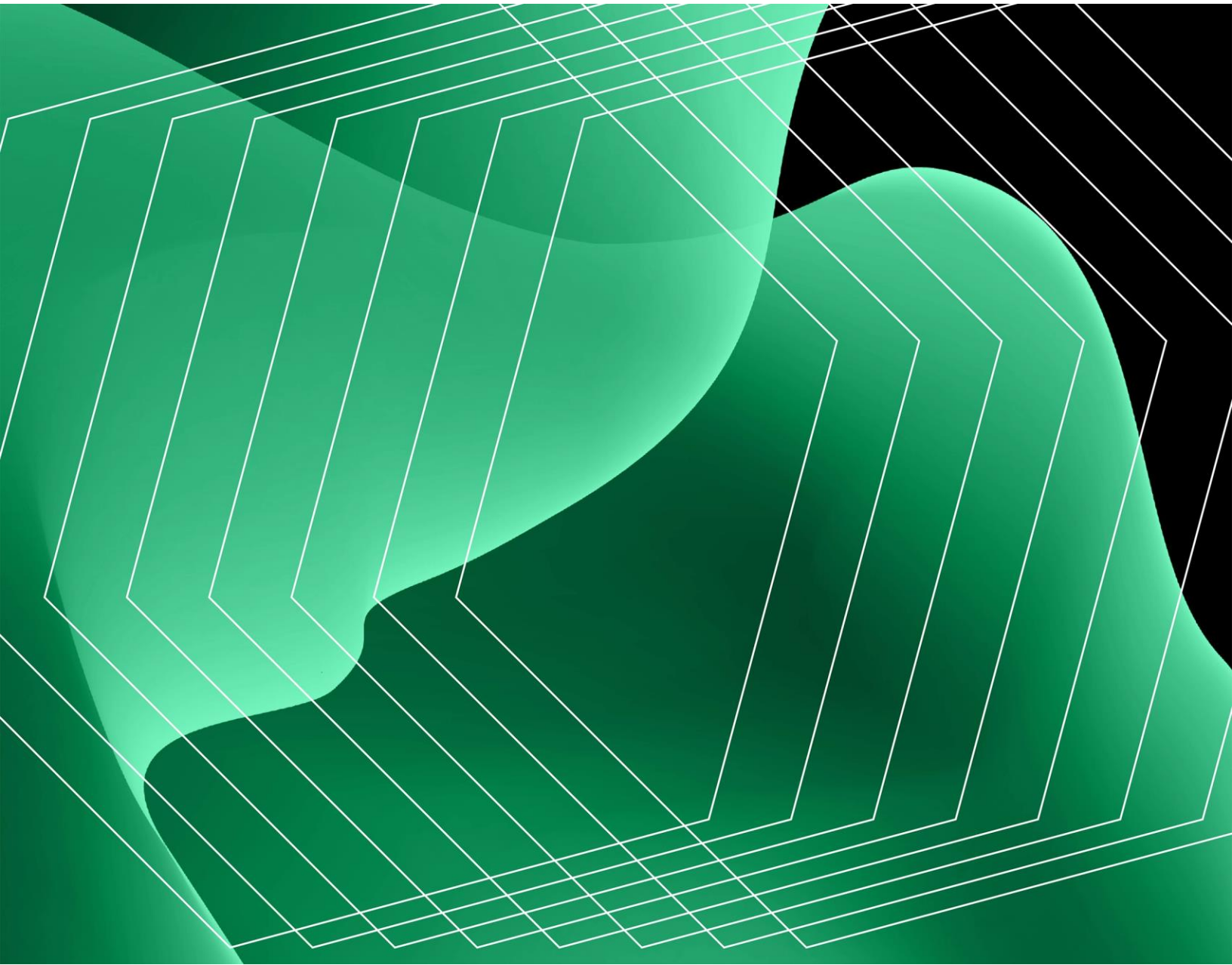
FORRESTER®

The Total Economic Impact™ Of Microsoft Power Apps

Cost Savings And Business Benefits Enabled By Power Apps

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



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ABOUT FORRESTER CONSULTING

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

Executive Summary

According to Forrester research, 89% of developers have spent at least some of their development time in the past 12 months on a low-code platform, and 79% use low-code, no-code, or digital process automation (DPA) solutions.[1] These figures indicate not just high adoption, but also a willingness among developers to self-identify as "users." Microsoft Power Apps aims to enable both professional and citizen developers with low-code development through a suite of apps, services, and connectors, as well as a data platform that provides a rapid development environment to build custom apps for a variety of business needs.

Power Apps is a suite of apps, services, connectors, as well as a data platform, that provides a rapid development environment to build custom apps to address a variety of business needs. Using Power Apps, organizations are enabled to quickly build custom business apps that connect to their data stored either in underlying data platforms or to connect to various online and on-premises data sources. Power Apps democratizes the experience of building business apps by enabling both professional and citizen developers to create feature-rich, custom business apps with less need to write code.

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 standalone Power Apps licenses.[2] The purpose of this study is to provide readers with a framework to evaluate the potential financial impact of Power Apps on their organizations.

Return on investment (ROI)
206%

Net present value (NPV)
$31.0M

To better understand the benefits, costs, and risks associated with this investment, Forrester interviewed five representatives of four companies with experience using Power Apps Premium. Additionally, Forrester interviewed eight representatives of other companies for their use of other components of the Power Platform which is inclusive of the combined benefits of using Power Apps with other tools in the platform. For the

purposes of this study, Forrester aggregated the interviewees' experiences and combined the results into a single composite organization that has 30,000 employees and $10 billion in annual revenue.

Interviewees said that prior to using Power Apps, their organizations addressed business problems either using high-code applications and manual processes with long development timelines and complexity or individuals would utilize shadow IT solutions as an unsanctioned way to solve for problems. This left them with lengthy application approval and implementation processes and the risk of shadow IT. However, prior attempts yielded limited success, leaving the organizations with lengthy application approval and implementation processes, long high-code development timelines and complexity, inefficient manual processes, and the risk of shadow IT. These limitations impacted end-user and professional developer efficiencies.

Interviewees said that after the investment in Power Apps, their organizations were enabled to address a wider range of use cases that would not have been possible previously. Key results from the investment include an increase in end-user efficiencies, professional developer efficiencies, improved compliance and governance, a reduction in shadow IT, and improved employee experience.

KEY FINDINGS

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

- **End-user time savings from Power Apps.** The composite organization uses Microsoft Power Apps in tandem with Microsoft Power Automate to design and automate complex business processes that involve multiple systems, data sources, and applications. By addressing a wide range of use cases, a small number of users benefit from very high-impact use cases, and they experience time savings of 250 hours per year (or up to 12% of their time). Meanwhile, a larger number of users employees benefit from medium-impact use cases and experience time savings of 10 hours per year. General use cases include field service, customer engagement, training, and workflow automation, among others. Over the course of three years, the time savings gained from Power Apps end user efficiencies are worth $31.3 million to the composite organization.

- **App development time reduction of 50%.** With Power Apps, the composite organization's professional developers are able to reduce the amount of time they spend building apps for internal workflows, yielding additional time savings for the organization. The integration capabilities of Power Apps eliminates the need for complex custom coding, while the interface allows developers to create and modify applications and workflows more efficiently. Over the course of three years, time savings on app development from Power Apps professional developer efficiencies are worth $14.7 million to the composite organization.

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

- **Improved compliance and governance.** Interviewees said improved compliance and governance with Power Apps allows their organizations to enforce standardized processes and workflows, which ensures adherence to regulatory requirements. They said features like data validation, access controls, and audit trails enable their organizations to maintain better control over data integrity, security, and compliance with policies and regulations.
- **Reduction in shadow IT.** Interviewees discussed how Power Apps significantly reduced the prevalence of shadow IT by providing users with a low-code development platform to create their own business applications within a controlled environment. They said that by empowering users to build custom apps within IT-approved boundaries, Power Apps reduces the need for users to seek unauthorized and unmanaged applications, thereby minimizing the risks associated with shadow IT.
- **Improved employee experience.** Interviewees discussed how Power Apps improves the employee experience by empowering users to create and customize their own applications without relying solely on IT or development teams. They said this enables employees to address their specific business needs more efficiently, fostering a sense of ownership and empowerment. Additionally, they noted that Power Apps provides a user-friendly interface, intuitive design, and seamless integration with other Microsoft tools and third-party applications, which results in a smoother and more intuitive user experience for employees interacting with the applications.

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

- **Licensing costs of $11.3 million.** The composite organization incurs licensing costs of $11.3 million for the use of Microsoft Power Apps over the course of three years.
- **Implementation and training costs.** The composite organization incurs $1.9 million in employee labor and training costs for the time devoted to managing the implementation of Power Apps along with the training of professional and citizen developers over the course of three years.
- **Ongoing management.** The composite organization incurs $1.9 million in ongoing management costs over the course of three years.

The representative interviews and financial analysis found that a composite organization experiences benefits of $46.1 million over three years versus costs of $15.1 million, adding up to a net present value (NPV) of $31.0 million and an ROI of 206%.

Reduction in app development time with Power Apps

50%

"Having low-code/no-code available through Power Apps makes for a more pleasant work environment. It raises the HSE (health, safety, and environment) satisfaction and increases our reputation as a good workplace. If we enable employees to try to fix their problems themselves, there is a much better chance that they can cover that problem in a better way."

PRODUCT OWNER, ENERGY

Return on investment (ROI)

206%

Benefits PV

$46.1M

Net present value (NPV)

$31.0M

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 Power Apps.

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 Apps 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 Apps.

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 Apps.

Interviews
Interviewed five representatives at four organizations using Power Apps 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 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.

The Microsoft Power Apps Customer Journey

Drivers leading to the Power Apps investment

Interviews				
Role	**Industry**	**Region**	**Number of employees**	**Number of Power Apps licenses**
Product owner	Energy	Global	30,000	36,000
IT leader Product owner	Energy	North America	25,000	N/A
Director	Professional services	Global	More than 100,000	150,000
Product owner	Banking	Global	45,000	46,000

KEY CHALLENGES

Interviewees said that prior to adopting Microsoft Power Apps, people at their organizations addressed business problems either through high-code applications, manual processes, or shadow IT solutions. The interviewees noted how their organizations struggled with common challenges, including:

- **Lengthy approval and implementation processes.** Interviewees noted their organizations had complex approval processes involving multiple stakeholders including architects, security, and vendor management. This led to delays in approving and implementing new applications and limited the business solutions that professional developers could provide. The product owner at an energy organization commented: “If every small team productivity or even personal productivity solution has to be made by IT professionals, you will reach a level where they can no longer deliver that and have to focus on what we call the larger fish. And then the smaller fish tend to be ignored.”

- **Long high-code development timelines and complexity.** Interviewees described difficulties in scaling solutions across their enterprises in their prior environments because developing custom applications with high-code point solutions required developer bandwidth, expertise, and extensive coding. This led to longer development timelines and increased complexity. The product owner at a banking organization said capacity constraints on their team limited the number of business problems it could address with the professional developer team: “There were so many questions coming to our backlog from all kinds of different business departments. Even if we added two or three more developers to the squad, we still could not handle all the questions.”
- **Inefficient manual processes.** Interviewees discussed how many business processes were addressed with manual and time-consuming workflows. This resulted in longer processing times and increased the risk of errors. The product owner at a banking organization described using a manual process for data collection: “We had a manual process in place so that if customers received a fake e-mail or got a fake SMS message, they could report it to us by forwarding the mail or message. We would then review each item manually for the data we needed, like telephone numbers and email addresses, to see which ones were real versus fake. It was a very time-consuming manual labor process to figure out the actual telephone number or e-mail address or to get the screenshots. With Power Apps, we were able to create a solution to identify where the telephone numbers or email addresses are in the picture, which is a huge time-saver.”
- **Shadow IT left the organizations vulnerable to additional risk with quality control and data management.** Interviewees said the challenge of managing shadow IT in their prior environments led to risks including potential data leaks as unapproved and unmanaged applications may not have had the necessary security measures in place. Additionally, shadow IT can lead to increased complexity and inefficiencies in the IT infrastructure, which makes it difficult to maintain and support the overall technology ecosystem. The product owner at an energy organization commented: “It’s that you have the issue of a bit non-IT business areas of the company making a lot of IT solutions that’s — in theory — in secret. So, that means that when it comes to quality of the solutions and quality of the data that you’re producing, it’s not followed up in a proper way.”

- **Lack of integration with existing tools and systems.** Interviewees said a lack of integration with existing tools and systems required their organizations to develop custom solutions to bridge the gap and make applications accessible from a unified user interface. However, this approach led to scalability issues and fragmented user experiences. The director at a professional services organization commented: “In our prior ecosystem, it was not inherently easy to integrate various apps and services without some custom solutions. So, we were doing a lot of bespoke solutioning to bring these systems together and make them accessible to end users through a unified interface.”

INVESTMENT OBJECTIVES

The interviewees’ organizations searched for a solution that could:

- Accelerate application development and reduce time to market for new solutions.
- Increase productivity by enabling employees to create their own apps and streamline processes.
- Empower citizen developers to address specific business needs and reduce reliance on IT professionals.
- Ensure governance and compliance with company policies and regulatory requirements.
- Reduce costs through accelerated software development and citizen development.
- Alleviate shadow IT by rolling out a platform that allows businesses and individual users to build their own applications while having complete control over data, app rollout, and usage.

> “Very rarely do we approach net new use cases without a low-code first mentality. Many of our recent use cases have some component of Power Platform supporting them.”
>
> **DIRECTOR, PROFESSIONAL SERVICES**

> “As a department, the future will be Power Apps. Power Apps low-code and no-code is the way forward.”
>
> PRODUCT OWNER, BANKING

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 global organization with 30,000 employees and $10 billion in annual revenue.

Deployment characteristics. The organization adopts both Microsoft Power Apps and Power Automate (another Microsoft Power Platform tool) to address a wide range of use cases. The composite gradually trains 200 professional developers and 1,800 citizen developers to use Power Apps.

Key Assumptions

30,000 employees

$10 billion annual revenue

200 professional developers

1,800 citizen developers

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	Power Apps end-user efficiencies	$6,507,600	$13,015,200	$19,522,800	$39,045,600	$31,340,132
Btr	Power Apps professional developer efficiencies	$5,923,125	$5,923,125	$5,923,125	$17,769,375	$14,729,935
	Total benefits (risk-adjusted)	$12,430,725	$18,938,325	$25,445,925	$56,814,975	$46,070,067

POWER APPS END-USER EFFICIENCIES

Evidence and data. Interviewees said their organizations leveraged the connection of Power Apps with Power Automate to address and streamline a wide range of use cases. The interviewees noted that Power Apps provided a platform to create custom apps tailored to specific business processes and that some use cases only require Power Automate entitlements in Power Apps, while others require a Power Automate standalone license. Interviewees said that using both Power Apps and Power Automate allowed their organizations to integrate data from different sources and trigger automated approval and notification processes, expanding the range of processes they could digitize. This led to time savings for non-technical "makers" who were able to easily build custom applications and productivity gains for the applications' end users whose work was streamlined with the applications built.

- The product owner at an energy organization said Power Apps allows for faster application development because end users don't waste time waiting for a high-code app to be developed or spend time on inefficient processes. They commented: "I think the key is that it enables a very interactive space with the end user. So, you don't necessarily have to go into these quite big loops with the end user and hitting and missing on the design, hitting and missing on the look, or hitting and missing on the button."

- The product owner in banking described a manual reorganization process in their organization's human resources department that improved significantly with Power Apps. The interviewee explained that this process previously took three to six weeks with 10 FTEs involved but that it was reduced to one hour with only two FTEs involved as the result of an application built with Power Apps. The product owner commented, "We created the app to automate this reorganization process, and that massively increased the time to market and the accuracy and quality of their calculations."
- The product owner at an energy organization described how employees are enabled to bring Power Apps into their everyday work by leveraging standard connectors. They commented: "I started from scratch and built an app that was leveraging standard connectors, and I used Power Automate to handle notifications, callbacks, and everything else. With this solution, staff can manage their inventory, and they can manage the whole process of getting something repaired. This solution is saving about a million dollars for our organization — a third of which is employee time savings."
- The director at a professional services firm described the impact of Power Apps across their organization's employees: "Power Automate's extensibility and connectivity with SharePoint, Word, Excel, and PowerPoint drove a ton of efficiency when our users needed to access and update legacy files. We built an application that could point to a cloud drive full of legacy documents and, with a few clicks of a button, migrated off of those to the latest Microsoft version. ... Previously, we would have relied heavily on our central IT function to support this. Our app lessened that reliance and drove a more efficient process."

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

- In addition to Power Apps, the composite organization adopts Power Automate. While it sees standalone employee time savings from using Power Apps, it maximizes productivity gains by using the two tools synchronously.
- The composite's end-user time savings include both productivity gains for non-professional developers who make custom applications and the end users who use those applications.

- The composite's time savings vary significantly depending on the specific tasks streamlined with Power Apps, but they tend to be heavily concentrated in certain use cases. Depending on the employee and use case, the organization's time savings can vary from a few hours per employee per year to several hundred hours per year. To account for this, Forrester assumes the composite's employees involved in high-impact Power Apps use cases see average time savings of 250 hours per year, which is approximately a 12% productivity lift. Employees involved in medium-impact use cases see average time savings of 10 hours per year.
- Of the composite's 30,000 employees, 4.4% are in roles that see high-impact time savings from using Power Apps in Year 1. This percentage grows to 8.8% in Year 2 and to 13.2% in Year 3.
- In Year 1, 17.6% of the composite's employees are involved in medium-impact use cases. This percentage grows to 35.2% in Year 2 and to 52.8% in Year 3.
- This study has not included measurement of low-impact use cases where benefits are difficult to quantify.
- The fully burdened hourly rate of a business end user is $40.
- The composite has a 50% productivity recapture rate because not all saved time is redeployed productively.

Risks. The degree of time savings users will see from Power Apps will vary depending on:

- Whether or not the organization uses Microsoft Power Apps alongside Microsoft Power Automate with premium capabilities.
- The number and impact of use cases that the organization pursues.
- The fully burdened hourly rates of impacted employees.

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 $31.3 million.

250 hours

Annual time savings per employee for high-impact use cases

"Our intent is not to reduce workforce with these tools; it's to make all of our people more efficient or able to focus on more strategic activities."

DIRECTOR, PROFESSIONAL SERVICES

Power Apps End-User Efficiencies					
Ref.	**Metric**	**Source**	**Year 1**	**Year 2**	**Year 3**
A1	Total employees	Composite	30,000	30,000	30,000
A2	Percentage of employees affected by high- or medium-impact solutions built with Power Apps	Composite	22%	44%	66%
A3	Total users affected by high- or medium-impact solutions	A1*A2	6,600	13,200	19,800
A4	Percentage of employees impacted by high-impact Power Apps solutions	A2*20%	4.4%	8.8%	13.2%
A5	Average time saved per end user impacted by high-impact Power Apps solutions (hours)	Interviews	250	250	250
A6	Total end-user time saved with high-impact Power Apps solutions (hours)	A1*A4*A5	330,000	660,000	990,000
A7	Average fully burdened hourly rate for a business end user	TEI standard	$40	$40	$40
A8	Productivity recapture	TEI standard	50%	50%	50%
A9	Subtotal: End-user efficiencies from Power Apps for high-impact use cases	A6*A7*A8	$6,600,000	$13,200,000	$19,800,000
A10	Percentage of employees impacted by medium-impact Power Apps solutions	A2-A4	17.6%	35.2%	52.8%
A11	Average time saved per end user impacted by medium-impact Power Apps solutions (hours)	Interviews	10	10	10
A12	Total end-user time saved with medium-impact Power Apps solutions (hours)	A1*A10*A11	52,800	105,600	158,400
A13	Subtotal: End-user efficiencies from Power Apps for medium-impact use cases	A7*A8*A12	$1,056,000	$2,112,000	$3,168,000
At	Power Apps end-user efficiencies	A9+A13	$7,656,000	$15,312,000	$22,968,000
	Risk adjustment	↓15%			
Atr	Power Apps end-user efficiencies (risk-adjusted)		$6,507,600	$13,015,200	$19,522,800
	Three-year total: $39,045,600			**Three-year present value: $31,340,132**	

POWER APPS PROFESSIONAL DEVELOPER EFFICIENCIES

Evidence and data. Interviewees reported that Power Apps' simple user interface, low-code functionalities, and integration capabilities allowed their organizations to reduce the amount of effort required to build applications to address internal workflows. Professional developers gained the ability to leverage prebuilt templates, reusable components, and drag-and-drop functionality in conjunction with traditional code extensibility to quickly build and deploy robust applications. Interviewees said this

accelerates their work and allows them to spend more attention on more complex and critical development tasks.

- The product owner at an energy organization described the range of capabilities that Power Apps has for professional developers as it relates to traditional development: “It’s easy to assume that Power Apps is just for citizen developers, but, of course, it’s also for IT professionals. You can use Power Apps for prototyping or you can use it for full development. This inspires IT professionals by giving them showcases and showing them how it’s been done in other places.”
- The same interviewee highlighted the shift toward low-code development in their IT organization: “If we go four years back, when the first Power Apps appeared, it was very non-IT. So, it’s mostly the business areas and engineers making Power Apps and operating themselves appearing all over the place. Now, IT delivers most of the low-code/no-code solutions.”
- The same interviewee highlighted the speed of development with Power Apps compared to high-code app development: “If we estimate the number of hours that we spend making something in low-code versus the number of hours we spend in high-code, then I will say that a rough estimate is around half.”

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

- The composite organization has a team of 200 professional developers who devote 75% of their time to building apps for internal workflows.
- With Power Apps, these developers are able to build applications 50% faster than they could before.
- The average fully burdened annual salary of one of these developers is $175,500.
- The composite has a 50% productivity recapture rate.

Risks. The professional developer time savings will vary depending on:

- The number of professional developers who automate workflows with Power Apps.

- The average fully burdened salaries of these developers.

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 $14.7 million.

50%

Reduction in professional developer app development time with Power Apps

"Our chief engineer of IT decided they wanted an alternative to what they call high-code. They want something low-code to see if they could make things simpler."

PRODUCT OWNER, ENERGY

Power Apps Professional Developer Efficiencies					
Ref.	**Metric**	**Source**	**Year 1**	**Year 2**	**Year 3**
B1	Professional developers dedicated to building apps for internal workflows	Composite	200	200	200
B2	Percent of professional developer time dedicated to building apps for internal workflows in the prior environment	Composite	75%	75%	75%
B3	Percent reduction in app development time with Power Apps	Interviews	50%	50%	50%
B4	Average fully burdened salary for a professional developer	Composite	$175,500	$175,500	$175,500
B5	Productivity recapture	TEI standard	50%	50%	50%
Bt	Power Apps professional developer efficiencies	B1*B2*B3*B4*B5	$6,581,250	$6,581,250	$6,581,250
	Risk adjustment	↓10%			
Btr	Power Apps professional developer efficiencies (risk-adjusted)		$5,923,125	$5,923,125	$5,923,125
	Three-year total: $17,769,375			**Three-year present value: $14,729,935**	

UNQUANTIFIED BENEFITS

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

- **Improved compliance and governance.** Interviewees highlighted improved compliance and governance with Power Apps as a benefit because it allows their organizations to enforce standardized processes and workflows, which ensures adherence to regulatory requirements. They said features like data validation, access controls, and audit trails, enable their organizations to maintain better control over data integrity, security, and compliance with policies and regulations. The director at a professional services organization commented: “It has allowed us to govern in a way that we deem safe and appropriate for our organization. Our single person dependency risk is mitigated as all solutions live in cloud native environments as opposed to on individual's desktops.”

  The product owner at a banking organization said it is easier to ensure compliance and governance with sensitive data used in Power Apps: “We have a mandatory step in our Power Apps creation process. We enable an app to say: ‘Hey, you’re managing a highly sensitive app or sensitive data in your app. You need to go to architecture, you need to go do this privacy process, and you need to double check with your solution and security architect.’ Otherwise, the app is marked ‘not compliant.’”

- **Reduction in shadow IT.** Interviewees discussed how Power Apps significantly reduced the prevalence of shadow IT by providing users with a low-code development platform to create their own business applications within a controlled environment. They said that by empowering users to build custom apps within IT-approved boundaries, Power Apps reduces the need for users to seek unauthorized and unmanaged applications, thereby minimizing the risks associated with shadow IT. The product owner at an energy organization commented: “By removing shadow IT, you’re actually reducing risks — both from a security of data and application — right at the same time you’re giving a very powerful tool into the hands of people. Now that we have a proper training program, we have proper control of who we let into certain environments, and we have the right framing around the people who have access. This helps to reduce security risk.”

- **Improved employee experience.** Interviewees discussed how Power Apps improved the employee experience at their organization by empowering users to create and customize their own applications without relying solely on IT or development teams. They said this enables employees to address their specific business needs more efficiently, which fosters a sense of ownership and empowerment. Additionally, they said Power Apps provides a user-friendly interface, intuitive design, and seamless integration with other Microsoft tools, which results in a smoother and more intuitive user experience for employees interacting with the applications.

  The product owner at an energy organization commented: “The most important thing is that it makes our employees happier. They’re able to influence their work in a more improved way than before. They can help themselves remove repetitive tasks and things that seem unnecessary by automation. They can make applications that help them in a day. They can share it with their friends rather than kind of being stuck with the problems forever and feeling that nobody helps them.”

> “I think the time to market is quicker than it was before, but it’s very difficult to really make that smart. We covered the gap with security and architects and privacy with Power Platform to really make sure that what people do is in line with the processes that are applicable in the bank.”
>
> **PRODUCT OWNER, BANKING**

FLEXIBILITY

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

- **Replacing legacy applications with applications built on Power Apps.** While not included in the financial model, interviewees described ways that Power Apps may save their organizations money in the future by replacing legacy applications. They stated that Power Apps offers a modern and flexible platform for building new applications that can replicate or enhance the functionalities of the legacy systems. They also said that its ability to connect to various data sources and integrate with existing systems would allow their organizations to gradually transition from legacy apps to more modern and agile solutions. The product owner at a banking organization commented: "We took a look at all our apps and started to ask: 'Should we keep them? What technology are they on? What happens if we move them to the cloud and can we rebuild them with Power Apps?' Some apps we have started to rebuild and some apps we closed."

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

> "For simple processes, citizen developers can build the stuff that annoys them or the stuff that makes their work more efficient or the day more fun. The tools are there and the system is available. We have had no big impediments or issues in the last six years."
>
> PRODUCT OWNER, BANKING

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**
Ctr	Power Apps licensing costs	$0	$4,536,000	$4,536,000	$4,536,000	$13,608,000	$11,280,361
Dtr	Power Apps implementation and training costs	$1,164,491	$483,872	$316,800	$0	$1,965,163	$1,866,193
Etr	Power Apps ongoing management	$0	$772,200	$772,200	$772,200	$2,316,600	$1,920,347
	Total costs (risk-adjusted)	$1,164,491	$5,792,072	$5,625,000	$5,308,200	$17,889,763	$15,066,901

POWER APPS LICENSING COSTS

Evidence and data. Interviewees' organizations incurred licensing costs for using Power Apps. Power Apps licensing includes various features and options depending on the specific licensing plan. These Power Apps standalone licenses generally provide access to the Power Apps platform and allow users to create, customize, and run canvas- and model-driven apps.

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

- The composite organization incurs licensing costs of $4.32 million per year for Power Apps.
- The composite deploys Power Apps and Power Automate, but this study only includes costs attributable to Power Apps.
- The composite sees benefits of using Power Apps and Power Automate together.
- Pricing may vary. Contact Microsoft for more details.

Risks. Licensing costs will vary depending on:

- The organization's size and use case.
- The specific features and capabilities of the organization's licensing plan, such as access to AI Builder and the level of data capacity and usage.

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 $11.3 million.

Power Apps Licensing Costs						
Ref.	**Metric**	**Source**	**Initial**	**Year 1**	**Year 2**	**Year 3**
C1	Power Apps licensing costs	Composite	$0	$4,320,000	$4,320,000	$4,320,000
Ct	Power Apps licensing costs	C1	$0	$4,320,000	$4,320,000	$4,320,000
	Risk adjustment	↑5%				
Ctr	Power Apps licensing costs (risk-adjusted)		$0	$4,536,000	$4,536,000	$4,536,000
	Three-year total: $13,608,000		**Three-year present value: $11,280,361**			

POWER APPS IMPLEMENTATION AND TRAINING COSTS

Evidence and data. Interviewees reported that their organizations incurred internal labor costs for implementing Microsoft Power Apps and for training professional developers during the adoption period. They said using a Center of Excellence (CoE) helped with Power Apps adoption across their organizations and established governance policies, standards, and best practices for consistent and secure usage. They also said CoEs provide developers and users with training and enablement programs to educate employees and build a skilled workforce and that they support app creators through collaboration platforms, templates, and troubleshooting services. Together, this fostered cultures of continuous learning and drove wider adoption of Power Apps.

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

- The composite's implementation process takes 10 months to complete.
- During the implementation process, 20 software engineers devotes 30% of their time to deploying Power Apps, working on the environment setup, security, and testing.
- The average fully burdened monthly salary for a software engineer involved in implementation is $12,000.
- During the implementation period, 50 professional developers are trained to use Power Apps. By the end of Year 1, an additional 150 developers are trained. Each developer requires 12 hours of training. The average fully burdened hourly wage for a professional developer is $84.38.
- During the implementation period, 600 citizen developers are trained to use Power Apps. An additional 600 citizen developers are trained by the end of Year 1 and an another 600 are trained by the end of Year 2. Each citizen developer requires 12 hours of training. The average fully burdened hourly wage for a citizen developer is $40.

Risks. Implementation and training costs will vary depending on:

- The number of engineers involved in the implementation period.
- The number of professional and citizen developers trained to use Power Apps.
- Whether the time needed to train new professional developers is more or less than 12 hours depending on their familiarity with other tools.
- The fully burdened salaries of software engineers¸ professional developers and citizen developers.

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 $1.9 million.

Power Apps Implementation And Training Costs						
Ref.	**Metric**	**Source**	**Initial**	**Year 1**	**Year 2**	**Year 3**
D1	Total software engineers involved in Power Platform setup	Composite	20	0	0	0
D2	Time spent for planning and setup (months)	Composite	10	0	0	0
D3	Percent of time dedicated to Power Apps planning and setup	Composite	30%	0%	0%	0%
D4	Average fully burdened monthly salary for a software engineer involved in Power Platform setup	Composite	$12,000			
D5	Subtotal: Initial planning and implementation costs	D1*D2*D3*D4	$720,000	$0	$0	$0
D6	Initial Power Apps builders (professional developers)	Composite	50	150	0	0
D7	Power Platform certification time (hours)	Interviews	12	12	12	12
D8	Average fully burdened hourly rate for a professional developer involved in Power Platform setup	TEI standard	$84.38	$84.38	$84.38	$84.38
D9	Subtotal: Initial professional developer training costs	D6*D7*D8	$50,628	$151,884	$0	$0
D10	Citizen developers trained to build Power Apps	Composite	600	600	600	0
D11	Power Apps training	Composite	12	12	12	12
D12	Average fully burdened hourly rate for a business end user	TEI standard	$40	$40	$40	$40
D13	Subtotal: Citizen developer training costs	D10*D11*D12	$288,000	$288,000	$288,000	$0
Dt	Power Apps implementation and training costs	D5+D9+D13	$1,058,628	$439,884	$288,000	$0
	Risk adjustment	↑10%				
Dtr	Power Apps implementation and training costs (risk-adjusted)		$1,164,491	$483,872	$316,800	$0
	Three-year total: $1,965,163			**Three-year present value: $1,866,193**		

POWER APPS ONGOING MANAGEMENT

Evidence and data. Interviewees said their organizations incur ongoing management costs that include those for monitoring and maintaining the health and performance of the Power Apps environment, ensuring data security and compliance, managing user access and permissions, and implementing updates and enhancements to keep the applications up to date. Additionally, ongoing management involves providing user support, troubleshooting issues, and gathering feedback for continuous improvement.

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

- The composite has four professional developers involved in ongoing management of Power Apps.
- The fully burdened annual salary for a professional developer involved in ongoing management is $175,500.

Risks. The ongoing management costs will vary depending on the fully burdened salaries of professional developers involved in ongoing management of Power Apps.

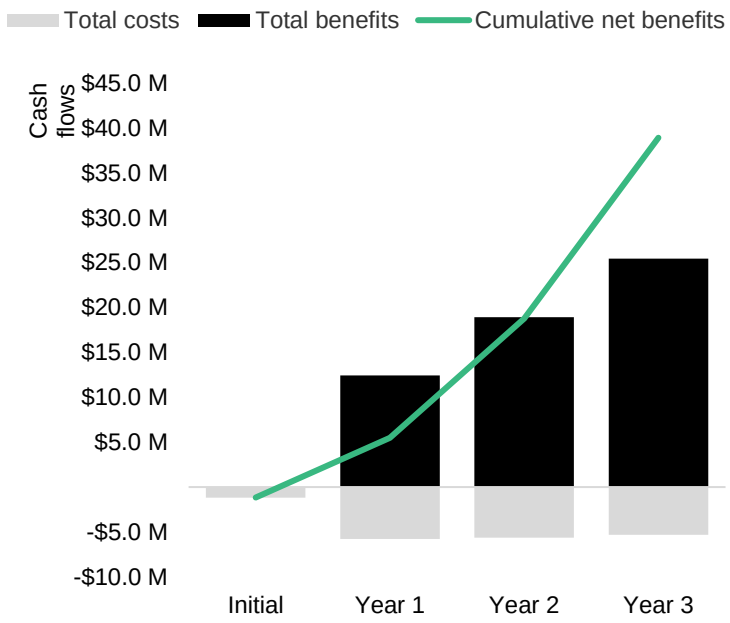
Results. To account for these risks, Forrester adjusted this cost upward by 10%, yielding a three-year, risk-adjusted total PV (discounted at 10%) of $1.9 million.

Power Apps Ongoing Management						
Ref.	**Metric**	**Source**	**Initial**	**Year 1**	**Year 2**	**Year 3**
E1	Professional developers involved in ongoing management of Power Apps	Composite	0	4	4	4
E2	Fully burdened salary for a professional developer	TEI standard		$175,500	$175,500	$175,500
Et	Power Apps ongoing management	E1*E2		$702,000	$702,000	$702,000
	Risk adjustment	↑10%				
Etr	Power Apps ongoing management (risk-adjusted)		$0	$772,200	$772,200	$772,200
	Three-year total: $2,316,600			**Three-year present value: $1,920,347**		

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	($1,164,491)	($5,792,072)	($5,625,000)	($5,308,200)	($17,889,763)	($15,066,901)
Total benefits	$0	$12,430,725	$18,938,325	$25,445,925	$56,814,975	$46,070,067
Net benefits	($1,164,491)	$6,638,653	$13,313,325	$20,137,725	$38,925,212	$31,003,166
ROI						206%
Payback						<6 months

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] Source: The Low-Code And Digital Process Automation Market, 2023 To 2028, Forrester Research Inc., January 10, 2024.

[2] 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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