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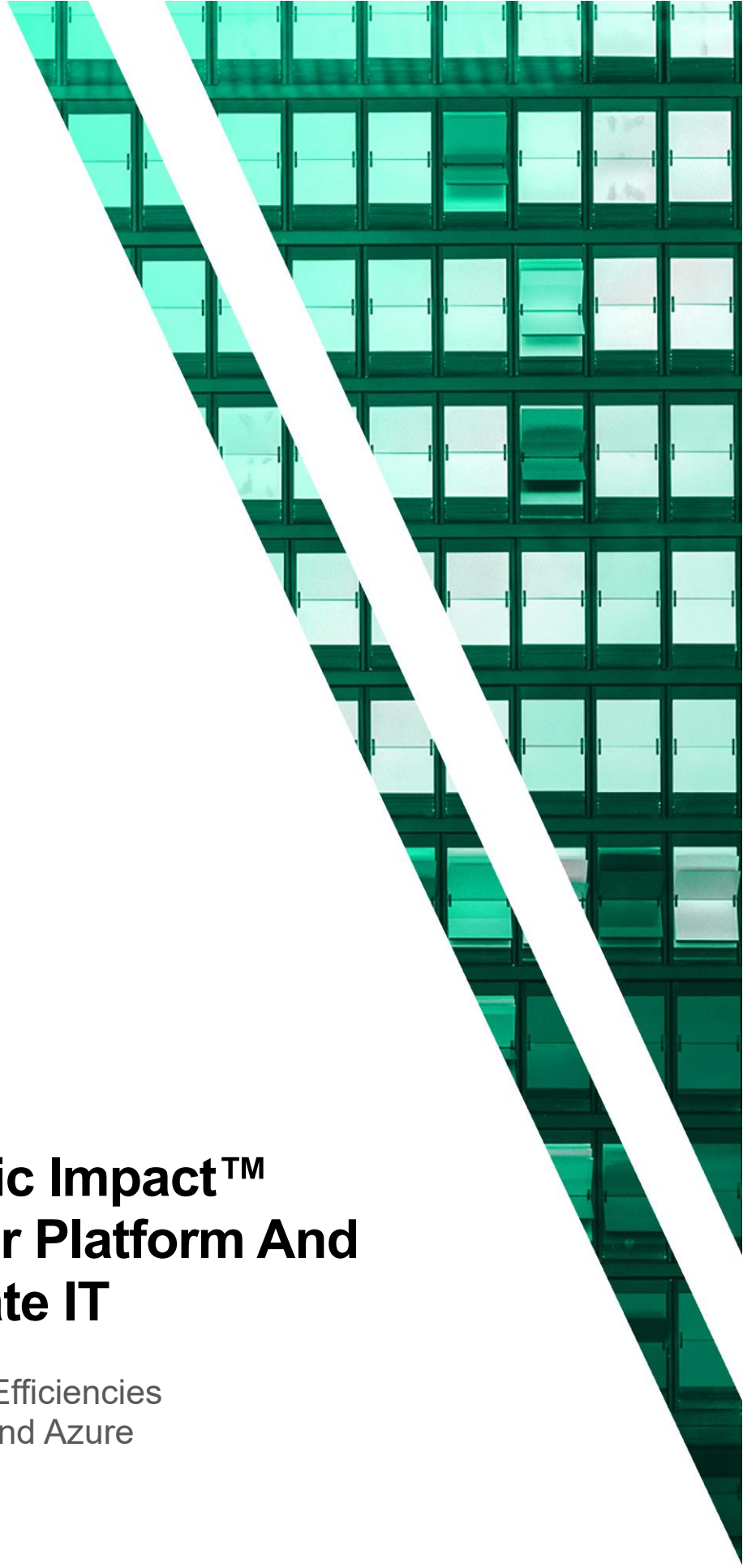

The Total Economic Impact™ Of Microsoft Power Platform And Azure For Corporate IT

Cost Savings And Increased Efficiencies Enabled By Power Platform And Azure

FEBRUARY 2021

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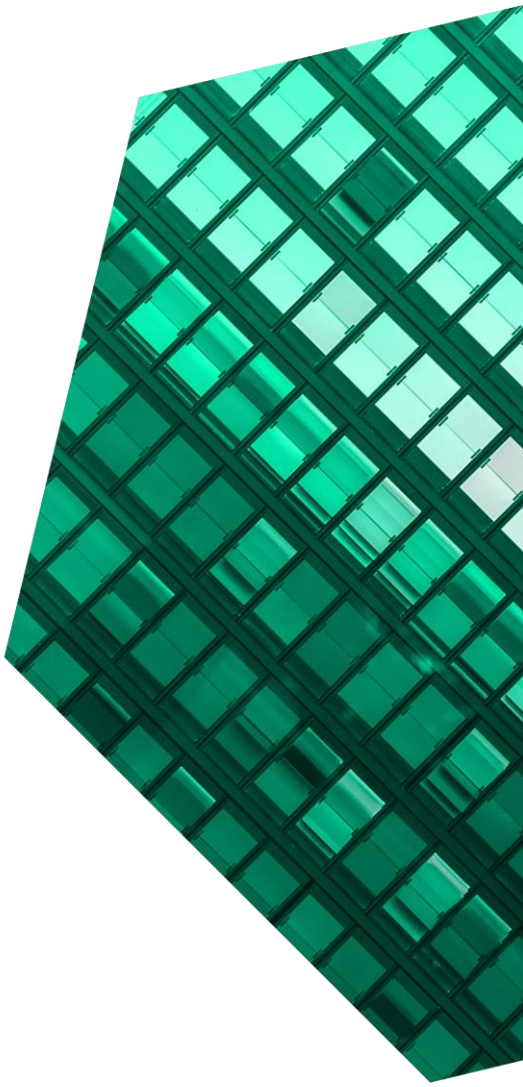


ABOUT FORRESTER CONSULTING

Forrester Consulting provides independent and objective research-based consulting to help leaders succeed in their organizations. For more information, visit forrester.com/consulting.

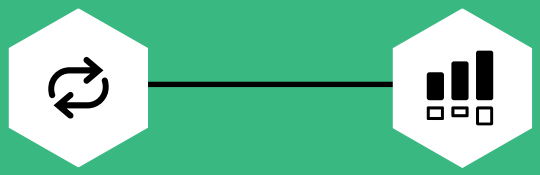
Executive Summary

IT organizations have traditionally considered Microsoft Power Platform as a low-code/no-code solution for business users to create their own applications, workflows, and insights. However, corporate IT departments also benefit from using Power Platform, often in conjunction with Microsoft Azure, to reduce their total IT spend and to increase development activity efficiencies. Increased efficiencies translate into higher project delivery volumes, which can deliver business benefits across the organization.

Microsoft commissioned Forrester Consulting to conduct a Total Economic Impact™ (TEI) study and examine the potential return on investment (ROI) enterprises may realize from corporate IT departments using the Power Platform toolset in conjunction with Azure. Power Platform consists of Power Apps, Power Automate, Power BI, and Power Virtual Agents. The purpose of this study is to provide readers with a framework to evaluate the potential financial impact of Power Platform and Azure on their organizations. Using this solution, corporate IT developers and DevOps teams are more efficient, which means they can take on more projects without adding headcount. Additionally, doing more in-house development using these tools reduces third-party license costs for business applications and development tools as well as professional services charges.

To better understand the benefits, costs, and risks associated with this investment, Forrester interviewed eight decision-makers from five organizations with experience making Power Platform and Azure available to their professional developer (ProDev) and DevOps teams — often in conjunction with GitHub. For the purposes of this study, Forrester aggregated the experiences of the interviewees and combined the results into a single composite organization. The composite organization is a global manufacturer with 10,000 employees, 25 professional developers in corporate IT, and a three-person DevOps team.

KEY STATISTICS



Return on investment (ROI)
94%

Net present value (NPV)
$11.43M

The interviewees said that prior to adding Power Platform and Azure to their organizations' development toolsets, they used only traditional full-stack development tools for all aspects of development and integration. However, this meant that many efforts such as front-end development took longer than necessary to complete. These limitations led to long backlogs for development requests, buying expensive vendor solutions that often provided more functionality than needed, and outsourcing development to system integrators. Additionally, internal or external IT resources never completed many small project requests (the long tail).

After investing in Power Platform and Azure, the organizations were able to complete more development projects in-house, improve DevOps, and reduce external expenditures. This included activities such as code development and integration, code check-in/checkout, and code review. These IT improvements all led to better business outcomes such as faster time-to-market and enhanced

business intelligence. This study focuses on the efficiency and cost savings benefits realized by corporate IT.

Reduction in ProDev and DevOps costs

24%

A companion study explores and quantifies the benefits associated with the Power Platform citizen developer story and improved business outcomes.[1] The companion study delivers an additional 502% ROI and a $25.92 million NPV to the same composite organization.

KEY FINDINGS

Quantified benefits. Risk-adjusted present value (PV) quantified benefits include:

- **ProDev efficiency increases over time, averaging 62% over three years.** Using the Power Platform solutions made certain development activities such as front-end development and automating workflows much faster than when completed using traditional development tools. Additionally, using the plethora of services within Azure increased code reuse and automation, which saved developers time. GitHub can also reduce the time for activities such as code review, and it can further increase code reuse. For the composite organization, this means the ProDev team can deliver much more value to the organization without doubling the team size by Year 3. This allows the organization to avoid additional labor costs of $13.5 million over three years.
- **DevOps became more efficient and did not need to grow to support a larger development team.** More development work being completed using Power Platform and Azure also benefited DevOps teams. The composite organization's DevOps team is able to maintain its original team size and still support all the additional development taking place. GitHub and Azure DevOps can be especially useful for a DevOps team to provide more support without increasing manual effort. The total avoided increased labor costs over three years is $1.7 million.
- **More in-house development resulted in less expenditure on third-party solutions.** Prior to using Power Platform and Azure for corporate IT development, the interviewees' organizations had large backlogs of greenlit projects. This often led decision-makers to purchase expensive package solutions that exceeded functionality requirements because they could be implemented more quickly. Additionally, system integrators were often used on projects that could be completed in-house, but decision-makers were not willing to wait. For the composite organization, the total reduction in external spend over three years is $8.5 million because corporate IT can now better meet the organization's needs.

> **"Adopting Power Platform is part of a digital transformation initiative. We want to automate manual processes and retire old systems that are no longer supportable."**
>
> *Manager, petrochemical*

Unquantified benefits. Benefits that are not quantified for this study include:

- **More ProDev activity delivered additional business benefits.** Corporate IT could be more responsive to business requests, and it delivered more projects faster. As a result, the organizations benefited in many ways, such as increased revenues and higher employee productivity. These benefits are not included in this study because the focus is on corporate IT hard-cost savings. The companion study that

looks at Power Platform and citizen developers quantifies business outcome benefits.

- **Business intelligence was integrated into more applications and functions.** Power BI, many Azure services, and Microsoft Dataverse (formerly known as Common Data Service or CDS) enabled IT organizations to embed better business intelligence and analytics into business applications and processes. In turn, this saved business users time and empowered them to make better decisions.
- **Security and compliance became stronger.** Power Platform is integrated into the Microsoft security stack as well as with Microsoft 365. This made it easier to include the necessary security into all development initiatives. Microsoft has out-of-the-box compliance for many regulations, and that makes compliance easier and lowers the time required to report on the system.

Costs. Risk-adjusted PV costs include:

- **Power Platform and Azure require internal IT costs of $11.5 million.** These costs represent the level of IT ProDev and DevOps effort required when using Power Platform and Azure with GitHub. For the composite organization, subtracting this from the developer and DevOps efficiency benefits detailed above results in net benefit to the IT organization of $3.6 million or 24% over three years.
- **Incremental licenses not included in existing Microsoft 365 or Dynamics 365 licenses as well as incremental Azure consumption cost about $614,000 over three years.** Most of the capabilities within Power Platform can be included in Microsoft 365 and Dynamics 365, depending on the version being used. Solutions not included in the composite organization's Microsoft 365 E5 licenses include Power Apps premium connectors, enterprisewide Power Automate flows, unattended robotic process automation (RPA), and Power Virtual Agents (PVAs). Incremental Azure consumption is estimated to be 10% of the incremental license costs.

The interviews and financial analysis found that a composite organization experiences benefits of $23.61 million over three years versus costs of $12.19 million, adding up to a net present value (NPV) of $11.43 million and an ROI of 94%.

> **"We use Power Platform to complement the existing ProDev development lifecycle tools. This shortens development time and lets [developers] focus on more complex back-end integrations. We are moving towards 'fusion teams' where citizen and professional developers come together."**
>
> — Digital transformation and innovation manager, field services

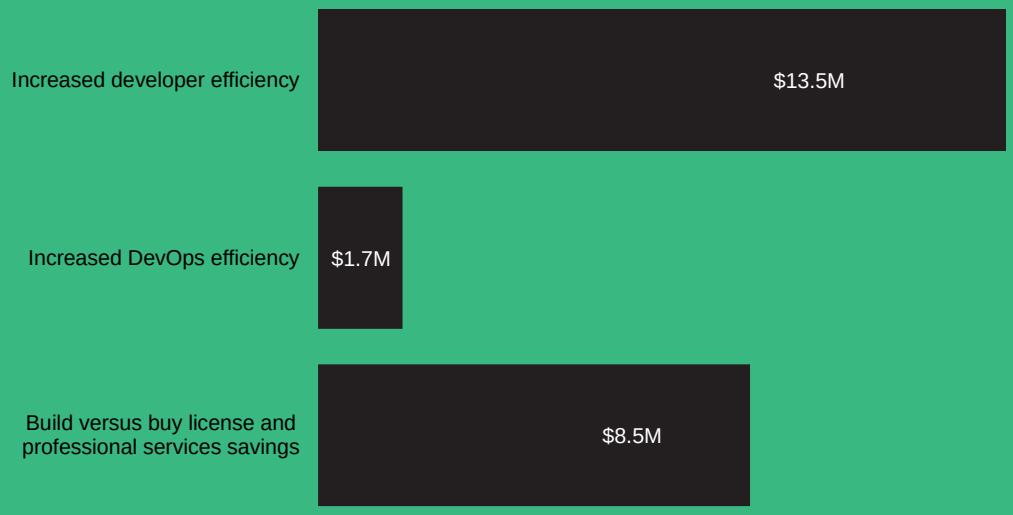
ROI
94%

BENEFITS PV
$23.61M

NPV
$11.43M

PAYBACK
<6 months

Benefits (Three-Year)



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 Power Platform and Azure for corporate IT development.

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 Power Platform and Azure can have on an IT organization.

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 report to determine the appropriateness of an investment in Power Platform and Azure.

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 Power Platform And Azure Customer Journey

Drivers leading to the Power Platform and Azure investment for corporate IT development initiatives

Interviewed Organizations

Industry	Region	Interviewee	Employees
Beverage distributor	North America	Enterprise business system manager Director of digital technology	1,600
Healthcare	Asia Pacific	Head of business applications	1,400
Beverage distributor	North America	Director of commercial capabilities Analyst Data and information manager	10,000
Petrochemical	North America	Manager, enterprise architecture and integration	1,300
Field services	Global	Digital transformation and innovation manager	100,000

KEY CHALLENGES

Interviewees said their organizations previously executed all of their development using traditional, full-stack tools. This limited their ability to streamline and modernize ProDev and DevOps activities.

The interviewees' organizations struggled with common challenges, including:

- **Delivering all the projects the business was requesting.** The composite organization is in the midst of a digital transformation program. This increases the number and size of IT project requests coming from the business organization. Development tool and process bottlenecks mean that the IT organization cannot keep up with all of the requests, and there is not adequate budget to hire more developers or outsource the work.
- **Managing incumbent systems.** Many of the systems the interviewees' organizations developed in-house using traditional development tools and methods were becoming very costly to maintain and to update. This led to a strong desire to modernize them. Additionally, there were many requested changes to ERP-based processes that would have been too complex and costly to undertake if adapting code and processes contained within the ERP system instead of creating a wrapper with Power Platform.

"We looked at making changes to the HR pieces in our ERP [enterprise resource planning] system, and we decided that it would be too expensive. Instead, we used Power Platform to create automated workflows that pull information out of the ERP to set up new users with all of the necessary application permissions and to allow them to request other resources such as company credit cards and phones."

Enterprise business systems manager, beverage distribution

- **Getting maximum value out of prior investments in Microsoft 365 and Dynamics 365.** The interviewees said their organizations were already using Microsoft 365 and often Dynamics 365 prior to corporate IT fully adopting Power Platform. Realizing the value from these solutions can be optimized by extending the capabilities and more fully integrating them into business processes using Power Platform. This is especially true when organizations use Microsoft Teams as the central collaboration platform.

> **"We build PowerApps into our [Microsoft] Teams channels. We also feed in Power BI reports. Centralizing everything in Teams creates a lot of value."**
>
> *Power platform developer and principal analyst, telecommunications*

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' companies, and it is used to present the aggregate financial analysis in the next section.

The composite organization is a global manufacturing and distribution company. It has 10,000 employees and, for the sake of simplicity, this is held constant for the duration of this study. The IT organization has 25 professional developers at the start of the study as part of a centralized corporate IT development function, and three people make up the DevOps team. The IT organization makes extensive use of Azure's platform services.

Prior to formally adopting Power Platform for corporate IT, decision-makers deployed Microsoft 365 across the organization, and all users collaborated using Teams. The knowledge workers using Power Platform have E5 licenses, and first-line workers requiring Power Platform are on F3 licenses. These licenses provide most of the features in Power Platform including the use of Power Apps and Power Automate to extend the capabilities of Microsoft 365 as well as access to Power BI.

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	Increased developer efficiency	$4,590,000	$5,130,000	$6,750,000	$16,470,000	$13,483,772
Btr	Increased DevOps efficiency	$540,000	$675,000	$810,000	$2,025,000	$1,657,325
Ctr	Build versus buy license and professional services savings	$1,593,750	$3,187,500	$5,843,750	$10,625,000	$8,473,657
	Total benefits (risk-adjusted)	$6,723,750	$8,992,500	$13,403,750	$29,120,000	$23,614,754

INCREASED DEVELOPER EFFICIENCY

Companies are adding Power Platform and the services within Azure to the existing toolkit that professional developers have at their disposal. These new tools make certain areas such as front-end development much more efficient. They also improve code reuse and give developers off-the-shelf components that can be easily deployed.

These improvements mean that developers can generate more and better code per hour worked. Companies are typically not reducing their development team sizes because of these gains; they are increasing the number of projects and value they deliver to the business.

Evidence and data. Interviewees shared many examples of how professional development teams are more efficient.

- A digital transformation and innovation manager in the field services industry said: “I have 100 developers who will delivery approximately 120 projects this year. Without Power Platform and Azure, we would have to add at least 30 more developers.”
- A manager with a petrochemical organization said: “Development costs are going down. It no longer costs $300,000 to $500,000 to get a solution to the business. Instead, we do something like this for $100,000. We are seeing exponential cost avoidance.”
- An enterprise business system manager with a beverage distributor said, “Output per dollar spent has increased.”
- A head of business applications with a healthcare organization said: “We currently have seven developers, and we plan to add another seven over the next two years to deliver the growing project pipeline. If we weren’t using Power Platform, we would have to add 14 developers to handle the increased project load.”
- A data and information manager with a beverage distributor said: “We would probably have to double the size of the development team if we weren’t using Power Platform and Azure. A big contributor to the time savings is the [Microsoft] SQL Server connector since we don’t have to rewrite that for every project we do.”
- The digital transformation and innovation manager in the field services industry said: “When developers are working on a solution, we attempt to inject low code into it so they can focus on the more complex back-end pieces. A typical project that used to require three weeks of front-end work can now be done in one.”

- The same interviewee said: “We built our own API marketplace using Azure API Management. It streamlines how we fetch data across legacy systems, and it saves developers time.”

Modeling and assumptions. For the financial analysis, Forrester made the following assumptions based on the above examples:

- The composite organization has a 25-person professional development team that begins to use Power Platform and various development services within Azure. The team sees increasing efficiency levels as it makes more use of Power Platform and Azure over the life of the study. By Year 3, the team delivers twice as much output per hour worked.
- The larger team size (A5) is what would be required to complete the same amount of work without Power Platform and Azure.
- Subtracting the internal IT costs (Dtr) from this (Atr) and the increased DevOps efficiency benefit (Btr) results in the net savings to the composite organization of $3.6 million or 24%.

Risks. Some factors that could result in this benefit being lower than interviewees reported include:

- The IT organization already making use of other low-code/no-code development solutions.
- Less use of Azure.
- Having spare capacity on existing teams.

To account for these risks, Forrester adjusted this benefit downward by 10%, yielding a three-year, risk-adjusted total PV (discounted at 10%) of $13.5 million.

“We don’t see barriers anymore. When we are presented with a problem, we know that we have the tools and platform to solve it. We no longer have long delays or the need to outsource development. We are a technology department that can quickly deliver end-to-end solutions.”

Enterprise business systems manager, beverage distribution

Increased Developer Efficiency

Ref.	Metric	Calculation	Year 1	Year 2	Year 3
A1	Number of employees	Composite	10,000	10,000	10,000
A2	Baseline developer headcount	A1/40*10%	25	25	25
A3	Efficiency gain	Interviews	35%	50%	100%
A4	Number of additional developers not required (value rounded up)	A2*A3	9.0	13.0	25.0
A5	Increased developer team required without Power Platform	A2+A4	34	38	50
At	Increased developer efficiency (fully burdened cost)	A5*$150,000	$5,100,000	$5,700,000	$7,500,000
	Risk adjustment	↓10%			
Atr	Increased developer efficiency (risk-adjusted)		$4,590,000	$5,130,000	$6,750,000
	Three-year total: $16,470,000		**Three-year present value: $13,483,772**		

INCREASED DEVOPS EFFICIENCY

DevOps teams are more efficient because of Power Platform and Azure, and organizations using GitHub also benefit from those integrations. Improved activities include code reviews, code management and continuous integration, continuous delivery (CI/CD). DevOps teams can do more without expanding team size in two ways. By keeping the development team smaller as in the above benefit, the DevOps team does not need to grow to support more users. Also, Power Platform, Azure, and GitHub make DevOps easier and more efficient regardless of team size.

Evidence and data. Interviewees shared many examples of how DevOps teams are more efficient:

- A director of digital technology with a beverage distributor said: “Our DevOps function was rolled out as part of the IT transformation built around Power Platform. It consists of one-third of an FTE. Previously, we were spending $50,000 for just one app to be supported by a third party. Now we have 20 big applications.”
- The head of business applications with a healthcare organization said: “Our DevOps team can now focus on higher-value activities since a lot of the others are more automated.”
- The data and information manager with a beverage distributor said: “We are using Azure DevOps for code management along with GitHub. It’s made things much easier.”
- An analyst with a beverage distributor said: “We’ve implemented a proper DevOps philosophy and framework. This has removed silos and it saves people time.”
- The digital transformation and innovation manager in the field services industry said: “We would have had to increase our DevOps team by 30% to support the same number of projects. Instead, the team has stayed the same size, but it is doing more. We have recently added GitHub, which should add more benefits.”

Modeling and assumptions. For the financial analysis, Forrester made the following assumptions based on the above examples:

- The savings from not having to scale the DevOps team to serve the avoided additional developers in the previous benefit are included. Additional efficiency gains which could reduce team size are excluded because most organizations are not cutting back on their DevOps teams while the number of development projects increases. If a decision-maker is open to reducing their organization’s existing DevOps team sizes, they can add that into their application of the benefits in this study.

Risks. Some factors that could result in this benefit being lower than interviewees reported include:

- Already having low-code/no-code and other tools such as GitHub in place that make DevOps more efficient.
- Having spare capacity on their organization’s DevOps team.

To account for these risks, Forrester adjusted this benefit downward by 10%, yielding a three-year, risk-adjusted total PV of $1.7 million.

> **“Our DevOps team has been reduced from eight to six people.”**
>
> *Head of business applications, healthcare*

Increased DevOps Efficiency					
Ref.	**Metric**	**Calculation**	**Year 1**	**Year 2**	**Year 3**
B1	Baseline DevOps headcount (value rounded up)	A2/10	3	3	3
B2	Increased DevOps headcount not required (value rounded up)	A4/10	1	2	3
B3	Increased DevOps team required without Power Platform	B1+B2	4	5	6
Bt	Increased DevOps efficiency (fully burdened cost)	B3*$150,000	$600,000	$750,000	$900,000
	Risk adjustment	↓10%			
Btr	Increased DevOps efficiency (risk-adjusted)		$540,000	$675,000	$810,000
	Three-year total: $2,025,000		**Three-year present value: $1,657,325**		

BUILD VERSUS BUY LICENSE AND PROFESSIONAL SERVICES SAVINGS

Increasing in-house development and DevOps capabilities means that organizations can spend less money on third-party solutions and professional services. Many decision-makers view these types of savings in which money does not go outside the four walls of the company as more valuable than internal efficiency gains.

Evidence and data. Interviewees shared many examples where they were able to reduce or completely eliminate external spend:

- The head of business applications with the healthcare organization said: “We had a project and portfolio management solution that was costing us $260,000 per year in licenses and maintenance. We built something in-house to replace it for $40,000.”
- The data and information manager with the beverage distributor said: “We are replatforming everything onto Azure and having Power Platform helps us with this replatforming initiative. It will save us a lot of money.”
- The head of business applications with the healthcare organization said: “We completed a project using Power Platform that cost $525,000 over five years. Had we done it on the [previous technology], we would have spent $4.1 million. That means we have saved $3.6 million in licenses alone.”

Modeling and assumptions. For the financial analysis, Forrester made the following assumptions based on the above examples:

- The total savings on third-party solutions, low-code/no-code tools, and professional services is worth $1,250 per employee over three years. The annual benefit ramps up over time as more projects are completed and more solutions are brought in-house.

> **“We have already saved $2 million in license costs for vendor solutions over the past three years. That would continue to increase because of maintenance, and it does not include hardware since we have always been on Azure.”**
>
> *Enterprise business systems manager, beverage distributor*

Risks. Some factors which could result in this benefit being lower than interviewees reported include:

- An organization prefers to use third-party applications and professional services for flexibility or budgetary reasons.
- The internal teams do not have the capacity or skills to take on these types of projects.
- There were no previous low-code/no-code development tools in use.

To account for these risks, Forrester adjusted this benefit downward by 15%, yielding a three-year, risk-adjusted total PV of $8.5 million.

Build Versus Buy License And Professional Services Savings

Ref.	Metric	Calculation	Year 1	Year 2	Year 3
C1	Number of employees	A1	10,000	10,000	10,000
C2	Savings per employee	Interviews	$187.50	$375.00	$687.50
Ct	Build versus buy license and professional services savings	C1*C2	$1,875,000	$3,750,000	$6,875,000
	Risk adjustment	↓15%			
Ctr	Build versus buy license and professional services savings (risk-adjusted)		$1,593,750	$3,187,500	$5,843,750
	Three-year total: $10,625,000		**Three-year present value: $8,473,657**		

UNQUANTIFIED BENEFITS

There are other benefits that interviewees said their organizations experienced, but they are not included in the financial analysis. This is because this study is focused on the hard efficiency and cost savings experienced by the IT organization rather than the resulting benefits around better business outcomes, improved analytics, and stronger security and compliance. The unquantified benefits include:

- **Improved Business Outcomes.** Each of the interviewees spoke at length about how their companies have improved because professional development is taking place using Power Platform and Azure. Some ways they have benefited include increased revenues, improved business user productivity, and faster time-to-market.
- The manager with the petrochemical organization said: “Probably close to half the company uses a Power App for something. At our new plant, we are anticipating 25% time savings in commissioning activities. Afterwards, the operators will not have to walk around with a clipboard and pen in hand in minus-thirty-degree temperatures. The time savings will be substantial.”
- The head of business applications in the healthcare industry said: “We built an application to track how in-store sales associates are spending their time, and we plug that information into Power BI. The general manager says it will

increase revenues by $10 million per year when rolled out to all 600 users."

A director of commercial capabilities with the beverage distributor said: "We created a solution using Power Platform to improve the ordering process for our field salesforce. That has resulted in $1 million in incremental revenue from faster speed to market."

Many more examples of improved business outcomes are included in the companion study that more fully explores Power Platform and the citizen development story.

- **Better Business Intelligence.** Power BI, Microsoft Dataverse, and the multiple business intelligence, AI, and machine learning capabilities built into Azure make it easier for ProDevs to embed these capabilities and give business users more timely access to the right information to make better decisions. Interviewees explained different ways their development and data teams use these tools to improve business intelligence:
    - The head of busines applications with the healthcare organization said: "We have built a data platform that combines data from different ERP systems. We embed that into Power Platform and combine it with the data in [Dataverse]."
    - The director of commercial capabilities with the beverage distributor said: "We are now using Power BI and Azure Analytics Services cubes. Adoption and excitement have gone through the roof because it is 20 times faster than our previous solutions."
    - The analyst with the beverage distributor said: "Power BI has a lot of out-of-the-box capabilities. It doesn't require a lot of effort to make something look great. We get maximum results with minimum effort."
    - The manager with the petrochemical organization said: "We are taking the next step towards true centralized data management. Power Platform becomes even more pivotal when it comes to reporting and consolidating metrics. It also frees up the few DBAs [database administrators] we have to focus on other activities."
- **Stronger Security And Compliance.** ProDev solutions built using Power Platform and Azure can take advantage of all the security features built into the Microsoft solution stack. This makes it easier to have stronger and more consistent security at the data and user access levels. This can also make it easier to comply with internal policies and external regulations. Interviewees shared the following examples:
    - The head of business applications with the healthcare organization said: "Previously, we had fragmented security or there was no security when a spreadsheet was emailed. Now we can easily manage what users can do, and we can incorporate all of the security features in Microsoft 365 such as data encryption."
    - The data and information manager with the beverage distributor said: "Power Platform gives us out-of-the-box single sign-on. Developers love this because they would otherwise have to create it on the back-end."
    - The head of business applications with the healthcare organization said: "Our industry is highly regulated, and it includes validating our systems for government regulators. It is a painful process, but Power Platform makes it easier."

- The manager with the petrochemical organization said, “We are able to apply a level of security and compliance to solutions in the field that we wouldn’t have even known was possible.”

FLEXIBILITY

The value of flexibility is unique to each customer. There are multiple scenarios in which a customer might make Power Platform and Azure available to their ProDev and DevOps teams and later realize additional uses and business opportunities, including:

- Using additional solutions components of Power Platform and Azure not already in use by the IT organization.
- Integrating Dynamics 365 or Microsoft 365 if not already done.
- Rolling out Power Platform to more development teams.
- Using these tools for more varied types of development initiatives

Flexibility would also be quantified when evaluated as part of a specific project (described in more detail in Appendix A). None of these future benefits was included in the financial analysis.

“Another benefit is that Power Platform is part of the entire Microsoft ecosystem. Microsoft is always adding features, and the solutions are constantly evolving. All of this is included in the licenses. This gives developers new capabilities they can leverage when building solutions.”

Head of business applications, healthcare

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	Internal IT costs	$82,500	$4,620,000	$4,620,000	$4,620,000	$13,942,500	$11,571,756
Etr	Licenses	$0	$41,580	$223,839	$521,136	$786,555	$614,328
	Total costs (risk-adjusted)	$82,500	$4,661,580	$4,843,839	$5,141,136	$14,729,055	$12,186,084

INTERNAL IT COSTS

These costs represent the baseline ProDev and DevOps teams. By using Power Platform, Azure, and GitHub, IT employees are able to complete a lot more work without growing the team. The otherwise necessary increased team size was shown in the Benefits section of this study. Subtracting this cost from the first two benefit categories (Atr and Btr) shows net savings of $3.6 million or 24%.

Modeling and assumptions. For the financial analysis, Forrester made the following assumptions:

- There is a three-month initial period during which two FTEs stand up Power Platform and provide the necessary guidance for the ProDev and DevOps teams to use.
- The IT organization that does not have to expand consists of 25 developers and three DevOps resources.
- The average fully burdened cost of an IT worker including benefits and taxes is $150,000 per year.

Risks. Some factors that could result in this benefit being lower than interviewees reported include:

- Having a lower developer-to-DevOps ratio.
- Requiring more time to get Power Platform up and running.
- Having lower labor costs.

To account for these risks, Forrester adjusted this cost upward by 10%, yielding a three-year, risk-adjusted total PV (discounted at 10%) of $11.6 million.

Internal IT Costs						
Ref.	**Metric**	**Calculation**	**Initial**	**Year 1**	**Year 2**	**Year 3**
D1	Implementation	3 months*2 FTEs*$12,500	$75,000			
D2	Number of employees	A1	10,000	10,000	10,000	10,000
D3	Number of affected developers	A2		25	25	25
D4	Number of affected DevOps workers (FTEs)	B1		3	3	3
D5	Average fully burdened cost	Composite	$150,000	$150,000	$150,000	$150,000
Dt	Internal IT costs	D1+(D3+D4)*D5	$75,000	$4,200,000	$4,200,000	$4,200,000
	Risk adjustment	↑10%				
Dtr	Internal IT costs (risk-adjusted)		$82,500	$4,620,000	$4,620,000	$4,620,000
	Three-year total: $13,942,500			**Three-year present value: $11,571,756**		

LICENSES

Many of the Power Platform capabilities are included in Microsoft 365 and Dynamics 365 licenses, depending on the license level. Generally, they include the Power Apps and Power Automate licenses to extend Microsoft 365 and/or Dynamics 365. E5 licenses also include Power BI.

Additional licenses are required for some premium connectors, using Power Automate flows in ways other than extending Microsoft solutions, and creating robotic process automation (RPA) bots and Power Virtual Agents. Any incremental Azure usage also has associated consumption costs.

Modeling and assumptions. For the financial analysis, Forrester made the following assumptions:

- The composite organization has Microsoft 365 E5 licenses for knowledge workers using Power Platform, and it has F3 licenses for first-line workers. These include Power Apps and Power Automate to extend Microsoft 365 as well as Power BI.
- The number of flows not covered by the Microsoft 365 licenses increases as more processes are automated.
- RPA bots are built to automate legacy application processes.
- Power Virtual Agent pricing is based on the number of sessions. In Year 2, half of the employees are engaging in a PVA session twice per month. In Year 3, all employees are engaging in a PVA session three times per month on average.
- Additional use of Azure results in consumption charges equal to 10% of the stand-alone Power Platform license costs.

Risks. Some factors that could result in this benefit being lower than interviewees reported include:

- Not having E5 licenses that include Power BI.
- Creating more flows not included in other Microsoft licenses or requiring more premium connectors.

- Consuming more Azure.

To account for these risks, Forrester adjusted this cost upward by 5%, yielding a three-year, risk-adjusted total PV of $614,328.

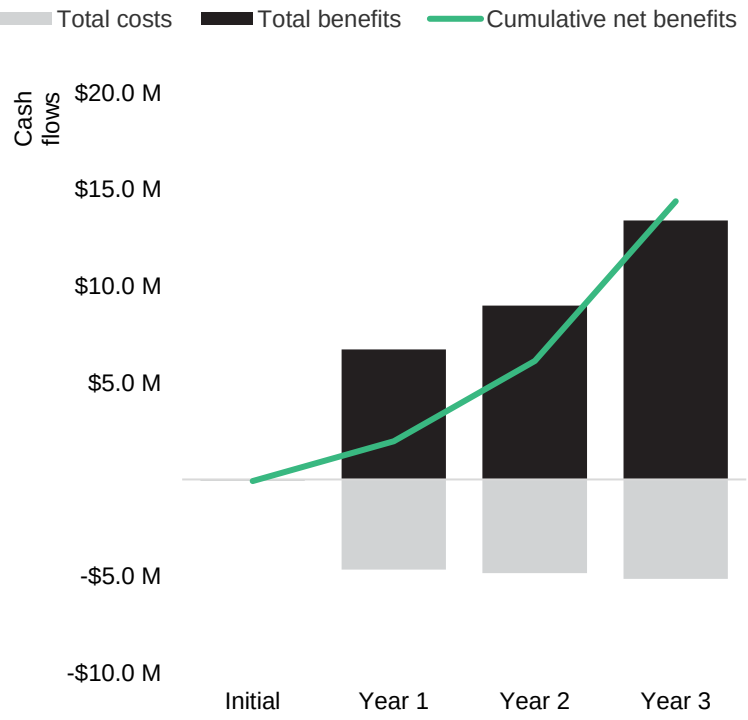
Licenses

Ref.	Metric	Calculation	Initial	Year 1	Year 2	Year 3
E1	Number of employees	A1		10,000	10,000	10,000
E2	Number of users requiring premium connectors	Year 1: E1*2.5%; Year 2: E1*5.0%; Year 3: E1*10.0%		250	500	1,000
E3	Premium connector costs	Per user per month		$10	$20	$20
E4	Power Apps premium connector license costs	E2*E3*12 months		$30,000	$120,000	$240,000
E5	Number of Flows not covered by Microsoft 365 licenses	Composite		5	10	20
E6	Power Automate add-on licenses	$100*E5*12 months		$6,000	$12,000	$24,000
E7	Number of unatteneded RPA bots	Composite		0	1	4
E8	Unattended RPA add-on license costs	$150*E7*12 months		$0	$1,800	$7,200
E9	Number of Power Virtual Agent sessions (monthly)	Year 2: E1*50%*2*12 months; Year 3: E1*100%*3*12 months		0	120,000	360,000
E10	Power Virtual Agent add-on licenses	E9/2,000 sessions*$1,000		$0	$60,000	$180,000
E11	Incremental Azure consumption	(E4+E6+E8+E10)*10%		$3,600	$19,380	$45,120
Et	Licenses	E4+E6+E8+E10+E11	$0	$39,600	$213,180	$496,320
	Risk adjustment	↑5%				
Etr	Licenses (risk-adjusted)		$0	$41,580	$223,839	$521,136
	Three-year total: $786,555		**Three-year present value: $614,328**			

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	($82,500)	($4,661,580)	($4,843,839)	($5,141,136)	($14,729,055)	($12,186,084)
Total benefits	$0	$6,723,750	$8,992,500	$13,403,750	$29,120,000	$23,614,754
Net benefits	($82,500)	$2,062,170	$4,148,661	$8,262,614	$14,390,945	$11,428,670
ROI						94%
Payback period (months)						<6

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] Source: “The Total Economic Impact™ Of Microsoft Power Platform – Cost Savings And Business Benefits Enabled By Citizen Development,” a commissioned study conducted by Forrester Consulting on behalf of Microsoft, February 2021.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