rework and scrap costs.
- Annual technology infrastructure costs.

Results. This yields a three-year projected PV ranging from $1.8 million (low) to $3.2 million (high).

Quality And Infrastructure Overhead Reduction Module: Range of Three-Year Cumulative Impact, PV



Between 30% (low) and 50% (high)

Reduction in defects

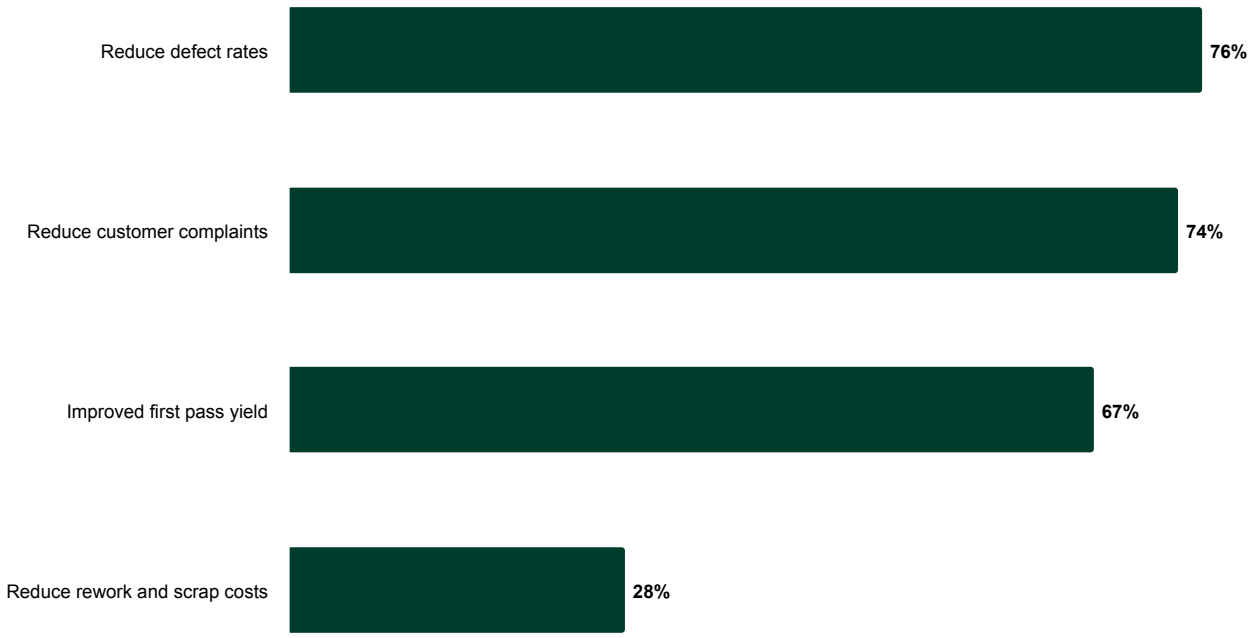
Between 25% (low) and 45% (high)

Reduction in rework and scrap costs

Between 30% (low) and 50% (high)

Reduction in technology infrastructure costs

“You indicated that your organization has/expects to improve quality of manufactured goods with Microsoft solutions. Which of the following areas have/do you expect to improve?”



Base: 46 Microsoft Azure customers who are going through/have gone through industrial transformation and have interest in AI.
Source: Forrester’s Q2 2025 Microsoft AI For Industrial Transformation Survey

Quality And Infrastructure Overhead Reduction					
Ref.	**Metric**	**Source**	**Year 1**	**Year 2**	**Year 3**
C1	Annual rework and scrap costs	Survey	$1,248,000	$1,248,000	$1,248,000
$C2_{Low}$			20%	25%	30%
$C2_{Mid}$	Reduction in defects	Survey	30%	35%	40%
$C2_{High}$			40%	45%	50%
$C3_{Low}$			**$249,600**	**$312,000**	**$374,400**
$C3_{Mid}$	**Subtotal: Cost savings from reduced defect rate**	**C1*C2**	**$374,400**	**$436,800**	**$499,200**
$C3_{High}$			**$499,200**	**$561,600**	**$624,000**
$C4_{Low}$			15%	20%	25%
$C4_{Mid}$	Reduction in rework and scrap process costs	Survey	25%	30%	35%
$C4_{High}$			35%	40%	45%
$C5_{Low}$			**$149,760**	**$187,200**	**$218,400**
$C5_{Mid}$	**Subtotal: Cost savings from improved rework and scrap processes**	**(C1-C3)*C4**	**$218,400**	**$243,360**	**$262,080**
$C5_{High}$			**$262,080**	**$274,560**	**$280,800**
C6	Annual technology infrastructure costs	Survey	$1,000,000	$1,000,000	$1,000,000
$C7_{Low}$			20%	25%	30%
$C7_{Mid}$	Reduction in technology infrastructure costs	Survey	30%	35%	40%
$C7_{High}$			40%	45%	50%
$C8_{Low}$			**$200,000**	**$250,000**	**$300,000**
$C8_{Mid}$	**Subtotal: Technology infrastructure cost savings**	**C6*C7**	**$300,000**	**$350,000**	**$400,000**
$C8_{High}$			**$400,000**	**$450,000**	**$500,000**
Ct_{Low}			$599,360	$749,200	$892,800
Ct_{Mid}	Reduced quality and infrastructure overhead	C3+C5+C8	$892,800	$1,030,160	$1,161,280
Ct_{High}			$1,161,280	$1,286,160	$1,404,800
	Three-year projected total: $2.2M to $3.9M		**Three-year projected present value: $1.8M to $3.2M**		

Equipment Utilization And Lifecycle Value

Evidence and data. Interviewees reported that their organizations significantly reduced equipment-related costs and downtime by enabling AI-based predictive maintenance and live operational monitoring. Their organizations could proactively identify maintenance needs before failures occurred, lowering costs, reducing downtime, and improving availability and performance. In doing so, these organizations moved the needle in a positive direction for the two remaining OEE key components. The CVP at the life sciences company said: "Improving our OEE by leveraging these technologies means that, if we were not supply constrained, then we would have a productivity increase of 15%, driving down our costs in an equal manner. Those are substantial numbers."

Organizations' shift from reactive to predictive maintenance led to a measurable reduction in maintenance costs. The director of IT from the automotive manufacturer shared reducing equipment servicing frequency by 75%, cutting

associated labor and parts costs by thousands of dollars per machine annually. He noted, “We’re no longer replacing parts prematurely or paying for unnecessary technician visits.”

With predictive maintenance, the interviewees’ organizations reduced the frequency of equipment failures and associated downstream costs. AI-driven monitoring systems continuously analyzed machine performance and flagged anomalies before they escalated into breakdowns. The same director of IT stated: “We’ve seen a 40% drop in unplanned equipment failures since implementing AI. That’s had a huge impact on our production continuity.”

Even when failures did occur, the interviewees’ organizations were equipped to diagnose and resolve issues in less time, reducing their time to resolution for equipment failures. By providing technicians with timely diagnostics and historical performance data, organizations not only minimized production disruptions but also reduced their mean time to repa ir. The CVP from the life sciences company said: “Before, it could take hours to figure out what went wrong. Now, we know within minutes — and we’re back up and running faster than ever.”

Modeling and assumptions. For the composite organization, Forrester models:

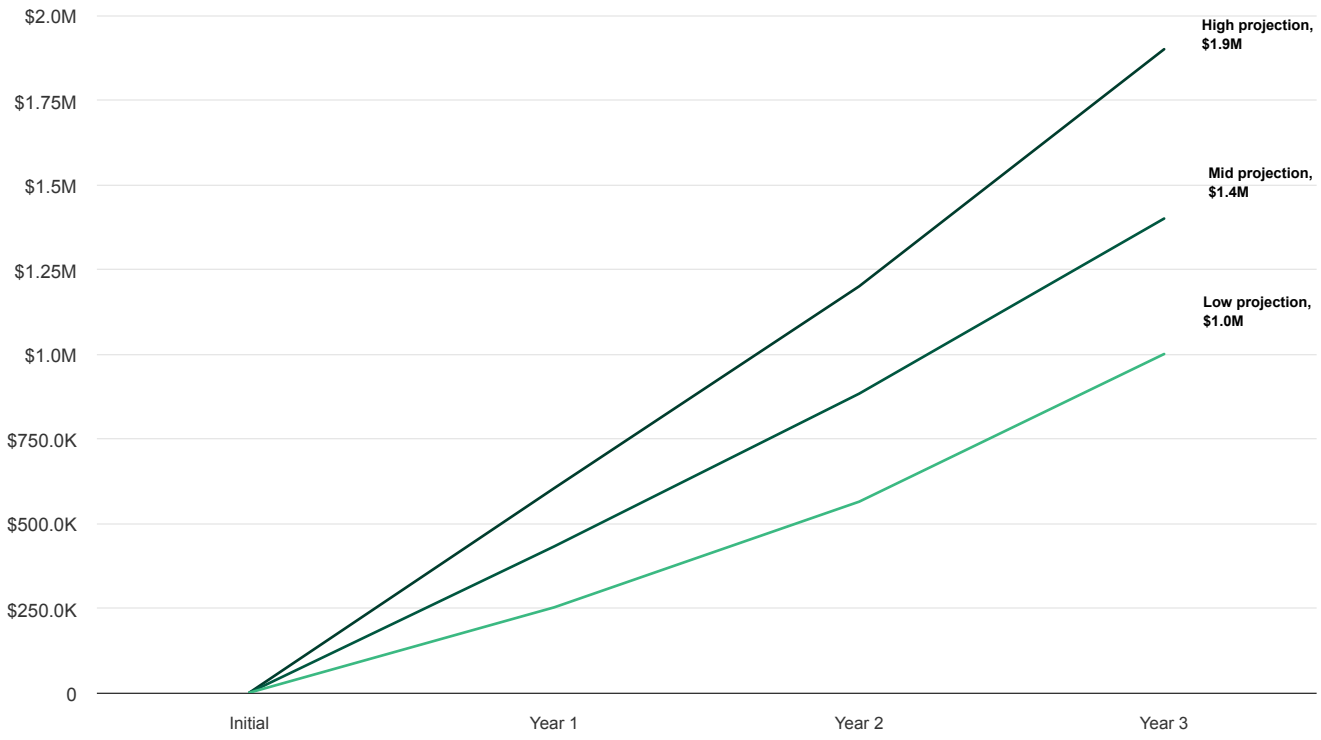
- Annual equipment maintenance costs of $1,398,000.
- Reduced equipment maintenance costs between 30% (low) and 40% (high).
- A total annual cost of equipment failures of $382,800.
- Reduced equipment failure frequency between 30% (low) and 50% (high).
- Reduced length of remaining equipment failure between 30% (low) and 50% (high).

Risks. The value of equipment utilization and lifecycle value will vary with:

- Total annual equipment maintenance costs.
- The current frequency of equipment failures.
- The length of equipment failures.
- The cost of such failures.

Results. This yields a three-year projected PV ranging from $1 million (low) to $1.9 million (high).

Equipment Utilization And Lifecycle Value Module: Range Of Three-Year Cumulative Impact, PV



Between 30% (low) and 40% (high)

Equipment maintenance cost reduction

Between 30% (low) and 50% (high)

Reduction in equipment failure frequency

Between 30% (low) and 50% (high)

Reduction in length of equipment failure

Equipment Utilization And Lifecycle Value					
Ref.	**Metric**	**Source**	**Year 1**	**Year 2**	**Year 3**
D1	Annual maintenance costs	Survey	$1,398,000	$1,398,000	$1,398,000
$D2_{Low}$			10%	15%	30%
$D2_{Mid}$	Percentage reduction in equipment maintenance costs	Survey	20%	25%	30%
$D2_{High}$			30%	35%	40%
$D3_{Low}$			**$139,800**	**$209,700**	**$419,400**
$D3_{Mid}$	**Subtotal: Equipment maintenance savings**	**D1*D2**	**$279,600**	**$349,500**	**$419,400**
$D3_{High}$			**$419,400**	**$489,300**	**$559,200**
D4	Total annual cost of equipment failures	Survey	$382,800	$382,800	$382,800
$D5_{Low}$			20%	25%	30%
$D5_{Mid}$	Reduction in frequency of equipment failures	Survey	30%	35%	40%
$D5_{High}$			40%	45%	50%
$D6_{Low}$			**$76,560**	**$95,700**	**$114,840**
$D6_{Mid}$	**Subtotal: Savings from fewer equipment failures**	**D4*D5**	**$114,840**	**$95,700**	**$153,120**
$D6_{High}$			**$153,120**	**$172,260**	**$191,400**
$D7_{Low}$			20%	25%	30%
$D7_{Mid}$	Reduction in length of equipment failures	Survey	30%	35%	40%
$D7_{High}$			40%	45%	50%
$D8_{Low}$			**$61,248**	**$71,775**	**$80,388**
$D8_{Mid}$	**Subtotal: Additional savings from shorter equipment failures**	(D4-D6)*D7	**$80,388**	**$100,485**	**$91,872**
$D8_{High}$			**$91,872**	**$94,743**	**$95,700**
Dt_{Low}			$277,608	$377,175	$614,628
Dt_{Mid}	Equipment utilization and lifecycle value	D3+D6+D8	$474,828	$545,685	$664,392
Dt_{High}			$664,392	$756,303	$846,300
	Three-year projected total: $1.3M to $2.3M		**Three-year projected present value: $1M to $1.9M**		

Unquantified Benefits

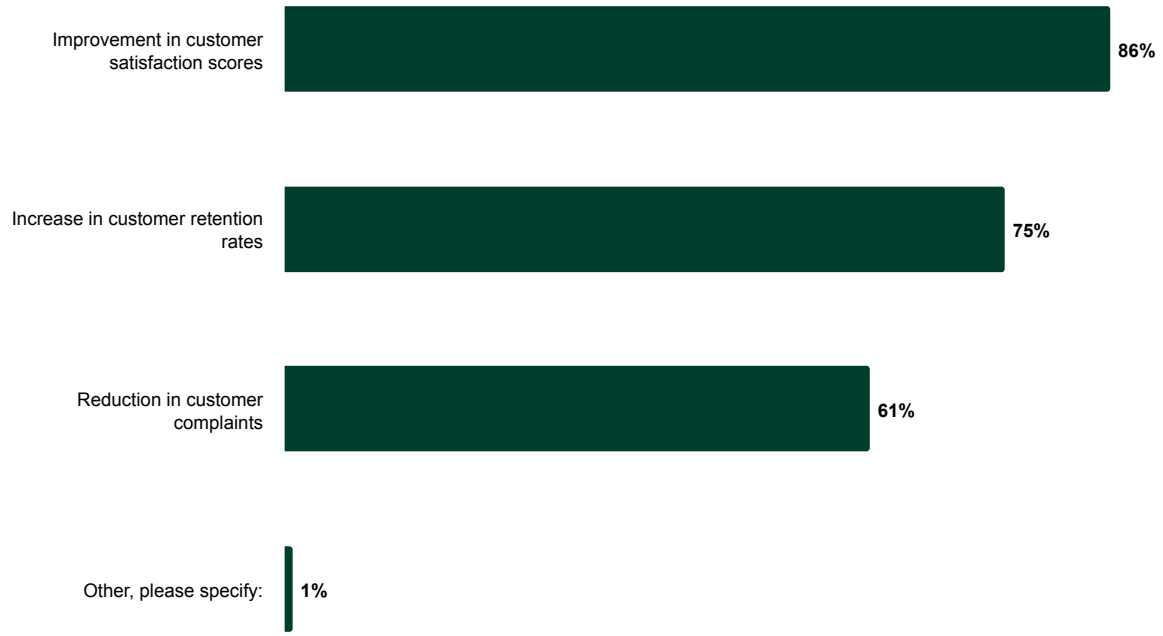
Interviewees mentioned the following additional benefits that their organizations experienced but were not able to quantify:

- **Customer experience.** The interviewees noted their organizations delivered better, faster, and more personalized customer experiences thanks to automated quality monitoring and contextual order updates. For example, the CIO at the plastics company shared: “By integrating AI into our quality assurance and order tracking systems, we’re able to provide customers with timely updates and visual confirmations of their orders. One customer even caught a dye error during production thanks to the image feed — that saved us time, money, and strengthened the relationship.”

  The CEO of the Americas at the connectivity solutions firm added: “Our AI-powered configuration tool allows engineers to instantly generate tailored product recommendations. This has transformed the service experience — customers no longer wait days for a quote. They get options in minutes, which has made us their go-to partner.”

By speeding up customer order placement and reducing lags on customer order production, the interviewees' organizations further shortened their customer order cycle times. These faster, more predictable delivery schedules led to enhanced customer satisfaction, as evidenced by survey respondents who estimated that they either had reduced or would reduce customer complaints by 34% — while also improving customer satisfaction scores and customer retention rates — with the help of AI-driven logistics and order tracking systems.

"You mentioned that Microsoft solutions helped/are expected to impact your organization's customer experience. Which of the following outcomes have you experienced/do you expect to experience as a result of using Microsoft solutions?"



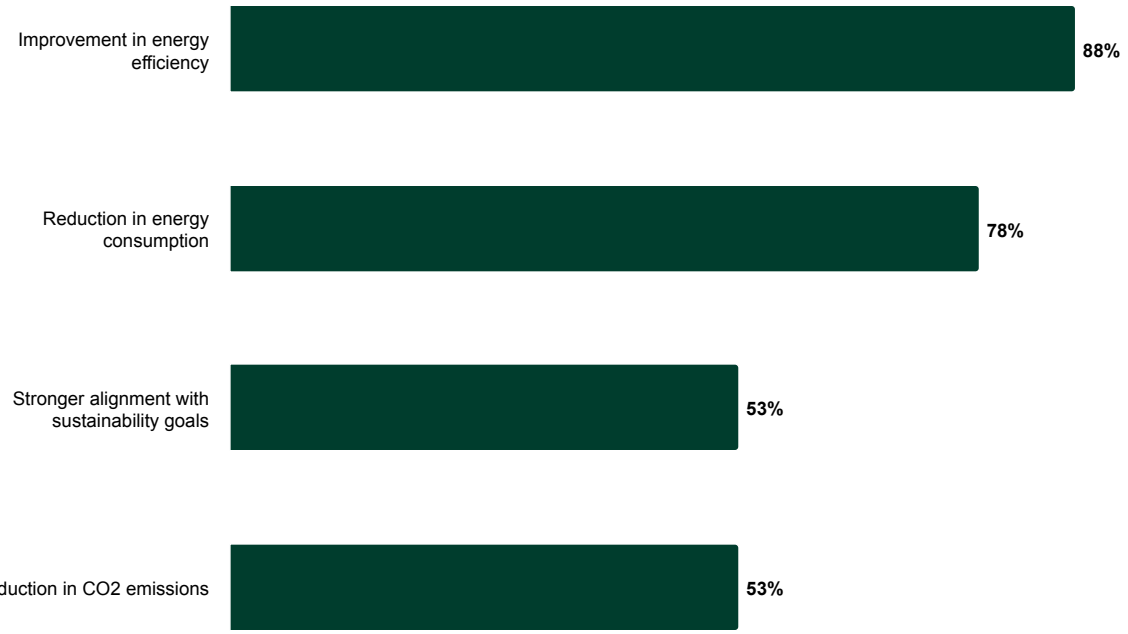
Base: 71 Microsoft Azure customers who are going through/have gone through industrial transformation and have interest in AI.
Source: Forrester's Q2 2025 Microsoft AI For Industrial Transformation Survey

- **Technology scalability.** By adopting a cloud-based approach, the interviewees' organizations could deploy automation tools and adopt AI-driven workflows at one site and then repeatably deploy and adopt the same tools and workflows at the next site. Not only were these technology deployments repeatable (whereas technology and process silos had stymied prior deployments) they were also cost-effective because the tools' backbone was a cloud-based platform that they could tap into from anywhere that had connectivity. Through these methods, the interviewees' organizations scaled digital solutions more efficiently across teams, sites, and geographies. For example, the CVP at the life sciences firm said: "We're not just building AI tools — we're building the foundation to scale them across 30 manufacturing sites. We now have a repeatable model so that what works in one location can be deployed quickly and effectively in others."

  The director of IT at the automotive manufacturer added: "Leveraging cloud-based AI tools has allowed us to centralize our data and standardize our workflows. That's made it easier to roll out new capabilities across our global operations without having to rebuild everything from scratch."
- **Energy efficiency.** As they begin to monitor and optimize equipment performance and production processes, organizations may be able to reduce unnecessary energy consumption across their operations. By identifying inefficiencies in real time and enabling more precise control over energy-intensive systems, survey respondents felt that they could improve energy efficiency for their organizations by 32%. They also felt they could reduce energy

consumption, better align with sustainability goals, and reduce carbon dioxide (CO2) emissions. Such improvements could lead manufacturers to improve sustainability outcomes while reducing their environmental footprint.

"You mentioned that Microsoft solutions helped/are expected to impact your organization's energy consumption. Which of the following outcomes have you experienced/do you expect to experience as a result of using Microsoft solutions?"



Base: 59 Microsoft Azure customers who are going through/have gone through industrial transformation and have interest in AI.
Source: Forrester's Q2 2025 Microsoft AI For Industrial Transformation Survey

Flexibility

The value of flexibility is unique to each customer. There are multiple scenarios in which a customer might implement AI solutions in an industrial transformation context and later realize additional uses and business opportunities, including:

- **Data availability.** Thanks to the same repeatability and cost efficiencies of their adopted cloud-based automation platforms, the interviewees' organizations further amplified the value of their digital transformation efforts by making data more available to end users. For example, the CVP at the life sciences company said: "We have all the data we need — the challenge was making it accessible in real time across our manufacturing network. We're actively building the architecture to do just that." The VP of data and insights at the beverage distributor added: "Our goal is to get insights into the hands of our frontline teams. With cloud-based AI tools, we're making data available where and when it's needed — whether that's in the field, on the shop floor, or in the boardroom."
- **Better decision-making.** As a result of this increase in data availability, combined with the adoption of predictive analytics, the interviewees' organizations enhanced their decision-making capabilities, which led to better and faster decision-making. For example, the VP of data and insights at the beverage distributor said: "We're using cloud-based AI to push insights directly to our frontline teams. That means faster, more informed decisions — not just at the top, but across the organization." The CVP at the life sciences company added: "With AI summarizing complex operational data, our teams are making decisions with more confidence and less delay. It's not just about speed — it's about accuracy and consistency, too."

  Survey respondents estimated that improved data availability and predictive analytics resulted in a 35% increase in decision accuracy and a 35% increase in decision-making speed. They also felt that enhanced decision-making would

improve forecast accuracy and improve alignment between production, inventory, and market demand.

"You mentioned that Microsoft solutions helped/are expected to help your organization improve decision-making and data insights during your industrial transformation. Which of the following efficiencies have you experienced/do you expect to experience as a result of using Microsoft solutions?"

Base: 79 Microsoft Azure customers who are going through/went through industrial transformation and have interest in AI.
Note: Showing top four responses
Source: Forrester's Q2 2025 Microsoft AI For Industrial Transformation Survey

- **Strategic support.** The interviewees shared that beyond technology, the presence of Microsoft and the support of Microsoft partners also advanced their strategic transformation initiatives. For example, the VP of data and insights at the beverage distributor said, "When we needed help understanding how to scale AI across our business, the solution engineering team came to sit with our developers and walk through use cases with us." The CVP at the life sciences company said: "We expect to see meaningful impact this year. And, by the end of our five-year partnership, we should have a very well-functioning operational model for how we are using AI in manufacturing." Survey respondents in particular noted the importance of Microsoft partners in the success of their AI-driven transformations, with 88% of respondents either agreeing or strongly agreeing that these partners played a crucial role in implementing and supporting their AI solutions.

Flexibility would also be quantified when evaluated as part of a specific project (described in more detail in Total Economic Impact Approach).

Analysis Of Costs

Quantified cost data as applied to the composite

Total Costs							
Ref.	**Cost**	**Initial**	**Year 1**	**Year 2**	**Year 3**	**Total**	**Present Value**
Dtr	Upfront and annual investment	$1,200,000	$1,280,000	$1,568,000	$1,856,000	$5,904,000	$5,053,944
	Total costs (risk-adjusted)	$1,320,000	$1,408,000	$1,724,800	$2,041,600	$6,494,400	$5,559,339

Upfront And Annual Investment

Evidence and data. The interviewees and survey respondent incurred upfront and annual investment costs associated with Microsoft's AI solutions. Survey respondents estimated needing an average of $1.2 million for upfront costs associated with four broad use cases: operational employee efficiency, quality of product, equipment effectiveness, and supply chain resilience. Fees were associated with the following workflows: hardware and infrastructure setup; initial deployment, migration, and integration services; Microsoft partner professional services fees; and other Microsoft setup fees across four broad use cases.

On deployment, migration, and integration services, the CVP from the life sciences firm noted: "The real cost wasn't just the tools — it was integrating them into our existing systems and validating them for compliance. That took time, expertise, and money." Some organizations also engaged Microsoft or partner professional services to support implementation. The VP of data and insights from the beverage distributor shared: "We worked directly with Microsoft's engineering team to help our developers understand how to build and scale AI solutions. That level of support was invaluable, but it came with a cost."

Survey respondents estimated needing an average of $1.3 million annually for recurring costs to support the same four use cases. These costs include: subscription fees; maintenance and support; Azure compute spend, storage, and networking; and training and development efforts. For the interviewees, training and development emerged as a particularly important investment category to drive AI adoption. The VP of data and insights from the beverage distributor said: "We're constantly educating our teams on how to use these tools effectively. That includes formal training, workshops, and time spent learning on the job. It's not a one-time cost — it's part of our long-term strategy."

Modeling and assumptions. For the composite organization Forrester models:

- Four broad use cases.
- Total upfront costs of $1.2 million, which includes initial Microsoft licensing fees; hardware and infrastructure setup; initial deployment, migration, and integration services; Microsoft partner professional services fees; and other Microsoft setup fees.
- Total ongoing costs of $1.28 million in Year 1 to $1.86 million in Year 3, which includes subscription or licensing fees; maintenance and support; Azure compute spend, storage, and networking; and training and development efforts.

Risks. The total costs of upfront and annual investment will vary with:

- The number and breadth of use cases.
- The solutions required to achieve the desired transformational goal and these solutions' mix of initial Microsoft licensing fees; hardware and infrastructure setup costs; initial deployment, migration, and integration services costs; Microsoft partner professional services fees; and other Microsoft setup fees.
- The solutions required to achieve the desired transformational goal and these solutions' mix of subscription or licensing fees; maintenance and support costs; spend on Azure compute, storage, and networking to support these

AI solutions; and training and development effort costs.

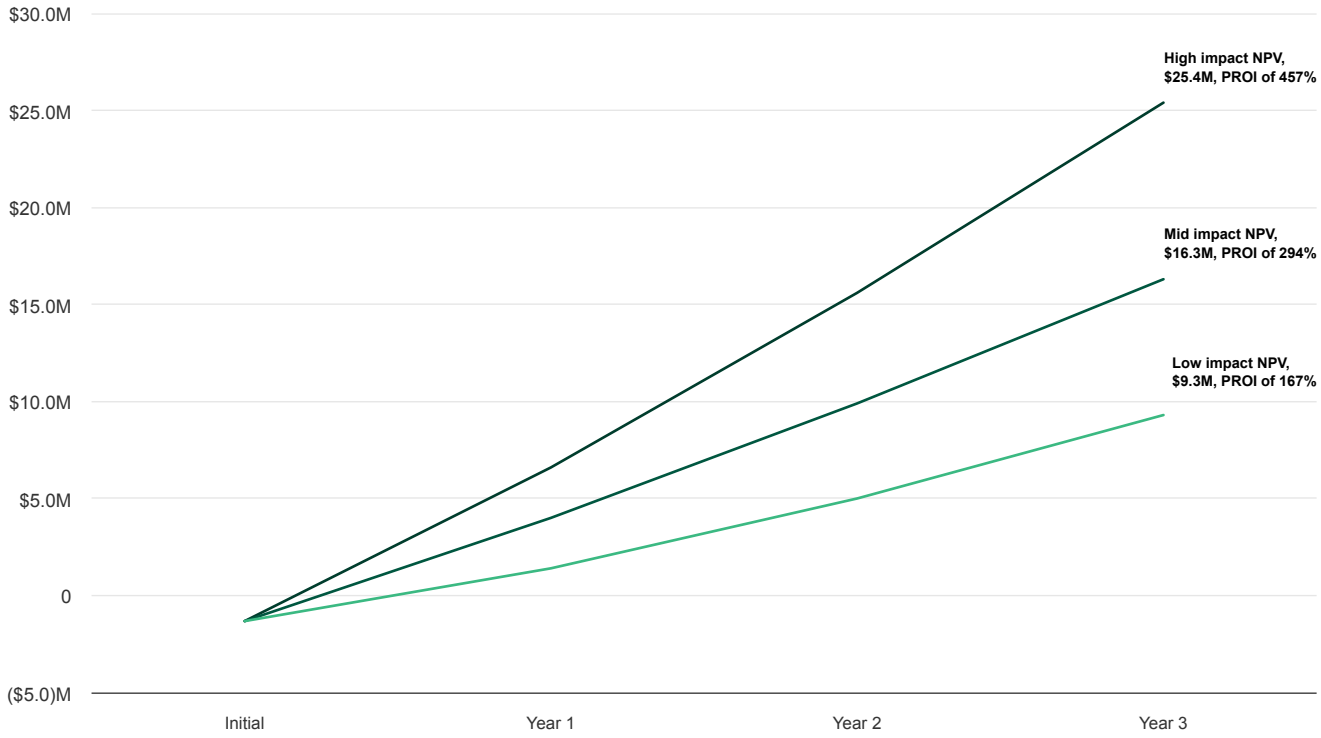
Results. To account for these risks, Forrester adjusted this cost upward by 10%, yielding a three-year, risk-adjusted total PV (discounted at 10%) of $5.6 million.

Upfront And Annual Investment						
Ref.	**Metric**	**Source**	**Initial**	**Year 1**	**Year 2**	**Year 3**
E1	Upfront investment	Survey	$1,200,000	$0	$0	$0
E2	Annual investment	Survey	$0	$1,280,000	$1,568,000	$1,856,000
Et	Upfront and annual investment	E1+E2	$1,200,000	$1,280,000	$1,568,000	$1,856,000
	Risk adjustment	↑10%				
Etr	Upfront and annual investment (risk-adjusted)		$1,320,000	$1,408,000	$1,724,800	$2,041,600
	Three-year total: $6,494,400			**Three-year present value: $5,559,339**		

Financial Summary

Consolidated Three-Year, Risk-Adjusted Metrics

Three-Year Projected Financial Analysis For The Composite Organization



Cash Flow Analysis (Risk-Adjusted)						
	Initial	Year 1	Year 2	Year 3	Total	Present Value
Total costs	($1,320,000)	($1,408,000)	($1,724,800)	($2,041,600)	($6,494,400)	($5,559,339)
Total benefits (low)	$0	$4,397,243	$6,036,220	$7,805,066	$18,238,529	$14,850,167
Total benefits (mid)	$0	$7,233,266	$8,889,880	$10,586,328	$26,709,474	$21,876,370
Total benefits (high)	$0	$10,091,947	$12,620,348	$15,138,817	$37,851,112	$30,978,554
Net benefits (low)	($1,320,000)	$2,989,243	$4,311,420	$5,763,466	$11,744,129	$9,290,828
Net benefits (mid)	($1,320,000)	$5,825,266	$7,165,080	$8,544,728	$20,215,074	$16,317,031
Net benefits (high)	($1,320,000)	$8,683,947	$10,895,548	$13,097,217	$31,356,712	$25,419,215
PROI (low)						167%
PROI (mid)						294%
PROI (high)						457%

ⓘ Please Note

The financial results calculated in the Benefits and Costs sections can be used to determine the ROI, NPV, and payback period for the composite organization's investment. Forrester assumes a yearly discount rate of 10% for this analysis.

These risk-adjusted ROI, NPV, and payback period values are determined by applying risk-adjustment factors to the unadjusted results in each Benefit and Cost section.

The initial investment column contains costs incurred at "time 0" or at the beginning of Year 1 that are not discounted. All other cash flows are discounted using the discount rate at the end of the year. PV calculations are calculated for each total cost and benefit estimate. NPV calculations in the summary tables are the sum of the initial investment and the discounted cash flows in each year. Sums and present value calculations of the Total Benefits, Total Costs, and Cash Flow tables may not exactly add up, as some rounding may occur.

TEI Framework And Methodology

From the information provided in the interviews, Forrester constructed a Total Economic Impact™ framework for those organizations considering an investment in Microsoft AI solutions in an industrial transformation context.

The objective of the framework is to identify the cost, benefit, flexibility, and risk factors that affect the investment decision. Forrester took a multistep approach to evaluate the impact that Microsoft AI solutions can have on an organization undertaking an industrial transformation.

Due Diligence

Interviewed Microsoft stakeholders and Forrester analysts to gather data relative to Microsoft's AI solutions in an industrial context.

Interviews

Interviewed six decision-makers at organizations using Microsoft AI solutions for an industrial transformation to obtain data about costs, benefits, and risks and surveyed 125 Microsoft Azure customers who are going through or have gone through industrial transformations and have interest in AI.

Composite Organization

Designed a composite organization based on characteristics of the interviewees' organizations.

Financial Model Framework

Constructed a financial model representative of the interviews using the TEI methodology and risk-adjusted the financial model based on issues and concerns of the interviewees.

Case Study

Employed four fundamental elements of TEI in modeling the investment impact: benefits, costs, flexibility, and risks. Given the increasing sophistication of ROI analyses related to IT investments, Forrester's TEI methodology provides a complete picture of the total economic impact of purchase decisions. Please see Appendix A for additional information on the TEI methodology.

Glossary

Total Economic Impact Approach

Benefits

Benefits represent the value the solution delivers to the business. The TEI methodology places equal weight on the measure of benefits and costs, allowing for a full examination of the solution's effect on the entire organization.

Costs

Costs comprise all expenses necessary to deliver the proposed value, or benefits, of the solution. The methodology captures implementation and ongoing costs associated with the solution.

Flexibility

Flexibility represents the strategic value that can be obtained for some future additional investment building on top of the initial investment already made. The ability to capture that benefit has a PV that can be estimated.

Risks

Risks measure the uncertainty of benefit and cost estimates given: 1) the likelihood that estimates will meet original projections and 2) the likelihood that estimates will be tracked over time. TEI risk factors are based on "triangular distribution."

Financial Terminology

Present value (PV)

The present or current value of (discounted) cost and benefit estimates given at an interest rate (the discount rate). The PV of costs and benefits feed into the total NPV of cash flows.

Net present value (NPV)

The present or current value of (discounted) future net cash flows given an interest rate (the discount rate). A positive project NPV normally indicates that the investment should be made unless other projects have higher NPVs.

Return on investment (ROI)

A project's expected return in percentage terms. ROI is calculated by dividing net benefits (benefits less costs) by costs.

Discount rate

The interest rate used in cash flow analysis to take into account the time value of money. Organizations typically use discount rates between 8% and 16%.

Payback

The breakeven point for an investment. This is the point in time at which net benefits (benefits minus costs) equal initial investment or cost.

Appendixes

APPENDIX A

Total Economic Impact

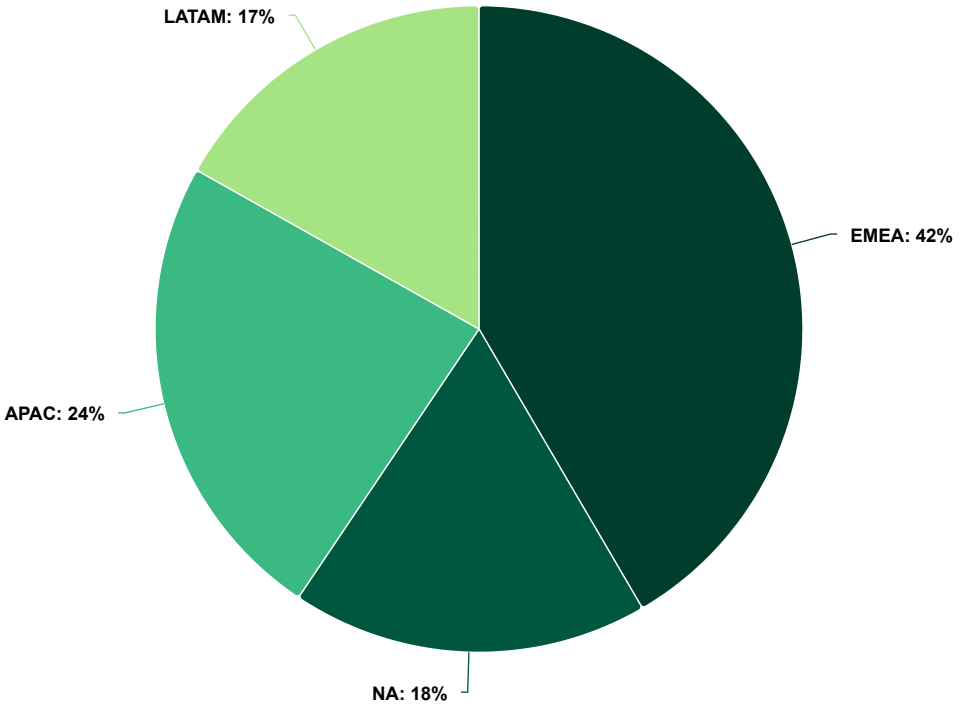
Total Economic Impact is a methodology developed by Forrester Research that enhances a company's technology decision-making processes and assists solution providers in communicating their value proposition to clients. The TEI methodology helps companies demonstrate, justify, and realize the tangible value of business and technology initiatives to both senior management and other key stakeholders.

APPENDIX B

Interview and Survey Demographics

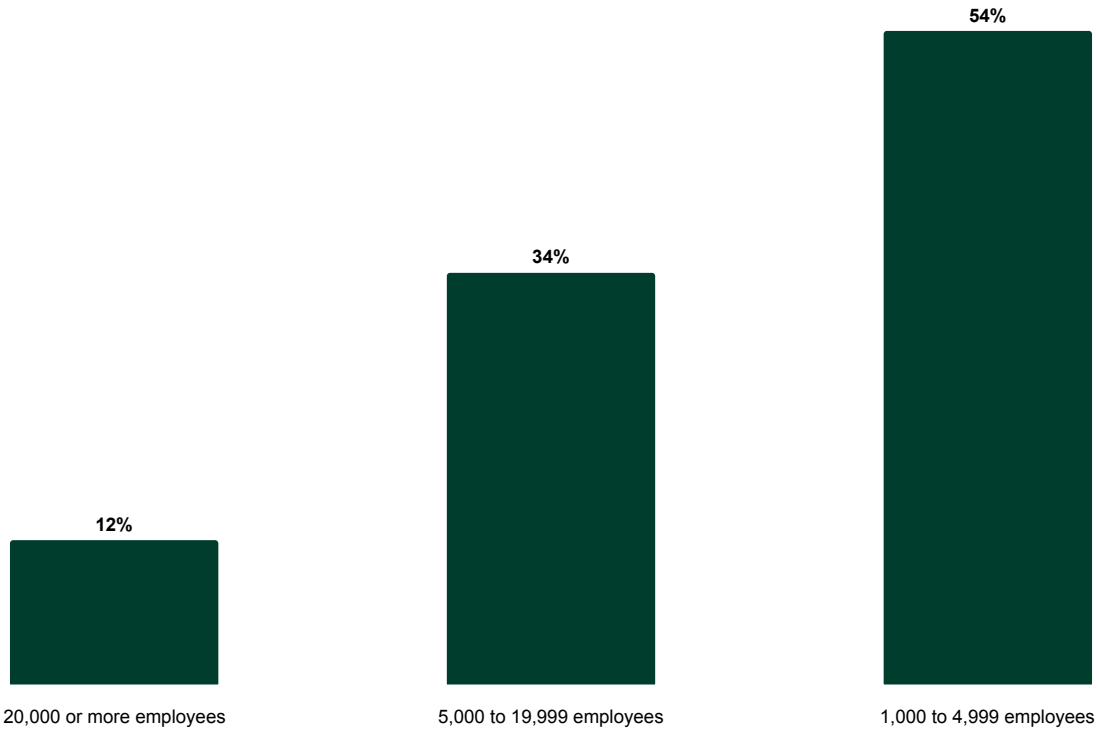
Interviews			
Role	**Industry**	**Region**	**Total Employees**
CIO	Plastics	North America	150
CIO	Industrial supplies	North America	2,000
CEO of Americas	Connectivity solutions	Global	6,000
VP of data and insights	Beverage distribution	North America	8,000
CVP	Life sciences	Global	75,000
Director of IT	Automotive	Global	175,000

"In which country are you located?"



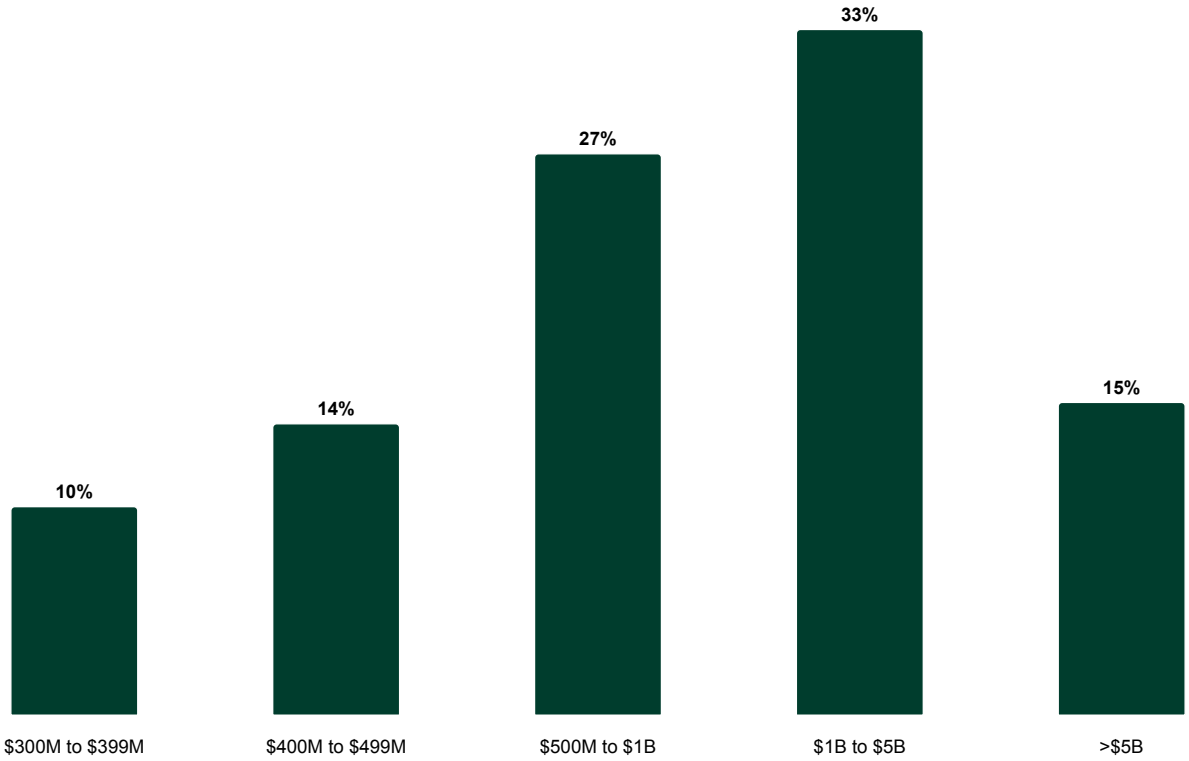
Base: 125 Microsoft Azure customers who are going through/have gone through industrial transformation and have interest in AI.
Source: Forrester's Q2 2025 Microsoft AI For Industrial Transformation Survey

“Using your best estimate, how many employees work for your firm/organization worldwide?”



Base: 125 Microsoft Azure customers who are going through/have gone through industrial transformation and have interest in AI.
Source: Forrester’s Q2 2025 Microsoft AI For Industrial Transformation Survey

“Using your best estimate, what is your organization’s annual revenue (USD)?”



Base: 125 Microsoft Azure customers who are going through/have gone through industrial transformation and have interest in AI.
Source: Forrester’s Q2 2025 Microsoft AI For Industrial Transformation Survey

“Which of the following best describes the industry to which your company belongs?”

Base: 125 Microsoft Azure customers who are going through/have gone through industrial transformation and have interest in AI.
Source: Forrester’s Q2 2025 Microsoft AI For Industrial Transformation Survey

APPENDIX C

Endnotes

[1] Total Economic Impact is a methodology developed by Forrester Research that enhances a company's technology decision-making processes and assists solution providers in communicating their value proposition to clients. The TEI methodology helps companies demonstrate, justify, and realize the tangible value of business and technology initiatives to both senior management and other key stakeholders.

[2] Microsoft's AI solutions as used by the interviewees include Azure IoT Operations, Azure Arc for management and governance, Azure Kubernetes Services (AKS), Azure OpenAI, Microsoft Data Services in Fabric (MDS), Copilot plugin for manufacturing, Microsoft Fabric, Azure AI Studio, Copilot, Copilot Studio, Power Platform, and Copilot in Power Apps.

Disclosures

Readers should be aware of the following:

This study is commissioned by Microsoft and delivered by Forrester Consulting. It is not meant to be used as a competitive analysis.

Forrester makes no assumptions as to the potential ROI that other organizations will receive. Forrester strongly advises that readers use their own estimates within the framework provided in the study to determine the appropriateness of an investment in Microsoft AI solutions for industrial transformation.

Microsoft reviewed and provided feedback to Forrester, but Forrester maintains editorial control over the study and its findings and does not accept changes to the study that contradict Forrester's findings or obscure the meaning of the study.

Microsoft provided the customer names for the interviews but did not participate in the interviews.

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