The Total Economic Impact[™] Of Microsoft Power Pages

Cost Savings And Business Benefits Enabled By Power Pages

A Forrester Total Economic Impact™ Study Commissioned By Microsoft, Updated September 2024



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Consulting Team:

Sam Sexton

Matt Dunham

Benjamin Brown

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Rapid web application development is vital for all organizations. Regardless of size, organizations need to ensure that new pages and features are helping to convert customers as quickly as possible, while non-corporate entities have legal obligations to inform the public about access to resources or potential threats. However, as cross-functional collaboration becomes more important than ever, and skilled senior-level developers are in short supply, it can be difficult for organizations to grow quickly in a sustainable and affordable way.

<u>Microsoft Power Pages</u>, a part of the Microsoft Power Platform, provides organizations with low-code web application development capabilities, improved integrations between web applications and back-end services, and additional features when used in conjunction with other parts of the Power Platform, including Power Apps, Power Automate, and Copilot Studio.

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 Power Pages.¹ The purpose of this study is to provide readers with a framework to evaluate the potential financial impact of Power Pages on their organizations.



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Three-year Net present value (NPV) **\$5.8M**

To better understand the benefits, costs, and risks associated with this investment, Forrester interviewed five representatives with experience using Power Pages. For the purposes of this study, Forrester aggregated the interviewees' experiences and combined the results into a single <u>composite organization</u>.

Interviewees said that prior to using Power Pages, their organizations were limited to outdated legacy web application development services. These services often required

significant manual effort to maintain, and siloed management made both the actual labor of web application development and the processes surrounding it take significant time. This led to a reliance on external contractors, delayed web application projects, and significant expenses to maintain integrations and data connectors, maintain the prior platform, and pay licensing fees.

After the investment in Power Pages, the interviewees were able to replace expensive, senior-level contractors with business users and accelerate their web application development. Key results from the investment include productivity savings on web application development, cost savings on hiring contractors, reduced total cost of ownership, and accelerated rollout of web applications.

KEY FINDINGS

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

- Reduced development time for new web applications by 25%. Microsoft Power Pages enables the composite organization to templatize their web application development, reuse work rather than having to perform the same tasks repeatedly, and ideate on feedback significantly faster. This equates to a 25% productivity boost for web developers, yielding a risk-adjusted, three-year present value (PV) of \$3.2 million.
- Cost savings from avoiding 10 developer contractors by empowering junior and citizen developers. The low-code capabilities of Power Pages enable the composite organization to empower business users and junior-level developers for project support, instead of turning to high-level web development contractors to perform these tasks. The composite avoids costs for 10 full-time contractors, handling the same project needs in a democratized manner with 50 internal employees each spending an average of 80 hours per year. This equates to an 81% drop in labor hours at a 42% lower cost per hour, saving the composite organization a risk-adjusted, three-year total of \$3.6 million.
- Time savings of 20% on maintaining integrations and data connectors for existing web applications. Built-in integrations with Power Pages enable the composite organization to avoid dedicating significant time to manage the

integrations and data connectors between their web applications and back-end services. This provides the integrations team with 20% time savings, yielding a three-year, risk-adjusted benefit of \$383,000.

 Avoided ongoing licensing and maintenance costs for prior software and platforms of \$800,000 per year. The composite organization's prior web application development solution requires \$150,000 per year in licensing fees, two maintenance engineering FTEs, and two database administrator FTEs to maintain. Power Pages eliminates the need for this maintenance effort and expenditure. Over three years, this saves the composite organization a riskadjusted total of \$1.3 million.

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

- **Improved security.** The built-in security for web end users of Microsoft Power Pages can enable savings on other security services and aid with compliance requirements for organizations that are either 1) working with, or 2) are a part of government or non-corporate organizations and regulated industries.
- Improved service for constituents and customers. The composite organization's increased velocity of web application development allows them to better anticipate and meet customer needs, as well as more quickly respond to feedback and solve issues. For government or non-corporate organizations, this speed could translate to more convenience for constituent or citizen services.
- **Reduced cost of service for organizations.** Faster, more responsive web application development and improved overall web capabilities allow organizations to move away from costly solutions (e.g., call centers) for handling potential issues. Instead, they can leverage self-service or online options.
- Improved time-to-market. Increasing the speed of web application development can significantly reduce the amount of time to launch new web pages and thus, potentially new revenue-generating services.

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

• Implementation and training costs. The composite organization requires a small team working for three months to implement Microsoft Power Pages. This

implementation, along with an initial training of the entire team and annual trainings of new employees, costs the organization a risk-adjusted, three-year total of \$596,000.

• **Ongoing licensing and maintenance costs.** The composite organization has two junior maintenance FTEs managing updates and ongoing support for Power Pages. It pays \$600,000 in licensing fees annually for 100,000 monthly authenticated end users for its web applications. Over three years, this costs the composite organization a risk-adjusted \$2.2 million.

The representative interviews and financial analysis found that a composite organization experiences benefits of \$8.6 million over three years versus costs of \$2.8 million, adding up to a net present value (NPV) of \$5.8 million and an ROI of 207%.

Productivity savings for web application development

25%

"Without Power Pages, we would have struggled to put up something with the same level of functionality with a different platform in the short period of time we had."

SENIOR BUSINESS ANALYST, INTERNATIONAL NON-CORPORATE ORGANIZATION



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 Microsoft Power Pages.

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 Pages can have on an 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 study to determine the appropriateness of an investment in Power Pages.

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.

Due Diligence

Interviewed Microsoft stakeholders and Forrester analysts to gather data relative to Power Pages.

Interviews

Interviewed five representatives at organizations using Power Pages to obtain data about 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 riskadjusted the financial model based on issues and concerns of the interviewees.

Case Study

Employed five 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 <u>Appendix A</u> for additional information on the TEI methodology.

The Microsoft Power Pages Customer Journey

Drivers leading to the Power Pages investment

Interviews			
Role	Industry	Geography	Revenue
Director	Professional services	Global	\$50 billion
Senior business analyst	International non-corporate organization	Global	\$10 billion budget
Manager of product and engineering	Telecommunications	Global	\$79 billion
IT director	State government agency	US	\$80 million budget
IT program manager	Federal government agency	US	\$5.6 billion budget

KEY CHALLENGES

Before implementing Microsoft Power Pages, the interviewees' organizations had limited, legacy low-code web development solutions. Some had multiple limited solutions that worked in silos for different parts of the process, while others had a single platform that had to be managed by a separate siloed team.

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

 Long, manual development process for web applications. Interviewees explained that developing web applications was a long and arduous process, often requiring manual and repetitive effort, and struggled to reach a build where ideation and feedback could occur. The manager of product and engineering for the telecommunications organization explained, "The development delays and intervals it would take to create solutions were too long." Need to quickly create applications and pages to meet urgent

circumstances. In addition to web application development taking too much employee time and effort, several interviewees told Forrester that their organizations were simply unable to produce web applications quickly enough to meet critical objectives. This need was especially acute for the government and non-corporate organizations, who had legal responsibilities to provide citizen services or resources to deal with crises like the COVID-19 pandemic. The IT director from the state government shared, "Everything was coming to my desk — either systems that needed to be modernized, or new programs required because of new legislation."

"Our main driver was to get a platform instead of just another product or service for a particular need. We wanted one platform that could serve multiple needs."

IT DIRECTOR, STATE GOVERNMENT AGENCY

- Difficulty collaborating with non-developers. Many of the interviewees' organizations featured relatively small development teams that had to complete tasks disproportionate to their size. Often, they needed to work with non-developers on various tasks, but were forced to rely on external contractors or other departments' developers for additional tasks, rather than empowering other roles. The IT program manager for the federal government agency explained how their organization was held back from this enhanced holistic approach to teambuilding: "I'm a big proponent of hiring people who have characteristics or experience at a junior level that allow them to learn what they need and be a part of the development cycle."
- Fragmented, difficult-to-maintain prior state. Previously, many of the interviewees' organizations used less sophisticated web application development solutions — sometimes multiple solutions for different parts of the process. These

required manual effort to maintain, had expensive licensing, and lacked native integration and data connector support. The manager of product and engineering for the telecommunications organization explained that consolidating their solutions was a significant driver for the Power Pages investment: "We would have had to do some level of migration. We were at a point where in terms of saving around operational costs, it made sense for us to use this toolset."

"We had a lot of duplicate software and capabilities. One of our main goals was to reduce that operational cost and simplify our overall ecosystem."

MANAGER OF PRODUCT AND ENGINEERING, TELECOMMUNICATIONS

INVESTMENT OBJECTIVES

The interviewees' organizations searched for a solution that could:

- Empower citizen and junior developers.
- Accelerate development without compromising security.
- Eliminate disparate or redundant license and management costs.

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 industry-agnostic organization has 30,000 employees, a revenue of \$10 billion, and operates around the globe. It has a total of 100 full-time web developers using Microsoft Power Pages.



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	Reduced development time for new web applications	\$1,306,250	\$1,306,250	\$1,306,250	\$3,918,750	\$3,248,450	
Btr	Cost savings on contractor developer team	\$1,446,360	\$1,446,360	\$1,446,360	\$4,339,080	\$3,596,883	
Ctr	Time savings on maintaining integrations and data connectors for existing web applications	\$153,900	\$153,900	\$153,900	\$461,700	\$382,727	
Dtr	Avoided ongoing maintenance and licensing costs for prior software and platforms	\$540,000	\$540,000	\$540,000	\$1,620,000	\$1,342,900	
	Total benefits (risk-adjusted)	\$3,446,510	\$3,446,510	\$3,446,510	\$10,339,530	\$8,570,960	

REDUCED DEVELOPMENT TIME FOR NEW WEB APPLICATIONS

Evidence and data. Every interviewee noted that Microsoft Power Pages streamlined various parts of their web application development process, enabling faster development of web applications with less labor and effort required for their development team.

 Power Pages allows organizations to take advantage of stored templates to reuse work, rather than having to create the same elements or perform the same work repeatedly. The senior business analyst for the international noncorporate organization explained: "We have things we can reuse — forms, themes, styles. ... We have custom layout pages or components we can just reuse if we have to make a new page because we got a request from somewhere."

- Power Pages also provided more flexibility to organizations with strict requirements around branding. Rather than having to painstakingly build custom assets each time, they could simply import what they needed once and use those assets going forward. The director of the professional services organization noted: "Power Pages was of particular interest to us because we have strict branding guidelines and didn't want to have to rebuild styled components for each new app. Our brand-compliant component packages were easily imported into Power Pages and has accelerated our ability to deliver branded web applications."
- Modifying and adjusting web applications that were previously completed was also faster and easier with Power Pages. The manager of product and engineering for the telecommunications organization shared: "In Power Pages, it took much less time to add drop-downs, add fields, or enhance something. ... Before, it would take around a full week."

"We definitely save at least 20% of our time once you get up to speed on [Power Pages]."

MANAGER OF PRODUCT AND ENGINEERING, TELECOMMUNICATIONS

 A key way Power Pages sped up development was by enabling developers to reach a preliminary stage where more detailed feedback and ideation could occur earlier than before. The director of the professional services organization explained, "The time to get an application up off the ground is reduced by leveraging Power Pages, and therefore people are able to use it and iterate on feedback in a much quicker timeframe than what we had been doing previously."

Modeling and assumptions. Based on the interviews, Forrester assumes the following about the composite organization:

- The composite organization has 100 full-time web application developers, who develop five applications annually. Each full-time web application developer spends eight weeks per web application.
- Power Pages reduces the amount of time required to actively work on each web application project by 25%. The time it takes to develop a web application falls from eight weeks to six weeks with Power Pages.
- A 50% productivity recapture is applied to the time savings.

25%

Reduction in web application and page development time with Microsoft Power Pages

Risks. Factors that could impact the size of this benefit for organizations include:

- Size and productivity of web application development team before Power Pages.
- Fully-burdened salary of web application development team members.
- Degree to which Power Pages can improve on web application development speed.

Results. To account for these risks, Forrester adjusted this benefit downward by 5%, yielding a three-year, risk-adjusted total PV (discounted at 10%) of \$3.2 million.

Reduced Development Time For New Web Applications							
Ref.	Metric	Source	Year 1	Year 2	Year 3		
A1	Web developers using Microsoft Power Pages	Composite	100	100	100		
A2	Web apps developed annually, per web developer	Composite	5	5	5		
A3	Time required for development before Power Pages (weeks)	Interviews	8	8	8		
A4	Weekly fully-burdened salary of a web app developer	TEI standard	\$2,750	\$2,750	\$2,750		
A5	Subtotal: Cost of web application development before Power Pages	A1*A2*A3*A4	\$11,000,000	\$11,000,000	\$11,000,000		
A6	Web app and page development time savings with Power Pages	Interviews	25%	25%	25%		
A7	Time required for development with Power Pages (weeks)	A3*(1-A6)	6	6	6		
A 8	Subtotal: Cost of web application development with Power Pages	A1*A2*A4*A7	\$8,250,000	\$8,250,000	\$8,250,000		
A9	Productivity recapture	TEI standard	50%	50%	50%		
At	Reduced development time for new web applications	(A5-A8)*A9	\$1,375,000	\$1,375,000	\$1,375,000		
	Risk adjustment	↓5%					
Atr	Reduced development time for new web applications (risk-adjusted)		\$1,306,250	\$1,306,250	\$1,306,250		
	Three-year total: \$3,918,750		Three-year pre	sent value: \$3,248	,450		

COST SAVINGS ON CONTRACTOR DEVELOPER TEAM

Evidence and data. Before Microsoft Power Pages, interviewees reported that they had to rely on highly experienced web developer contractors to provide additional project support for the main web application development team. Implementing Power Pages enabled the interviewees' organizations to reduce their dependence on contractors to build and maintain web pages and applications. Instead, existing junior developers and citizen developers could provide the necessary project support themselves for relatively low incremental effort.

 Power Pages' low-code development capabilities enabled organizations to bring in citizen developers or business users involved in projects on the non-technical side to provide assistance. The senior business analyst for the international noncorporate organization noted: "In the early days, one of the people on our team was critical in organizing everything, working on the flows. ... He's a lawyer! He's not a technical person, but he's very good at understanding what we needed, and with [Power Pages'] low-code capabilities, he was able to deliver more than you'd expect from someone who wasn't trained in this stuff."

- Some interviewees were able to speak firsthand to how the capabilities of Power Pages enabled greater participation in the design process from non-technical employees. The IT director for the state government agency noted, "I'm not a developer, and I've created multiple solutions in the Microsoft ecosystem, including with Power Pages."
- The IT program manager for the federal government agency shared how Power Pages' low-code capabilities allowed them to realize a vision for a less senior, technically-oriented workforce: "We don't need to hire senior-level people anymore. ... Power Pages lets us hire people that can come on, learn, and participate in the development cycle early and often."

"Most people outside of our group are dealing with contractors. ... Now they can come to us, and we can handle the bulk of the development in a few weeks."

IT PROGRAM MANAGER, FEDERAL GOVERNMENT AGENCY

Modeling and assumptions. Based on the interviews, Forrester assumes the following about the composite organization:

- Before Power Pages, the composite organization required 10 full-time contractor web developer FTEs to provide additional support on web development projects. Contractor web developers cost \$92 per hour, an 80% premium above the base salary for internal web developers.
- With Power Pages, the composite organization can empower citizen developers and junior-level developers to provide this support instead.

- Fifty of the composite's junior or citizen developers are trained on using Power Pages, with each of these employees devoting 80 hours per year to development and maintenance tasks that were previously handled by contractors.
- Junior and citizen developers have a fully burdened hourly wage of \$53.

100% of contractor FTE team

Avoided with citizen and junior developers providing project support with Power Pages

Risks. Factors that could impact the size of this benefit for organizations include:

- Number of contractors or other high-level developers required for project support before Power Pages.
- Degree to which Power Pages can empower lower-level developers and citizen developers.
- Salary disparity between contractors and citizen/junior developers.

Results. To account for these risks, Forrester adjusted this benefit downward by 15%, yielding a three-year, risk-adjusted total PV (discounted at 10%) of \$3.6 million.

81% lower

Reduction in excess project development hours to supplement the internal web development team with Power Pages

Cost Savings On Contractor Developer Team							
Ref.	Metric	Source	Year 1	Year 2	Year 3		
B1	Reduced number of contractors required for web development work	A1*10%	10	10	10		
B2	Annual hours per contractor	Composite	2,080	2,080	2,080		
B3	Web developer contractor hourly wage	TEI standard	\$92	\$92	\$92		
B4	Subtotal: Avoided contractor costs	B1*B2*B3	\$1,913,600	\$1,913,600	\$1,913,600		
B5	Junior and citizen developers trained to support Power Pages	Composite	50	50	50		
B6	Annual hours per employee to replace contractor tasks	Interviews	80	80	80		
B7	Junior or citizen developer blended fully- burdened hourly wage	TEI standard	\$53	\$53	\$53		
B8	Subtotal: Incremental labor from junior or citizen developers	B5*B6*B7	\$212,000	\$212,000	\$212,000		
Bt	Cost savings on contractor developer team	B4-B8	\$1,701,600	\$1,701,600	\$1,701,600		
	Risk adjustment	↓15%					
Btr	Cost savings on contractor developer team (risk-adjusted)		\$1,446,360	\$1,446,360	\$1,446,360		
	Three-year total: \$4,339,080		Three-year pres	sent value: \$3,596,	883		

TIME SAVINGS ON MAINTAINING INTEGRATIONS AND DATA CONNECTORS FOR EXISTING WEB APPLICATIONS

Evidence and data. A major area of benefit for the interviewees' organizations was avoiding the manual work of maintaining integrations and data connectors with web applications on their prior design platform.

- Microsoft Power Pages provides savings on managing integrations between different web applications, data connectors between each web application, and back-end services.
- The director of the professional services organization explained: "[Power] Pages can integrate directly with our Azure API management and interact with several dozen internal apps. ... It lets us leverage [Power] Pages for different use cases."
- The senior business analyst for the international non-corporate organization provided an example of how the ease of managing integrations came in handy during data migrations, "We have a group of individuals with expertise doing data

migrations, but we would have had to massage the data quite a bit if we weren't able to take advantage of the whole Power Platform approach."

Modeling and assumptions. Based on the interviews, Forrester assumes the following about the composite organization:

- The composite organization has 10 integration engineer FTEs managing integrations and data connectors full time.
- Power Pages saves 20% of time on managing integrations and data connectors.
- A 50% productivity recapture is applied.

20%

Reduction in effort to maintain integrations and data connectors

Risks. Factors that could impact the size of this benefit for organizations include:

- Size and salary of the integration engineering team.
- Amount of time spent on integrations and data connectors before Power Pages.
- Degree to which Power Pages can provide additional time savings.

Results. To account for these risks, Forrester adjusted this benefit downward by 5%, yielding a three-year, risk-adjusted total PV (discounted at 10%) of \$383,000.

Time Savings On Maintaining Integrations And Data Connectors For Existing Web

Дрр	lications				
Ref.	Metric	Source	Year 1	Year 2	Year 3
C1	Integration engineers managing integrations and data connectors for web applications	Composite	10	10	10
C2	Annual fully-burdened salary of an integration engineer	TEI standard	\$162,000	\$162,000	\$162,000
C3	Percentage of time saved on integration and data connection tasks by Microsoft Power Pages	Interviews	20%	20%	20%
C4	Productivity recapture	TEI standard	50%	50%	50%
Ct	Time savings on maintaining integrations and data connectors for existing web applications	C1*C2*C3*C4	\$162,000	\$162,000	\$162,000
	Risk adjustment	↓5%			
Ctr	Time savings on maintaining integrations and data connectors for existing web applications (risk-adjusted)		\$153,900	\$153,900	\$153,900
	Three-year total: \$461,700		Three-year p	resent value: \$382	2,727

"If I swapped Power Pages out for an alternative platform, I would need several people for tasks, including to manage the integrations."

IT DIRECTOR, STATE GOVERNMENT AGENCY

AVOIDED MAINTENANCE AND LICENSING COSTS FOR PRIOR SOFTWARE AND PLATFORMS

Evidence and data. Interviewees whose organizations had significant investments in other web development platforms reported savings on total cost of ownership (TCO) expenses, including annual licensing and maintenance effort.

- The manager of product and engineering for the telecommunications organization explained: "Microsoft Power Pages made it an option for us to eliminate duplicate software and capabilities — another toolset. We avoided a significant amount of money and cost with a renewal."
- The director of the professional service firm reported that the time to market and total cost of ownership were both improved when developing in Power Pages.
 "[Power Pages] changed where a lot of applications are being built, we are pushing a low-code first approach."

Modeling and assumptions. Based on the interviews, Forrester assumes the following about the composite organization:

- The composite organization required two lower-level maintenance engineering FTEs to help manage their prior platform.
- The composite organization also required two database administrators to manage the back-end servers on their prior platform.
- The composite organization paid \$150,000 in licensing fees each year.
- Power Pages eliminates the need for this labor and associated licensing costs.

\$540,000

Total annual TCO savings

100%

Prior license fees avoided

Risks. Factors that could impact the size of this benefit for organizations include:

- Amount of maintenance engineering and database administration labor required before Power Pages.
- Licensing fees paid before Power Pages.
- Degree to which Power Pages can completely replace other solutions.

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 \$1.3 million.

Avoi	Avoided Maintenance And Licensing Costs For Prior Software And Platforms						
Ref.	Metric	Source	Year 1	Year 2	Year 3		
D1	Maintenance engineering FTEs required to maintain prior web app development platform	Interviews	2	2	2		
D2	Annual fully-burdened salary of a platform maintenance FTE	TEI standard	\$120,000	\$120,000	\$120,000		
D3	Subtotal: Avoided platform maintenance engineer FTEs	D1*D2	\$240,000	\$240,000	\$240,000		
D4	Database administrator FTEs required prior to Microsoft Power Pages	Interviews	2	2	2		
D5	Annual fully-burdened salary of a database administrator FTE	TEI standard	\$105,000	\$105,000	\$105,000		
D6	Subtotal: Avoided database administrator FTEs	D4*D5	\$210,000	\$210,000	\$210,000		
D7	Subtotal: Annual prior platform and software licensing fees	Interviews	\$150,000	\$150,000	\$150,000		
Dt	Avoided maintenance and licensing costs for prior software and platforms	D3+D6+D7	\$600,000	\$600,000	\$600,000		
	Risk adjustment	↓10%					
Dtr	Avoided maintenance and licensing costs for prior software and platforms (risk- adjusted)		\$540,000	\$540,000	\$540,000		
	Three-year total: \$1,620,000		Three-year prese	ent value: \$1,342,9	00		

"In the past, we used to have a small team of database administrators that were associated with our back-end servers. We don't do that anymore."

SENIOR BUSINESS ANALYST, INTERNATIONAL NON-CORPORATE ORGANIZATION

UNQUANTIFIED BENEFITS

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

- Improved security. Microsoft Power Pages features built-in security and authentication that is vital for external-facing web applications, especially in the government or organizations with strict regulations. The senior business analyst for the international non-corporate organization noted: "The configurable ways we can set up web roles and security was a huge advantage for us. I can make sure this page is only accessible for authenticated users, or users with a certain role."
- Improved service for citizens and customers. Faster development of web applications enabled new possibilities for the interviewees' organizations, giving them the capability to set up online services for customers or citizens, in the case of governments that could replace less convenient ways to conduct business or reach out for resources. The IT program manager for the federal government agency explained: "[With Power Pages,] the intent is that people can share information and get inquiries and requests submitted in a standardized, intelligent way, and decrease how complex the process is. ... In time, the amount of other ingestion points is decreasing the need for others to even pick up the phone to call the call center."
- Reduced cost of service for organizations. In addition to providing more convenience for citizens and customers, the improved services described above also enable cost savings or increased revenue collection for organizations and

governments by reducing reliance on expensive call centers or more easily collecting fees and dues. The IT director from the state government agency shared, "I can't talk enough about how much Power Pages enables us to promote public safety while driving more revenue at the same time — we're looking at upwards of 5% more collected."

• Improved time-to-market. The enhanced speed of web application development saved time and effort for the interviewees' organizations, and also let them get features to market quicker, potentially increasing revenue. The director of the professional services organization explained, "Depending on the size of the application, we're able to see value in a matter of weeks versus months."

FLEXIBILITY

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

 Additional benefits with other components of the Microsoft Power Platform. All the above benefits were primarily achieved through the use of Power Pages alone, but interviewees using the broader Power Platform told Forrester that they were able to realize even more benefits by using Power Pages alongside Power Apps and Power Automate. The director of the professional services organization explained, "Power Pages seamlessly integrates with Power Automate, giving us ready access to the growing library of over 1,400 connectors to various data sources and other systems."

This includes other Microsoft technologies, such as Copilot and AI. The IT director from the state government shared, "We continue to reap the benefit of being part of the Microsoft ecosystem, because it's always growing — now they're getting into Azure and AI services, and we can leverage those benefits with Power Pages."

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

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	Implementation and training	\$579,040	\$6,723	\$6,723	\$6,723	\$599,210	\$595,760
Ftr	Licensing and maintenance	\$0	\$882,000	\$882,000	\$882,000	\$2,646,000	\$2,193,403
	Total costs (risk- adjusted)	\$579,040	\$888,723	\$888,723	\$888,723	\$3,245,210	\$2,789,163

IMPLEMENTATION AND TRAINING

Evidence and data. Interviewees described an initial implementation process followed by ongoing training.

- The initial implementation required a team of lower-level engineers to work for a few months to completely set up Microsoft Power Pages.
- After setting up Power Pages, organizations had to train their users, including citizen and junior developers.
- This includes additional training for net-new users throughout the investment as employees churn out.

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

- A team of 15 implementation team members works for three months to set up Power Pages.
- Upon implementation, the team of 100 web developers and 50 citizen or junior web developers are trained for eight hours each on how to use Power Pages.
- Forrester assumes 8% employee churn year-over-year, requiring eight additional web developer FTEs and four citizen or junior developers to be trained each year.

Risks. Factors that could impact the size of this cost for organizations include:

- Size and salary of implementation team.
- Length of implementation.
- Amount of training required.
- Rate of employee churn.

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 \$596,000.

Impl	ementation And Training					
Ref.	Metric	Source	Initial	Year 1	Year 2	Year 3
E1	Implementation team members	Interviews	15			
E2	Length of implementation (months)	Interviews	3			
E3	Monthly fully-burdened blended salary of an implementation team member	TEI standard	\$10,000			
E4	Subtotal: Total implementation effort	E1*E2*E3	\$450,000			
E5	Web developer FTEs trained on Power Pages	A1*8% YoY churn	100	8	8	8
E6	Length of training (hours)	Interviews	8	8	8	8
E7	Fully-burdened hourly wage of a web developer	A4/40 hours per week	\$69	\$69	\$69	\$69
E8	Subtotal: Total cost of training full web developers	E5*E6*E7	\$55,200	\$4,416	\$4,416	\$4,416
E9	Citizen or junior web developers trained on Power Pages	B5*8% YoY churn	50	4	4	4
E10	Length of training (hours)	E6	8	8	8	8
E11	Fully-burdened hourly wage of a junior or citizen web developer	B7	\$53	\$53	\$53	\$53
E12	Subtotal: Total cost of training citizen or junior web developers	E9*E10*E11	\$21,200	\$1,696	\$1,696	\$1,696
Et	Implementation and training	E4+E8+E12	\$526,400	\$6,112	\$6,112	\$6,112
	Risk adjustment	10%				
Etr	Implementation and training (risk- adjusted)		\$579,040	\$6,723	\$6,723	\$6,723
	Three-year total: \$599,210		Three-ye	ar present va	lue: \$595,760	

LICENSING AND MAINTENANCE

Evidence and data. Interviewees told Forrester that their organizations had to dedicate lower-level engineering FTEs to maintenance and pay an annual licensing fee for usage of Microsoft Power Pages.

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

- The composite organization requires two maintenance FTEs to manage Power Pages.
- According to Power Pages' list pricing, the composite organization pays an annual licensing fee of \$600,000 for Power Pages, assuming list pricing is \$50 per 1,000 authenticated end-users monthly.
- Pricing may vary for organizations depending on the number of authenticated end users required. Reach out to Microsoft for additional information.

Risks. Factors that could impact the size of this cost for organizations include:

- Number and salary of maintenance engineer FTEs required.
- Total size of licensing fees required to pay for Power Pages.

Results. To account for these risks, Forrester adjusted this cost upward by 5%, yielding a three-year, risk-adjusted total PV (discounted at 10%) of \$2.2 million.

Lice	nsing And Maintenance					
Ref.	Metric	Source	Initial	Year 1	Year 2	Year 3
F1	Maintenance engineer FTEs required to maintain Microsoft Power Pages	Interviews		2	2	2
F2	Fully-burdened salary of a maintenance FTE	D2		\$120,000	\$120,000	\$120,000
F3	Subtotal: Maintenance costs of Power Pages	F1*F2		\$240,000	\$240,000	\$240,000
F4	Subtotal: Annual license fees for Power Pages	Composite		\$600,000	\$600,000	\$600,000
Ft	Licensing and maintenance	F3+F4	\$0	\$840,000	\$840,000	\$840,000
	Risk adjustment	↑5%				
Ftr	Licensing and maintenance (risk- adjusted)		\$0	\$882,000	\$882,000	\$882,000
	Three-year total: \$2,646,000	ree-year total: \$2,646,000 Three-year present value: \$2,193,403				

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	(\$579,040)	(\$888,723)	(\$888,723)	(\$888,723)	(\$3,245,210)	(\$2,789,163)	
Total benefits	\$0	\$3,446,510	\$3,446,510	\$3,446,510	\$10,339,530	\$8,570,960	
Net benefits	(\$579,040)	\$2,557,787	\$2,557,787	\$2,557,787	\$7,094,320	\$5,781,797	
ROI						207%	
Payback period (months)						Less than 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."

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.

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.

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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