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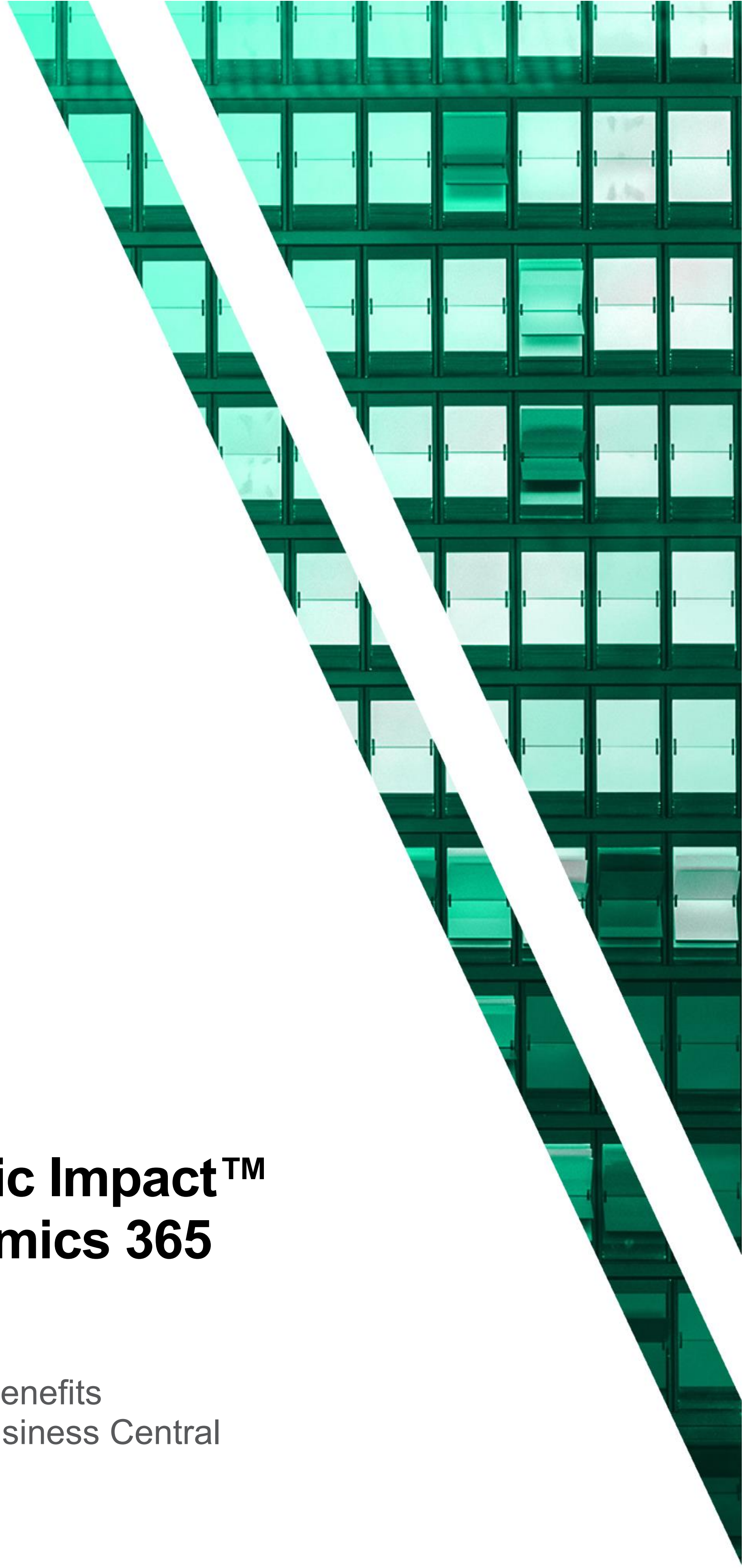

The Total Economic Impact™ Of Microsoft Dynamics 365 Business Central

Cost Savings And Business Benefits Enabled By Dynamics 365 Business Central

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A FORRESTER TOTAL ECONOMIC IMPACT™ STUDY COMMISSIONED BY MICROSOFT

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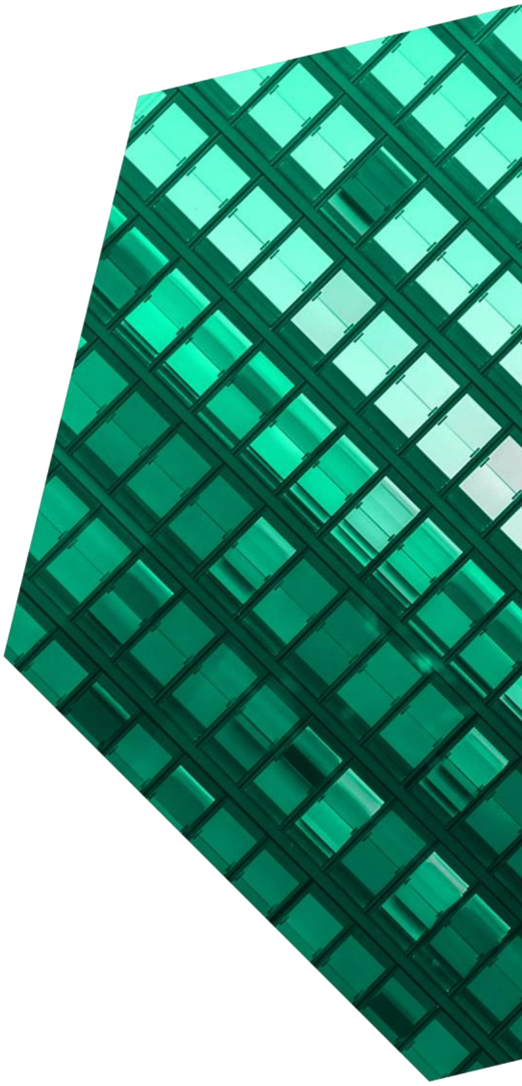


ABOUT FORRESTER CONSULTING

Forrester provides independent and objective research-based consulting to help leaders deliver key transformation outcomes. Fueled by our customer-obsessed research, Forrester's seasoned consultants partner with leaders to execute on their priorities using a unique engagement model that tailors to diverse needs and ensures lasting impact. For more information, visit forrester.com/consulting.

Executive Summary

Microsoft Dynamics 365 Business Central allows small to medium-sized organizations to modernize ERP capabilities and scale in the cloud. This yields productivity improvements to finance and operations staff, better decision-making based on real-time information, and opportunities for more profitable operations — all while avoiding costs associated with on-premises infrastructure.

Microsoft Dynamics 365 Business Central is a cloud-based business management solution for small to medium-sized businesses. Microsoft commissioned Forrester Consulting to conduct a Total Economic Impact™ (TEI) study and examine the potential return on investment (ROI) enterprises may realize by deploying Dynamics 365 Business Central.[1] The purpose of this study is to provide readers with a framework to evaluate the potential financial impact of Business Central on their organizations.

To better understand the benefits, costs, and risks associated with this investment, Forrester interviewed five representatives with experience using Business Central. For the purposes of this study, Forrester aggregated the interviewees' experiences and combined the results into a single composite organization with revenue of $15 million per year and 150 employees.

Productivity improvement for finance and operations staff

Up to 18%

Interviewees noted that prior to using Business Central, their organizations struggled to scale enterprise resource planning (ERP) capabilities with the ever-increasing demands of their business. The organizations' ERP stacks often consisted of several disparate on-premises solutions with limited interoperability, which obscured information required for optimal decision-making and forced manual work in finance and supply-chain operations processes.

KEY STATISTICS

Return on investment (ROI)
172%

Net present value (NPV)
$306K

After the investment in Business Central, the interviewees described improvements to staff productivity, cost avoidance on third-party reporting and consulting fees, and greatly simplified and less costly ERP deployments in the cloud. Interviewees also detailed ways in which Business Central allowed their organizations to unlock additional revenue that was not possible with their legacy solutions.

KEY FINDINGS

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

- **A 9% to 18% improvement to productivity for finance and operations staff.** Deploying Business Central allows the composite organization's finance and operations staff to reduce the amount of time they spend on manual reporting and information reconciliation while also providing improved visibility and tools to accelerate and improve the quality of decision-making. This reclaimed personnel capacity is worth a PV of $116,000 to the composite.

- **Avoided hires amid organizational growth.** As the organization grows, finance and operations responsibilities grow as well. Business Central enables the composite's finance and operations staff to operate more effectively in the present, which offsets subsequent hires the organization requires as it grows.

- **Avoided third-party fees of nearly $30,000 annually.** The organization previously paid for external reporting on a quarterly basis because finance staff were working at capacity. It also engaged third-party consulting services to work on customizations and integrations amid the complexity of the legacy ERP deployment. After implementing Dynamics 365, the composite eliminates third-party reporting costs because IT staff can internally manage integration and customization work.

- **Avoided costs of legacy ERP solutions and support worth $50,600.** The composite was paying several vendors across its ERP stack while incurring the costs typical to on-premises solutions including infrastructure, maintenance personnel costs, and upgrade fees. By consolidating ERP functionality on Business Central, the organization avoids these costs.

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

- **Net profit from Business Central-enabled revenue.** Business Central enables organizations to undertake projects and onboard customers. This leads directly to additional revenue and profit.

- **Improved business outcomes from more informed decision-making.** Interviewees said day-to-day decision-making for finance and operations personnel improves with Business Central due to having visibility into real-time information.

- **Improved employee experience.** With Business Central, finance and operations personnel are less burdened by manual effort and reconciliation tasks mandated by a disparate set of ERP solutions.

- **Works with Microsoft solutions.** Business Central natively integrates with other Microsoft solutions, which drives additional value from these solutions.

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

- **Subscription fees paid to Microsoft totaling $51,500 over three years.** The composite organization pays a monthly subscription fee per user for Business Central access.

- **Implementation, ongoing management, and training personnel costs of $126,000 over three years.** The composite organization leverages internal personnel resources to deploy Business Central over a four-month period. Once deployed, part-time staff work to maintain and upgrade the solution (e.g., making customizations and integrations).

The representative interviews and financial analysis found that a composite organization experiences benefits of $484,000 over three years versus costs of $178,000, adding up to a net present value (NPV) of $306,000 and an ROI of 172%.

ROI
172%

BENEFITS PV
$484K

NPV
$306K

PAYBACK
7 months

Benefits (Three-Year)

"[Business Central] is making it possible for us to chase those new revenue opportunities because we can actually manage it now with our current resources."

— VP of commerce operations, technology manufacturing

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 Dynamics 365 Business Central.

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 Dynamics 365 Business Central can have on an organization.

DUE DILIGENCE
Interviewed Microsoft stakeholders and Forrester analysts to gather data relative to Dynamics 365 Business Central.

INTERVIEWS
Interviewed five representatives at organizations using Dynamics 365 Business Central to obtain data with respect to costs, benefits, and risks.

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.

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 Dynamics 365 Business Central.

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.

The Microsoft Dynamics 365 Business Central Customer Journey

Drivers leading to the Dynamics 365 Business Central investment

Interviews			
Role	**Industry**	**Region**	**Revenue (USD)**
Manager of data integration	Biotech	EMEA	~$7M
Founder	Financial services	EMEA	~$5M
Manager of finance and integrations	Healthcare	EMEA	~$350M
CEO	IT services	EMEA	~$3M
VP of commerce operations	Technology manufacturing	North America	~$5M

KEY CHALLENGES

The interviewees noted how their organizations struggled with common challenges, including:

- **Disparate collections of on-premises ERP tools.** Many of the interviewees described the homegrown state of their organizations' ERP functionality. Most of the interviewees' organizations used a siloed collection of on-premises, Microsoft, and non-Microsoft ERP tools they had acquired and maintained for specific functionality (e.g., payables, customer invoicing, materials forecasting). Over time, this led to redundant functionality, limited interoperability between tools, and excessive costs. Finance and operational personnel were required to manually reconcile information between these systems, which resulted in lost productivity.

- **Lacking ERP capabilities and customizations to support the business.** Interviewees told Forrester that adding additional ERP tools or capabilities to reduce manual work or improve finance or operations processes was not always feasible for their organizations. Cost barriers, infeasibility due to IT complexity, and/or a lack of technical resources to deploy and maintain the solution meant that capabilities that would add business value were not available. The VP of commerce operations at a technology manufacturing organization explained: "We would often just not do something because even though it would add value, it was much too difficult to complete the work within the environment of ERP

"We had a product for bookkeeping, we had a product for inventory management, [and] we had a product for analytics. We had all these systems that were disparate and only sometimes compatible with one another, but [with] separate vendors, separate environments, [and] separate technologies that all marched to the beat of their own drum."

VP of commerce operations, technology manufacturing tools that we already had. We were constantly making those trade-offs."

Interviewees noted that customizations and integrations were also very difficult to manage within their legacy ERP environments without significant internal or third-party effort. The founder of a financial services firm explained the inflexibility of their organization's previous ERP tools: "We're primarily a bookkeeping firm, and we couldn't work horizontally across our customers. That's quite hard because we'd have to log in and log out [and] then log in and log out for each customer each time."

- **Scalability.** Each interviewee told Forrester that as their organization continues to grow, its ERP deployment needs to grow with it to meet the increasing demands of the business. Given the disparate and largely on-premises state of the organizations' ERP deployments, scaling as-is to meet the demand would result in technical debt, increased costs, and increased personnel requirements to maintain these deployments. Furthermore, the demand for manual reconciliation work on the part of finance and operations staff would also increase.
- **Decision-making on incomplete, static information.** Interviewees told Forrester that decision-makers at their organizations were often forced to make business decisions using incomplete and out-of-date information, which is a symptom of inconsistent interoperability and information sharing between ERP tools. This inherently led to suboptimal decision-making in the areas of supply-chain forecasting and budgeting.

INVESTMENT OBJECTIVES

The interviewees' organizations searched for a solution that could:

- Scale cost-effectively with the current demands of the organization.
- Be deployable in the cloud to support organizational cloud-transformation initiatives.
- Enable real-time visibility into key information across several workstreams.
- Reduce the burden of manual reconciliation effort on finance and operations staff.

> **"When we did a TCO analysis on [Business Central and factored] in our customizations, the value was really good. It came in as one of the most cost-effective solutions for us."**
>
> *VP of commerce operations, technology manufacturing*

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 five interviewees, 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 $15 million organization with 150 employees. It primarily operates within the region of its headquarters, but it has customers and suppliers around the globe.

Prior to deploying Microsoft Dynamics 365 Business Central, the composite organization maintained a homegrown collection of on-premises ERP solutions that it implemented over the years for specific functionality. As a result, there was some redundancy in capabilities from one tool to the next that resulted in IT complexity and increased costs.

Deployment characteristics. In line with organizational cloud-transformation mandates, the composite organization deploys Business Central in the cloud supported by a Microsoft partner and internal staff. It also begins a phased retirement of its legacy ERP tools, and it retires 75% of these costs by the third year of the Business Central deployment. The organization has 15 staff members who are responsible for finance and supply-chain operations decisions, and they are the primary users of Business Central.

Key Assumptions

- **$15 million revenue**
- **150 employees**
- **15 Dynamics 365 Business Central daily users**

Analysis Of Benefits

Quantified benefit data as applied to the composite

Total Benefits						
Ref.	**Benefit**	**Year 1**	**Year 2**	**Year 3**	**Total**	**Present Value**
Atr	Improvement to staff productivity	$46,778	$46,778	$46,778	$140,333	$116,329
Btr	Reduction in required hires	$98,550	$98,550	$98,550	$295,650	$245,079
Ctr	Avoided third-party fees	$28,800	$28,800	$28,800	$86,400	$71,621
Dtr	Avoided costs of previous solutions and support	$14,008	$20,758	$27,508	$62,273	$50,556
	Total benefits (risk-adjusted)	$188,135	$194,885	$201,635	$584,655	$483,585

IMPROVEMENT TO STAFF PRODUCTIVITY

Evidence and data. Interviewees said deploying Business Central allowed their organizations' finance and operations staff to reduce the amount of time they spent on manual reporting and information reconciliation while also providing improved visibility and tools to accelerate and improve the quality of decision-making. Automating tasks within these finance and operations processes yielded quantifiable productivity savings for the organizations' staff.

- The VP of commerce operations at a technology manufacturer noted significant productivity savings for both their organization's finance and operations staff in their daily workflows. They said the firm's finance staff members each save an estimated 15 hours per month through automation of finance reporting, while value-added tax (VAT) reporting saves another 20 hours per month. Operations staff save an estimated 30% of their time with automation of previously manual processes through native connections to online stores, order evaluation, and fulfillment.

"We used to manually match up deliveries with supplier invoices. We didn't have that integration, so it was a manual handling of all supplier invoices that consumed hours per week. In Business Central, we don't have to go and look for them anywhere else."

Manager of finance and integrations, healthcare

- The manager of finance and integrations at a healthcare organization described the hundreds of manual invoices their firm needed to complete prior to its deployment of Business Central. The interviewee said that once deployed, the organization could automate these with "the press of a button." The same interviewee also reported that Business Central helped reduce the amount of time their firm required to generate a sales quote by 75%.

- The manager of data integration at a biotech organization said that using the supply-chain optimization functionality on Business Central, their company eliminated the need for manual product labelling when preparing orders for the market. They noted that automating label creation through Business Central not only saves the organization's personnel an estimated 20 hours per week, but also that "there is virtually no chance for error now."
- The CEO of an IT services organization said their firm automated recurring invoices on Business Central, which saves staff tens of hours per month. The organization also automated processes that salespeople had historically been responsible for, which gave them more time to sell.

Modeling and assumptions. For the composite organization, Forrester makes the following assumptions:

- Eight finance users save 15 hours per month through automation of finance tasks that previously required manual work.
- Seven supply-chain staff members save 30 hours per month through automation of supply-chain tasks.
- The average hourly rate for a finance or operations staff member is $42.
- The composite has a 75% productivity recapture because not all reclaimed hours are dedicated to value-added work.

Risks. This benefit will vary among organizations based on:

- The skill and effectiveness of the organization's finance and/or operations staff.
- The functionality gap between Business Central and the organization's legacy ERP solution(s) relates to the possibility of automating manual tasks.
- • An organization's industry as it affects its ability to customize Business Central for industry-specific functionality.

Results. To account for these risks, Forrester adjusted this benefit downward by 10%, yielding a three-year, risk-adjusted total PV (discounted at 10%) of $116,300.

"Automated invoicing on [Business Central] will free up capacity for sales, and [it] will help us to grow faster."

CEO, IT services

Improvement To Staff Productivity					
Ref.	**Metric**	**Source**	**Year 1**	**Year 2**	**Year 3**
A1	Finance users	Composite	8	8	8
A2	Time savings on manual reporting per month (hours)	Interviews	15	15	15
A3	Percentage of working week reclaimed (rounded)	A2/160	9%	9%	9%
A4	Hourly rate of a finance FTE (rounded)	TEI standard	$42	$42	$42
A5	**Annual time savings due to automated reporting with Business Central**	**A1*A2*A4*12 months**	**$60,480**	**$60,480**	**$60,480**
A6	Operations users	Composite	7	7	7
A7	Time savings on operations activities per month (hours)	Interviews	30	30	30
A8	Percentage of working week reclaimed (rounded)	A7/160	18%	18%	18%
A9	Hourly rate of an operations FTE (rounded)	TEI standard	$42	$42	$42
A10	**Annual time savings due to operations task automation with Business Central**	**A6*A7*A9*12 months**	**$8,820**	**$8,820**	**$8,820**
A11	Subtotal: Total value of time savings for finance and operations users	A5+A10	$69,300	$69,300	$69,300
A12	Productivity recapture	TEI standard	75%	75%	75%
At	Improvement to staff productivity	A11*A12	$51,975	$51,975	$51,975
	Risk adjustment	↓10%			
Atr	Improvement to staff productivity (risk-adjusted)		$46,778	$46,778	$46,778
	Three-year total: $140,333		**Three-year present value: $116,329**		

REDUCTION IN REQUIRED HIRES

Evidence and data. Interviewees told Forrester that as their organizations continued to grow, the finance and operations responsibilities also grew, which necessitates additional hires. Furthermore, these hires require specialized preexisting expertise or significant training on the organizations' legacy ERP tools.

Interviewees said Business Central enables finance and operations staff to operate more effectively in the present while offsetting subsequent hires required as the business grows.

- The CEO of an IT services organization told Forrester they would need to hire one additional headcount to manage their firm's finance tasks before using Business Central.
- The founder of a financial services firm said Business Central completely transformed the way their organization works with its clients, which allowed the firm to take on a significant number of new clients. The interviewee estimated that

Business Central allowed their organization to avoid 12 additional hires, which is nearly double its current capacity.

Modeling and assumptions. For the financial model, Forrester makes the following assumptions:

- Without Business Central, the composite organization would be required to add 1.5 FTEs (full-time and part-time) in finance and operations to meet the demands of the business amid growth. It avoids these hires with Business Central.
- The average annual rate for a finance or operations hire is $73,000.

Risks. This benefit will vary among organizations based on:

- The rate of growth at the organization as it relates to the need for additional finance and/or operations capacity.
- The functionality gap between Business Central and the organization's legacy ERP solution(s) relates to the potential for capacity reduction once implemented.

Results. To account for these risks, Forrester adjusted this benefit downward by 10%, yielding a three-year, risk-adjusted total PV of $245,100.

Reduction In Required Hires

Ref.	Metric	Source	Year 1	Year 2	Year 3
B1	Total finance and operations users	Composite	15	15	15
B2	Required capacity increase to manage growth	Interviews	10%	10%	10%
B3	Required FTE capacity growth avoidable with Business Central	B1*B2	1.50	1.50	1.50
B4	Annual rate of a finance or operations FTE	TEI standard	$73,000	$73,000	$73,000
Bt	Reduction in required hires	B3*B4	$109,500	$109,500	$109,500
	Risk adjustment	↓10%			
Btr	Reduction in required hires (risk-adjusted)		$98,550	$98,550	$98,550
	Three-year total: $295,650		**Three-year present value: $245,079**		

AVOIDED THIRD-PARTY FEES

Evidence and data. While many interviewees spoke about personnel challenges related to their organizations' legacy ERP environments such as manual labor and required reconciliation between solutions, some noted their organization also incurred external costs. The organizations often paid for external reporting on a monthly or quarterly basis because finance staff were working at capacity, and they also engaged third-party consulting services to work on customizations and integrations amid the complexity of their legacy ERP deployments.

Interviewees said that once Business Central was implemented, their firms eliminated third-party reporting costs while internal IT staff managed integration and customization work.

- The manager of data integration at a biotech organization said that after implementing Business Central, their firm eliminated 60% of the external consulting costs required for its ERP deployment because internal IT staff gained the ability to manage integrations and general management independently. The interviewee specified that Microsoft's product documentation and support for Business Central in particular are helpful for their organization's internal staff.
- The CEO of an IT services organization said that when their firm's ERP deployment required functionality upgrades, it required the services of external consultants. But they said with Business Central, upgrades can be deployed internally for no additional cost, which saves the company thousands of dollars annually.
- The manager of finance and integrations at a healthcare organization estimated their firm reduced its overall total cost of ownership (TCO) of its ERP solution after implementing Business Central and that external consulting and reporting fees comprise a large part of these avoided costs.

Modeling and assumptions. For the composite organization, Forrester makes the following assumptions:

- The composite previously paid $5,000 per quarter for external report preparation. It eliminates this cost once Business Central is implemented.
- The composite avoids 40 consulting hours annually (10 per quarter) at a rate of $300 per hour.

Risks. This benefit will vary among organizations based on:

- The organization's current spending on third-party reporting and consulting.
- The skills of the organization's personnel and the firm's capacity to manage historically third-party activities internally once Business Central is implemented.
- Industry- or organization-specific customizations or integrations that still may require third-party consulting.

Results. To account for these risks, Forrester adjusted this benefit downward by 10%, yielding a three-year, risk-adjusted total PV of nearly $71,600.

> **"We used to pay much more in consultancy fees to help build reports than we [do] today. It's quite a big difference."**
>
> *Manager of finance and integrations, healthcare*

Avoided Third-Party Fees					
Ref.	**Metric**	**Source**	**Year 1**	**Year 2**	**Year 3**
C1	Cost per customized report	Interviews	$5,000	$5,000	$5,000
C2	Reports per year	Composite	4	4	4
C3	Subtotal: Avoided third-party reporting fees	C1*C2	$20,000	$20,000	$20,000
C4	Avoided consulting time per quarter for ongoing support, upgrades, and strategy (hours)	Interviews	10	10	10
C5	Annual avoided consulting time (hours)	C4*4	40	40	40
C6	Cost per consulting hour	Assumption	$300	$300	$300
C7	Subtotal: Avoided consulting costs	C5*C6	$12,000	$12,000	$12,000
Ct	Avoided third-party fees	C3+C7	$32,000	$32,000	$32,000
	Risk adjustment	↓10%			
Ctr	Avoided third-party fees (risk-adjusted)		$28,800	$28,800	$28,800
	Three-year total: $86,400		**Three-year present value: $71,621**		

AVOIDED COSTS OF PREVIOUS SOLUTIONS AND SUPPORT

Evidence and data. Interviewees told Forrester their organizations paid excessive costs associated with maintaining their legacy ERP solutions. The organizations were paying several vendors for solutions that offered redundant functionality across the ERP stacks while incurring the costs typical to on-premises solutions including infrastructure, maintenance personnel costs, and upgrade fees. Interviewees said that by consolidating ERP functionality on Business Central, their organizations were able to shed some of these costs on deployment and most of the costs post-deployment.

- The manager of finance and integrations at a healthcare organization told Forrester the total cost of their firm's Business Central deployment was around 25% of the cost of its previous ERP solutions. The organization avoids license fees, on-premises infrastructure costs, and IT maintenance costs.
- The manager of data integration at a biotech organization noted that their firm retired servers from its legacy ERP deployment once deploying Business Central in the cloud and that this avoided hardware and personnel maintenance costs.

> **"We don't like on-premises systems. They just present problems most of the time."**
>
> *Founder, financial services*

- The founder of a financial services firm said deploying Business Central in the cloud allowed their organization to offset the cost of its previous ERP solution entirely despite scaling Business Central to serve nearly twice as many customers as the previous solutions did.

Modeling and assumptions. For the composite organization, Forrester makes the following assumptions:

- The annual cost of the organization's legacy ERP solutions was $30,000, including license fees and infrastructure.
- With Business Central, the composite avoids these costs at the rate of 25% per year, with 75% eliminated by year 3.
- The composite previously dedicated 16 hours per month among two IT personnel to basic ERP solution maintenance work. It avoids this with Business Central.
- The average hourly rate of an IT FTE is $42.

Risks. This benefit will vary among organizations based on:

- The scope of the organization's previously deployed stack of ERP solutions and its related infrastructure.
- Contract constraints as they relate to the organization's ability to avoid license fees made redundant by Business Central.
- The skill and capacity of the organization's IT personnel who support the ERP solution(s).

Results. To account for these risks, Forrester adjusted this benefit downward by 10%, yielding a three-year, risk-adjusted total PV of over $50,600.

Avoided Costs Of Previous Solutions And Support

Ref.	Metric	Source	Year 1	Year 2	Year 3
D1	Cost of legacy tool(s)	Interviews	$30,000	$30,000	$30,000
D2	Percentage of total spend retired	Composite	25%	50%	75%
D3	Subtotal: Total retired spend	D1*D2	$7,500	$15,000	$22,500
D4	IT personnel who supported and developed previous tool(s)	Composite	2	2	2
D5	Time per month per IT FTE spent on support and development (hours)	Interviews	8	8	8
D6	Hourly rate of an IT FTE (rounded)	TEI standard	$42	$42	$42
D7	Subtotal: Cost of support and development for previous tool(s)	D4*D5*D6*12 months	$8,064	$8,064	$8,064
Dt	Avoided costs of previous solutions and support	D3+D7	$15,564	$23,064	$30,564
	Risk adjustment	↓10%			
Dtr	Avoided costs of previous solutions and support (risk-adjusted)		$14,008	$20,758	$27,508
	Three-year total: $62,273		**Three-year present value: $50,556**		

UNQUANTIFIED BENEFITS

Interviewees mentioned the following additional benefits that their organizations experienced but were not quantified for this report:

- **Net profit from Business Central-enabled revenue.** Several interviewees detailed ways in which Business Central enabled their organizations to undertake projects or onboard customers that directly led to additional revenue and profit. Given the variability of this benefit from one organization to the next, this benefit was detailed for the composite organization below but was not quantified in the top-level analysis for this report.
  - The VP of commerce at a technology manufacturer said their organization gained the ability to undertake projects to connect additional sales channels (e.g., online stores, etc.) with Business Central and that this was not possible before given the manual labor required. The interviewee estimated their organization saw more than a $2 million revenue increase over a 12-month window from these channels alone, and they said the firm plans to integrate additional marketplaces native to other regions.
  - The founder of a financial services firm that primarily provides accounting services for its clients said their company was able to leverage horizontal visibility and automation across its customer base on Business Central. This allowed it to take on additional customers who were previously not manageable given the manual work required. At the time of the interview, the organization had nearly doubled its customer base since deploying Business Central. The interviewee explained: "When we work with Business Central, we can work with other systems and work with many customers at the same time and manage multiple similar tasks for many companies. So, when we do payments, when we do reporting, [and] when we do our record solutions, we do it for several companies instead of just [for] one… . We're a team of 12 managing over 300 customers."

    The interviewee also noted that the capabilities of Business Central are differentiators that have helped their firm win new business: "We think that many customers have come to us because we have Business Central. And it's a big pitch for us when we're selling — the capabilities we have with Business Central. The sky is the limit when we talk with our new clients."
  - To model this benefit for the composite organization, Forrester assumes the composite generates $15 million in annual revenue, has an 8% operating margin, and sees a 10% uplift to revenue from Business Central-enabled activities (e.g., integrations to additional sales channels or online stores, new customers, etc.) in year 1, increasing to 20% by year 3 as new opportunities are realized.
  - This benefit will vary among organizations based on the organization's industry and business as it relates to its ability to undertake revenue-generating projects with Business Central and the skill and capacity of the organization's personnel who support these revenue-generating projects.

- To account for these risks, Forrester adjusted this benefit downward by 20%, yielding a three-year, risk-adjusted total PV of nearly $239,000. If this benefit was applied to the top-level TEI analysis, the composite organization would experience benefits of $834,000 over three years versus costs of $178,000, adding up to a net present value (NPV) of $656,000 and an ROI of 369%.

"The automation of sales-channel management [with Business Central] has allowed us to take on more sales channels. We can pursue business relationships with these channels we didn't pursue before because they weren't going to do the revenue volume that made sense when everything was managed by a person."

VP of commerce operations, technology manufacturing

Net Profit From Business Central-Enabled Revenue

Ref.	Metric	Source	Year 1	Year 2	Year 3
R1	Revenue	Composite	$15,000,000	$15,000,000	$15,000,000
R2	Percent of revenue generated through new sales channels unlocked with Business Central	Interviews	10.00%	15.00%	20.00%
R3	Operating margin	Assumption	8%	8%	8%
Rt	Net profit from Business Central-enabled revenue	G1*G2*G3	$120,000	$180,000	$240,000
	Risk adjustment	↓20%			
Rtr	Net profit from Business Central-enabled revenue (risk-adjusted)		$96,000	$144,000	$192,000
	Three-year total: $432,000		**Three-year present value: $350,533**		

- **Improved business outcomes from more informed decision-making.** Interviewees told Forrester that day-to-day decision-making in their organizations' finance and operations functions improved with Business Central due to visibility into real-time information. For instance, the manager of finance and integrations at a biotech organization told Forrester that production planning for their firm's manufacturing processes is now fine-tuned and optimized on Business Central, which leads to better material utilization, fewer stockouts, and higher profitability. The interviewee explained: "We have so many different products. We have products that sell very well, and then we have some niche products that have a limited number of specific customers. You could certainly say our production team can plan better around which antibodies need to be produced at any given time."

- **Improved employee experience.** With Business Central, finance and operations personnel are less burdened by manual effort and reconciliation tasks mandated by a disparate set of ERP solutions. Interviewees noted that is a quality-of-life improvement for employees.
- **Works with Microsoft solutions.** Business Central works natively with other Microsoft solutions, which drives additional value from these solutions. The founder of a financial services company lauded the seamless interactions between Business Central, Excel, and Power BI when reporting for their firm's customers. They also noted these integrations make Business Central more intuitive and that it's easy to train staff members who are already familiar with Microsoft solutions.

"In biotech, it's extremely important that we see what components are currently available and what products we can make with these. If we have customers doing clinical studies, they need everything from the same batch. [Business Central] helps us understand how much we can produce with what we have now, it helps us with communication with our customers, and it informs our production teams."

Manager of data integration, biotech

FLEXIBILITY

The value of flexibility is unique to each customer. There are multiple scenarios in which a customer might implement Dynamics 365 Business Central and later realize additional uses and business opportunities, including:

- **Scalability in the cloud.** Nearly every interviewee said their organization now has the ability to scale users and capabilities for their current business demands. Amid periods of growth, they said their organizations have been able to provision their ERP resources accordingly on Business Central and save on costs.

Flexibility would also be quantified when evaluated as part of a specific project (described in more detail in Appendix A).

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**
Etr	Subscription fees paid to Microsoft	$0	$20,700	$20,700	$20,700	$62,100	$51,478
Ftr	Implementation, ongoing management, and training personnel costs	$75,038	$20,700	$20,700	$20,700	$137,138	$126,515
	Total costs (risk-adjusted)	$75,038	$41,400	$41,400	$41,400	$199,238	$177,993

SUBSCRIPTION FEES PAID TO MICROSOFT

Evidence and data. Interviewees said their organizations pay Microsoft a subscription fee for their usage of Business Central. Their firms pay license fees on a per-month, per-user, or per-device basis.

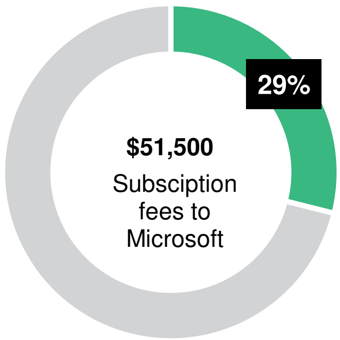
Modeling and assumptions. For the composite organization, Forrester makes the following assumptions:

- The composite has 15 Business Central users.
- The composite pays each user $100 per month.
- Pricing may vary. For more details, contact Microsoft.

Risks. This cost will vary among organizations based on:

- The specific tier of Dynamics 365 Business Central license the organization uses.
- The organization's number of Business Central licenses and/or users.

Results. To account for these risks, Forrester adjusted this cost upward by 15%, yielding a three-year, risk-adjusted total PV (discounted at 10%) of $51,500.



Subscription Fees Paid To Microsoft						
Ref.	**Metric**	**Source**	**Initial**	**Year 1**	**Year 2**	**Year 3**
E1	Total subscribed users	Composite	0	15	15	15
E2	Monthly price per user	Interviews	$0	$100	$100	$100
Et	Subscription fees paid to Microsoft	E1*E2*12 months	$0	$18,000	$18,000	$18,000
	Risk adjustment	↑15%				
Etr	Subscription fees paid to Microsoft (risk-adjusted)		$0	$20,700	$20,700	$20,700
	Three-year total: $62,100			**Three-year present value: $51,478**		

IMPLEMENTATION, ONGOING MANAGEMENT, AND TRAINING PERSONNEL COSTS

Evidence and data. The interviewees described migration experiences for Business Central that averaged four months from concept to implementation, were often staged in phases, and typically leveraged Microsoft partners. While the level of partner support varied, partner involvement in some capacity was consistent among the interviewed organizations.

- The VP of commerce operations at a technology manufacturer said the following about their organization's implementation: "We structured our implementation to roll out in three phases. Phase one was implementation for our North American office, which is where our global HQ is. That was very high-touch with our Microsoft partner. [The partner] really led the implementation and, at the same time, they were teaching us how the system works and preparing us to lead the second phase ourselves. Then, in phase 2, it flipped, and we led the implementation ourselves."

- The CEO of an IT services firm described their organization's required internal implementation effort: "On our side internally, there were eight people involved — most only part-time. But about three [worked on this] full time for a period of months."

Modeling and assumptions. For the composite organization, Forrester makes the following assumptions:

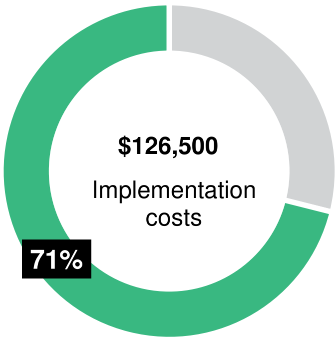
- Two IT and business FTEs spend 25% of their working time over four months on the initial implementation of Business Central.

- A partner fee of $45,000 is realized over the four month duration of the implementation.

- The average annual rate of an IT or business FTE who works on implementation is $90,000.

- Once Business Central is deployed, one IT FTE spends 20% of their time managing and continuing to develop on it during the subsequent years of this analysis.

- Each of the 15 Business Central users undergoes an initial 10 hours of training to maximize their effectiveness on the platform from initial implementation.



Risks. This cost will vary among organizations based on:

- The skill and effectiveness of the personnel or third-party partner that manage the organization's Business Central deployment.
- The organization's change management tendencies as they relate to user training and effectiveness.

Results. To account for these risks, Forrester adjusted this cost upward by 15%, yielding a three-year, risk-adjusted total PV of $126,500.

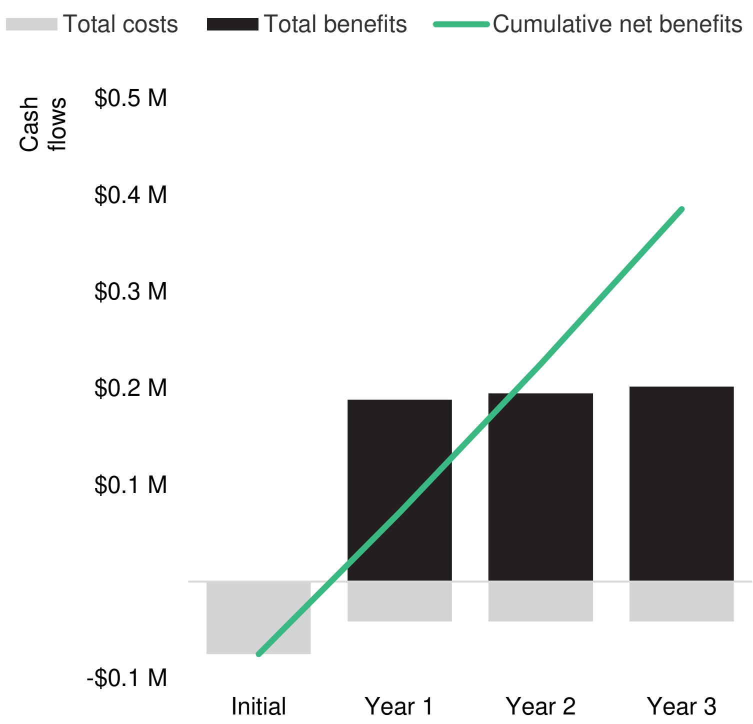
Implementation, Ongoing Management, And Training Personnel Costs

Ref.	Metric	Source	Initial	Year 1	Year 2	Year 3
F1	Personnel required for implementation	Composite	2	0	0	0
F2	Implementation and initial ramping duration (months)	Composite	4	0	0	0
F3	Personnel time spent on implementation	Composite	25%	0%	0%	0%
F4	Average yearly rate of personnel	TEI standard	$90,000	$0	$0	$0
F5	**Total personnel cost for implementation**	F1*F2*F3*F4	$15,000	$0	$0	$0
F6	**Total partner cost for implementation**	Composite	$45,000	$0	$0	$0
F7	Personnel required for ongoing management	Composite	0	1	1	1
F8	Time on task for ongoing management:	Composite	0%	20%	20%	20%
F9	**Total personnel cost for ongoing management**	F4*F7*F8	$0	$18,000	$18,000	$18,000
F10	Total users who require training	Composite	15	0	0	0
F11	Training time per user per year (hours)	Composite	10	0	0	0
F12	Hourly rate of a user who requires training (rounded)	Composite	$35	$0	$0	$0
F13	**Total personnel cost for training**	F10*F11*F12	5,250	0	0	0
Ft	Implementation, ongoing management, and training personnel costs	F5+F6+F9+713	$65,250	$18,000	$18,000	$18,000
	Risk adjustment	↑15%				
Ftr	Implementation, ongoing management, and training personnel costs (risk-adjusted)		$75,038	$20,700	$20,700	$20,700
	Three-year total: $137,138			**Three-year present value: $126,515**		

Financial Summary

CONSOLIDATED THREE-YEAR RISK-ADJUSTED METRICS

Cash Flow Chart (Risk-Adjusted)



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.

Cash Flow Analysis (Risk-Adjusted Estimates)

	Initial	Year 1	Year 2	Year 3	Total	Present Value
Total costs	($75,038)	($41,400)	($41,400)	($41,400)	($199,238)	($177,993)
Total benefits	$0	$188,135	$194,885	$201,635	$584,655	$483,585
Net benefits	($75,038)	$146,735	$153,485	$160,235	$385,418	$305,592
ROI						172%
Payback period (months)						7.0

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 vendors in communicating the value proposition of their products and services to clients. The TEI methodology helps companies demonstrate, justify, and realize the tangible value of IT initiatives to both senior management and other key business stakeholders.

TOTAL ECONOMIC IMPACT APPROACH

Benefits represent the value delivered to the business by the product. The TEI methodology places equal weight on the measure of benefits and the measure of costs, allowing for a full examination of the effect of the technology on the entire organization.

Costs consider all expenses necessary to deliver the proposed value, or benefits, of the product. The cost category within TEI captures incremental costs over the existing environment for ongoing costs associated with the solution.

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

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."

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.

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 PERIOD

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

Appendix B: Endnotes

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