

A Forrester Total Economic Impact™
Study Commissioned By Sage
June 2020

The Total Economic Impact™ Of Sage 100cloud

Cost Savings And Business Benefits
Enabled By Sage 100cloud

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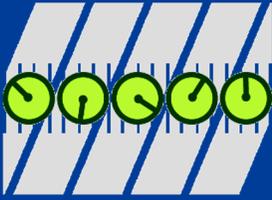
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Executive Summary

Key Benefits



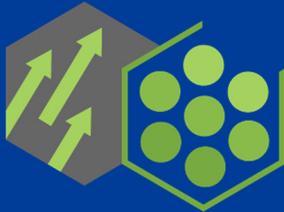
Inventory management and cost containment savings:

\$548,570



Accounting and reporting automation efficiencies:

\$152,066



IT and legacy system savings:

\$73,298



Mobile integration productivity improvement:

\$116,708

Sage 100cloud is an enterprise resource planning (ERP) and business management solution for mid-sized manufacturers, distributors, and service businesses. The solution can be customized to fit the needs of businesses through its source-available code base, business objects framework, and representational state transfer (REST) APIs. Sage 100cloud is a cloud-connected solution tailored to serve small and medium-sized businesses (SMBs) looking to preserve the feature-richness and customizability of an on-premises or hosted solution while also pursuing nondisruptive cloud innovation.

Sage commissioned Forrester Consulting to conduct a Total Economic Impact™ (TEI) study and examine the potential return on investment (ROI) enterprises may realize by deploying Sage 100cloud. The purpose of this study is to provide readers with a framework to evaluate the potential financial impact of Sage 100cloud on their organizations.

To better understand the benefits, costs, and risks associated with this investment, Forrester interviewed several customers with years of experience using Sage 100cloud. Prior to using Sage 100cloud, the customers used disconnected and heavily customized legacy systems, and they preferred to manually manage supply chains and manufacturing processes with spreadsheets. The organizations considered compliance and security to be top of mind when they were looking for a new ERP system, and they wanted to find a solution that could cover as many needs as possible at one price point.

Key Findings

Quantified benefits. The following risk-adjusted present value (PV) quantified benefits are representative of those experienced by the companies interviewed:

- › Better visibility and business alignment drive a 15% reduction in inventory holding costs and a 4% to 6% increase in productivity for inventory-related resources. Interviewees experienced improvements across the board for their supply chain management — from reducing stockouts and minimizing excess to better managing of purchasing contracts. The chief strategy and marketing officer of a high-tech manufacturer said, “We’ve seen better process alignment in the supply chain between distribution, suppliers, and managing purchasing contracts, as well as delivering products into our network of customers.” Over three years, the impact on the composite organization is over \$548,000.
- › Reporting automation reduces reporting efforts by two-thirds and accounting tools provide a 15% to 25% lift for finance resources. Reporting capabilities within Sage 100cloud automate repetitive tasks, reduce spreadsheet chaos, and consolidate necessary data into one location for a holistic view of the business. Over three years and across five accounting resources, the impact to the composite company is more than \$152,000.
- › **Decommissioned legacy systems save \$4,000 per month and free IT resources to work on other value-added tasks.** The composite organization consolidates data sprawl and decommissions legacy point solutions. Over three years and after decommissioning 70% of its legacy systems, the impact to the company is more than \$73,000.



ROI
176%



Benefits PV
\$890,642

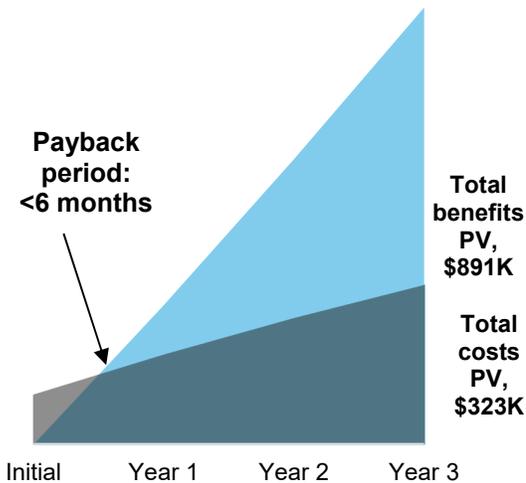


NPV
\$567,523



Payback
<6 months

Financial Summary



- › **Mobile access empowers sales team and saves each 30 minutes a day.** The composite organization provides mobile integrations to 10 sales representatives. With access to customer information, customer context, and Office 365 tools, they save 30 minutes each day. Over three years, the impact to the composite company is more than \$116,000.

Unquantified benefits. The interviewed organizations experienced the following benefits, which are not quantified for this study:

- › Improved customer experience.
- › Revenue growth.
- › Ability to attract new talent.
- › Better compliance management.

Costs. The interviewed organizations experienced the following risk-adjusted PV costs:

- › **Premium edition licensing for 30 seats at \$81 per month.** Over three years, total licensing costs to the composite organization are less than \$80,000.
- › **Third-party services and internal implementation.** The organization engages the help of a Sage partner to assist with the Sage 100cloud implementation for \$25,000, and it pays \$15,000 annually for ongoing services. The internal implementation team is made up of five resources who spend approximately 30% of their time over the course of three months to deploy Sage 100cloud. Over three years, the implementation and professional services cost the organization less than \$115,000.
- › **Administration and maintenance performed by two internal resources.** Supplemented by a Sage partner, the organization dedicates just 10% of two internal resources to administration and management of the platform. Over three years, the labor to maintain the platform costs the organization \$52,000.
- › **Upfront three-day training and 4-hour quarterly ongoing learning.** The organization requires all Sage users to attend a three-day training to learn the software, and then it provides access to online learning tools for ongoing education. The three-year cost to the organization is over \$76,000.

Synopsis. Forrester's interviews with four existing customers and subsequent financial analysis found that a composite organization based on these interviewed organizations would experience benefits of \$890,642 over three years versus costs of \$323,199, adding up to a net present value (NPV) of \$567,523 and an ROI of 176%.

The TEI methodology helps companies demonstrate, justify, and realize the tangible value of IT initiatives to both senior management and other key business stakeholders.

TEI Framework And Methodology

From the information provided in the interviews, Forrester has constructed a Total Economic Impact™ (TEI) framework for those organizations considering implementing Sage 100cloud.

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 Sage 100cloud can have on an organization:



DUE DILIGENCE

Interviewed Sage stakeholders and Forrester analysts to gather data relative to Sage 100cloud.



CUSTOMER INTERVIEWS

Interviewed four organizations using Sage 100cloud to obtain data with respect to costs, benefits, and risks.



COMPOSITE ORGANIZATION

Designed a composite organization based on characteristics of the interviewed 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 interviewed organizations.



CASE STUDY

Employed four fundamental elements of TEI in modeling Sage 100cloud's impact: benefits, costs, flexibility, and risks. Given the increasing sophistication that enterprises have regarding ROI analyses related to IT investments, Forrester's TEI methodology serves to provide a complete picture of the total economic impact of purchase decisions. Please see Appendix A for additional information on the TEI methodology.

DISCLOSURES

Readers should be aware of the following:

This study is commissioned by Sage 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 Sage 100cloud.

Sage 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.

Sage did not provide the customer names for the interviews and did not participate in the interviews.

The Sage 100cloud Customer Journey

BEFORE AND AFTER THE SAGE 100CLOUD INVESTMENT

Interviewed Organizations

For this study, Forrester conducted four interviews with Sage 100cloud customers. Interviewed customers include the following:

INDUSTRY	INTERVIEWEE	REVENUE	GEOGRAPHY	SIZE
High-tech manufacturing	Chief strategy and marketing officer	\$300 million	USA headquarters, global operations	1,800 employees, 250 Sage users
Manufacturing	Chief information officer (CIO)	\$110 million	USA headquarters, North American and China operations	675 employees, 150 Sage users
Financial institution	Information security officer (ISO)	\$340 million	USA headquarters, North America operations	8,500 employees, 2,000 Sage users
Manufacturing	Global VP of technology procurement	\$20 billion	UK headquarters, global operations	17,000 employees, 2,000 Sage users

Key Challenges

Before the investment in Sage 100cloud, interviewees used a combination of disconnected business management tools, resource planners, and homegrown solutions. The interviewed organizations also relied heavily on entry-level accounting software and spreadsheets to manually manage their businesses. The interviewees found these solutions to be the source of several challenges.

- › **Technology and process silos undermined planning and management efforts.** The chief strategy and marketing officer told Forrester: “Our biggest challenge was the struggle to streamline processes. Since documentation was not standardized, we were not able to link operations across different sites and different vendors or from engineering to production.” The lack of system collaboration and end-to-end visibility resulted in negative downstream effects felt across the organization — from stockouts to poor contract management.
- › **There were growing compliance and regulatory concerns.** The compliance landscape for businesses is complex and continuously changing. The global VP of technology procurement said, “We had a realization that we needed to become more compliant in the industry to avoid issues that could lead to litigation, government fines, or reputation issues.”
- › **Managing disparate systems led to high operational expenses.** As described by the chief strategy and marketing officer: “The other challenge we faced was administration of the legacy system and managing the data efficiently. [With] the previous solution we had — although it was reasonably good — we ran into issues with respect to management, and the cost was too much for what we got in return.”

- › **Supply chain management was inefficient.** Supply chain management in the legacy environment was manual, difficult to consolidate, and it provided dated information. The organizations managed vendor relationships at the individual level and relied on long-term relationships rather than competitive analysis. The chief strategy and marketing officer said, “Predicting inventory and managing forecasting posed a whole bunch of challenges from both the business side and the technology side as well.”
- › **Reporting capabilities were poor.** Historical reporting in the legacy environment was difficult to access and compile, and it required third-party software tools. The CIO said: “One of the problems we kept running into was if you wanted customized reports, you had to get in and know what data was available and in what buckets. We had to use third-party tools in order to interface with the data or to create a report. As a pain point, it was really bad.”

Why Sage?

The interviewed organizations evaluated potential ERP solutions, and they ultimately decided to move forward with Sage 100cloud for the following reasons:

- › **It’s built for today’s business challenges.** Interviewees needed an enterprise resource planning solution to keep up with today’s business models. “We looked for a platform that is innovative and understands our business model and challenges,” said the information security officer of a financial institution. “We have traditionally operated with structured data sets. Fast-forward to today, and now we ingest unstructured data sets, which enrich the data and the analytics about a market or product, as well as our own clientele. So, the ERP platform needed to be robust enough to understand the traditional business-as-usual items, as well as new challenges.”
- › **It’s designed to help automate and drive cost efficiencies.** Cost reduction was the primary priority for interviewed manufacturers when they evaluated an ERP. The chief strategy and marketing officer noted: “One reason we chose Sage is for its product features and functionality. It gives visibility into the data, integrates manufacturing operations, standardizes procedures, and helps with quality control, all while enabling better cost reduction. These are the areas that Sage addresses very effectively.”
- › **It minimizes IT and consulting spending.** SMBs with lean IT departments rely on vendors to provide necessary technology support. For the global VP of technology procurement, avoiding unnecessary IT and consulting spending was a key criterion for ERP selection. He told Forrester: “We tried to find a system that is amenable to an operation, that doesn’t want to spend huge amounts of money on consultants and wants to minimize the IT budget. So that’s where Sage came into play.”
- › **Sage support is responsive.** In addition to the IT spending noted above, interviewees evaluated the quality of Sage’s support during vendor selection. “The second area we evaluated was the ease of doing business and the support operations of Sage,” said the chief strategy and marketing officer. “I give Sage high scores because it has a very good support team. They address and resolve issues very quickly, and they have a proactive approach.”

“The best bang for the buck we found was Sage 100cloud, and that’s why we switched. We wanted something that was smooth, easy, and functionally capable of doing what we need quickly. Sage is that sweet spot.”

Chief strategy and marketing officer, high-tech manufacturing



“We looked at alternative products but, ultimately, working with the Sage integrators, we were happy with the way that we could seamlessly interface with the product, the built-in accountability, and the future road map.”

CIO, manufacturing



Investment Objectives

Interviewees shared the top three organizational goals and objectives of a new ERP system. They include:

- › **Improving coordination and increasing visibility across business processes.** The global VP of technology procurement said: “Our No. 1 goal was to get better visibility into our business. We felt that there were a lot of inefficiencies and opportunities falling through the cracks.” As a business management system, Sage’s inventory, CRM tools, and integrations for coordinating business functions within a single system would help provide end-to-end visibility.
- › **Driving cost efficiencies and productivity.** With stakeholders focused on bottom-line impact, the chief strategy and marketing officer told Forrester, “We expect Sage to help us achieve better operational productivity at a lower cost through order management, ability to track product cost, inventory control, and even project costing.” Customers noted that finessing these areas drives margin improvements.
- › **Aiding with governance, risk, and compliance efforts.** Compliance and security are foundational to an organization’s reputation, and mistakes have the potential to ruin a company. Interviewees anticipated Sage would improve efforts around compliance. The chief strategy and marketing officer said: “We have so many different compliance policies and procedures. So, we expected Sage to give us insights, either directly from the application or through integrations into compliance applications, to provide that insight.”

“So, the goal of the Sage investment is to advance this business, but not to increase the cost to an extent that overwhelms it or takes away from its ability to focus on core business.”

Global VP of technology procurement, manufacturing



“We expect our ERP system to have an impact on our cost structure, streamline and improve efficiencies, and ultimately translate into profitability and better productivity.”

Chief strategy and marketing officer, high-tech manufacturing



Composite Organization

Based on the interviews, Forrester constructed a TEI framework, a composite company, and an associated ROI analysis that illustrates the areas financially affected by the Sage 100cloud investment. The composite organization is representative of the four companies that Forrester interviewed, and it is used to present the aggregate financial analysis in the next section. Please note: Forrester purposefully scaled down the composite organization (compared to the interviewed organizations) in terms of revenue and total employees to be more representative of a SMB. The composite organization that Forrester synthesized from the customer interviews has the following characteristics:

Description of composite. The composite is an established and growing US-based, medium-sized discrete manufacturer with 200 employees and \$35 million in revenue. The company has historically been slow and deliberate with its software upgrades and technological transformations. The company's priority when investing in an ERP solution was to drive cost savings and optimize internal processes.

Before state. Prior to its investment in Sage 100cloud, the composite organization used an entry-level accounting product and relied heavily on manual records and spreadsheets to manage its business operations.

Deployment characteristics. Based on the complexity of the manufacturing business, the composite requires a customized solution that can grow with the company. The composite organization licenses the Premium edition of Sage 100cloud and has 30 Sage users.

“There were certain things we needed to do to bring the company into the 21st century. There were organizational issues that we needed to restructure. There were process issues like missing protocols and guidelines. And then, finally, [there were issues with] systems. We were working largely in an old, antiquated system that had not been upgraded for years. We were on spreadsheets and homegrown applications from an unsophisticated IT department.”

Global VP of technology procurement, manufacturing



To cloud or not to cloud? That is the question.

Today's SMBs face a major dilemma: to cloud or not to cloud? When it comes to choosing an ERP, the answer is that there is no one-size-fits-all solution. According to the findings of a survey commissioned by Sage and published in May 2019, Forrester found that small to mid-sized businesses fall into three categories when it comes to the treatment of ERP solutions.

- 1) The continuous improvers, whose top priority is revenue growth. These decision makers take a cautious approach to cloud. They invest more in updating existing systems rather than new solutions.
- 2) The operators, whose top priority is to reduce cost. These decision makers are focused on optimizing internal processes and, therefore, they are less likely to make immediate changes to ERP systems.
- 3) The innovators, whose top priority is to improve CX. Companies that prioritize CX have a greater appetite for technology investments. These companies have more even interest between cloud and on-premises ERP solutions.

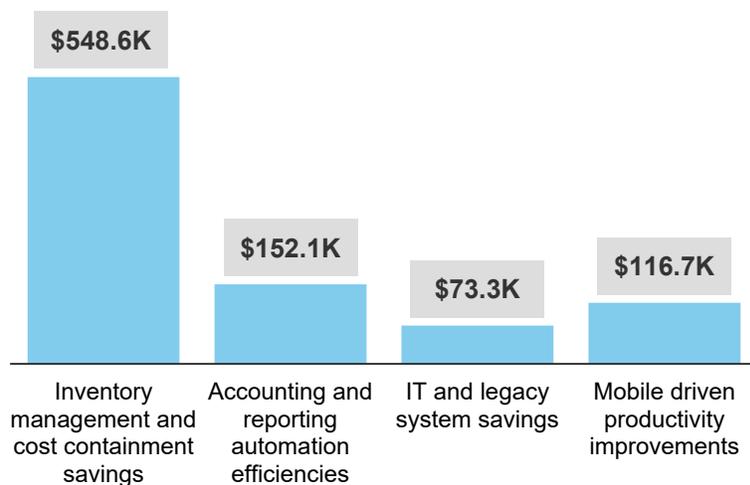
Source: “Finding the Right Technology Strategy For Your Unique Business Priorities”, a Forrester Consulting Thought Leadership Paper Commissioned By Sage, May 2019.

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	Inventory management and cost containment savings	\$187,958	\$222,799	\$257,640	\$668,396	\$548,570
Btr	Accounting and reporting automation efficiencies	\$56,498	\$60,773	\$67,186	\$184,458	\$152,066
Ctr	IT and legacy system savings	\$19,710	\$29,700	\$41,040	\$90,450	\$73,298
Dtr	Mobile-driven productivity improvements	\$46,930	\$46,930	\$46,930	\$140,790	\$116,708
	Total benefits (risk-adjusted)	\$311,096	\$360,202	\$412,796	\$1,084,094	\$890,642

Benefits (Three-Year)



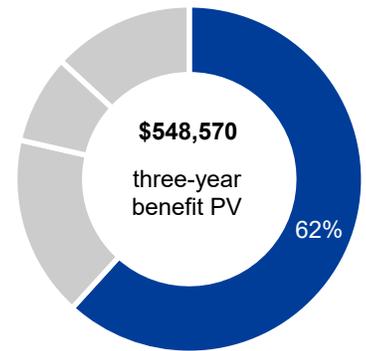
The table above shows the total of all benefits across the areas listed below, as well as present values (PVs) discounted at 10%. Over three years, the composite organization expects risk-adjusted total benefits to be a PV of more than \$890,000.

Inventory Management And Cost Containment Savings

Interviewees noted that visibility into their businesses and clearly connecting well-planned budgeting activities to actual performance improved their business alignments and had impacts across the organizations. Features like inventory-specific dashboards helped minimize stockouts, ensured that orders were placed with the right vendors, and reduced manual tracking efforts. Using predictive analytics helped interviewees to more accurately forecast demand and to quickly respond to changes. They measured the impact of Sage 100cloud in the following ways:

- › **Reduced time to fulfill orders.** With end-to-end visibility, interviewees gained access to more data than ever before, and that finally allowed them to accurately track performance metrics. The global VP of technology procurement told Forrester, “Before Sage, order management was almost all manual [on] paper and spreadsheets. Now we measure our ability to deliver to a customer on time and what percentage that is of total orders versus how often we get direct materials, direct components, and parts from our suppliers — and how often they are late. Across the board, from ordering all the way to supply, we have seen a 15 to 20 percent improvement over the way we did things before.”
- › **Reduced excess and stockouts.** Inefficient management of inventory leads to shortages or excess. When an organization cannot meet demand with given inventory, it incurs internal costs like delays, labor time wastage, and lost production, as well as harder-to-measure external costs like lost sales and poor customer experiences that lead to future profit loss. The global VP of technology procurement used Sage 100cloud to help reduce the negative effects of poor inventory management. He said: “As we get more sophisticated in using the software, we do a better job of collecting all inventory and barcoding everything. And we do a better job of doing electronic transactions. We hope to eliminate that scenario where you had a stockout at any given time.”
- › **Supply chain process improvements that impact margins.** Using Sage 100cloud for end-to-end visibility, interviewees made data-driven decisions to improve their supply chains, ultimately driving better margins. “We used Sage to improve coding and tracking processes, making sure we encode the right numbers in the bids,” said the chief strategy and marketing officer. “Overall, our profitability has been improved by using Sage 100cloud.”
- › **Operational productivity improvements.** When technology and process come together, it can have a powerful impact on those using the technology. Interviewees described how employees have used Sage to improve their day to day activities, cutting down on manual efforts and putting data at their fingertips. The previously siloed tools and teams were better able to collaborate, document, and connect the data to operations.

Modeling and Assumptions. Based on the experiences of the interviewed customers, Forrester makes the following assumptions for the financial model.



Inventory management and cost containment savings: 62% of total benefits

“Previously, fulfilling an order used to take several weeks or maybe months. That has now shrunk by 35%. The on-time deliveries have improved, which, in turn, has improved our customer relationships and helps us to secure more customer wins.”

*Chief strategy and marketing officer,
high-tech manufacturing*



“We’ve seen anywhere between 25% to 40% improvement from sales order management, inventory management, and, operationally, we are looking at how are we able to track a product cost and fulfill the orders better.”

*Chief strategy and marketing officer,
high-tech manufacturing*



Part 1: Inventory holding savings

- › The composite's average inventory levels before the Sage investment are 1% of revenues, or \$350,000.
- › With better visibility provided by Sage 100cloud, the composite can more effectively manage on-hand inventory and purchasing processes, enabling a reduction in average inventory of 10%, 15%, and 20% in years 1, 2, and 3, respectively.
- › A 15% holding cost reduction is used to capture the value of the reduction in inventory. Holding costs include expenses such as storage space, labor, and insurance, and they are components of the total inventory cost.

Part 2: Manufacturing cost savings

- › The composite organization has 200 employees, 50% of whom are involved with manufacturing tasks. Of the 100 manufacturing employees, 65% are involved with the purchasing, handling, and management of inventory.
- › The inventory-related resources experience a productivity lift of 4%, 5%, and 6%, in years 1, 2, and 3, respectively.
- › The burdened cost of a manufacturing resource is \$60,000.

Risks. The interviewed organizations each had their own measurements of success as related to inventory-related savings. Readers should consider which KPIs are most important for their business, and benefit values will vary by organization. To account for these risks, Forrester adjusted this benefit downward by 5%, yielding a three-year risk-adjusted total PV of \$548,570.

Impact risk is the risk that the business or technology needs of the organization may not be met by the investment, resulting in lower overall total benefits. The greater the uncertainty, the wider the potential range of outcomes for benefit estimates.

Inventory Management And Cost Containment Savings: Calculation Table

Ref.	Metric	Calculation	Year 1	Year 2	Year 3
A1	Average inventory level before Sage	Composite	\$310,000	\$310,000	\$310,000
A2	Reduction in average inventory levels	Interviews	10%	15%	20%
A3	Average inventory levels using Sage	A1* (1-A2)	\$279,000	\$263,500	\$248,000
A4	Reduction in inventory holding costs	Interviews	15%	15%	15%
A5	<i>Subtotal:</i> inventory holding savings (rounded value shown)	A3*A4	\$41,850	\$39,525	\$37,200
A6	Number of manufacturing floor FTEs before Sage	Composite	100	100	100
A7	Number of manufacturing employees tasked with inventory management	Composite	65%	65%	65%
A8	Increased productivity — inventory transactions	Interviews	4%	5%	6%
A9	FTE equivalents saved	A6*A7*A8	2.60	3.25	3.90
A10	Burdened cost per manufacturing floor resource	Composite	\$60,000	\$60,000	\$60,000
A11	<i>Subtotal:</i> manufacturing cost savings	A9*A10	\$156,000	\$195,000	\$234,000
At	Inventory management and cost containment savings	A5+A11	\$197,850	\$234,525	\$271,200
	Risk adjustment	↓5%			
Atr	Inventory management and cost containment savings (risk-adjusted)		\$187,958	\$222,799	\$257,640

Accounting And Reporting Automation Efficiencies

Reporting capabilities within Sage 100cloud can be automated, reducing spreadsheet chaos and consolidating necessary data into one location for a holistic view of the business. The CIO said: “The CEO and the board want to keep their fingers on the pulse of money. The joke used to be that this one-day process takes three. The end-of-the-month reporting used to start the Monday of the last week of the month, and now it literally starts on Thursday and is done in two days.”

In addition to automating regular reporting, Sage 100cloud also allows business users to monitor dashboards and pull ad hoc reports. The ISO shared: “The frontline business can use Sage to look at dashboards, run reports, and act right away, rather than wait up to a week later to react to it. That is a huge plus.” Interviewees emphasized how access to nearly real-time business information has changed their cultures and been a catalyst for data-driven decision making. The global VP of technology procurement said: “We’ve measured the success of Sage by the quality of information within the business and the ability to have a higher level of visibility and better data analytics. We’ve become more of a data-driven organization as opposed to just following intuition.”

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

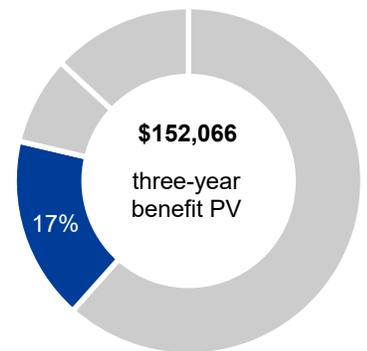
Part 1: Reporting savings

- › Before the Sage investment, a team of three accounting resources conducted reporting twice monthly over the course of three days.
- › After the Sage investment, the same team conducts bimonthly reporting over the course of one day. That is essentially a 67% reduction in time.
- › The burdened hourly cost of an accounting resource is \$36.

Part 2: Accounting team productivity improvement

- › The composite has five accounting and finance resources using Sage to perform their tasks.
- › Using Sage provides a 15%, 20%, and 25% lift to the resources in years 1, 2 and 3, respectively.
- › The burdened cost for an accounting and finance resource is \$75,000.
- › Forrester assumes a 30% productivity recapture.

Risks. The quantified improvement for accounting and finance departments will vary by organization. When estimating Sage’s impact, consider the number of accounting and finance resources and their burdened costs. Also consider the scope and extent that automation can impact reporting and other finance tasks. To account for these risks, Forrester adjusted this benefit downward by 5%, yielding a three-year risk-adjusted total PV of \$152,066.



Accounting and reporting automation efficiencies: 17% of total benefits

“Sage analysis can empower the frontline units, the rainmakers, the ones that bring in revenue. Sage empowers them specifically to have more access, more data, and analytics right at their fingertips.”

ISO, financial institution



Accounting And Reporting Automation Efficiencies: Calculation Table

Ref.	Metric	Calculation	Year 1	Year 2	Year 3
B1	Hours spent on reporting annually before Sage	3 FTE, 3 days, 2x per month	1,728	1,728	1,728
B2	Hours spent on reporting annually with Sage	3 FTE, 1 day, 2x per month	576	576	576
B3	Hours saved	B1-B2	1,152	1,152	1,152
B4	Time saved using sage	B3/B1	67%	67%	67%
B5	Hourly burdened cost of accounting resource (rounded value shown)	\$75,000/2,080 hours	\$36	\$36	36
B6	Subtotal: Reporting savings	B3*B5	\$41,472	\$41,472	\$41,472
B7	Number of accounting and finance resources	Composite	5	5	5
B8	Productivity improvement using Sage	Interviews	15%	20%	25%
B9	FTE equivalents saved (rounded value shown)	B7*B8	0.8	1.0	1.3
B10	Burdened cost of accounting resource	Composite	\$75,000	\$75,000	\$75,000
B11	Productivity recapture	Assumption	30%	30%	30%
B12	Subtotal: Accounting team productivity improvement	B9*B10*B11	\$18,000	\$22,500	\$29,250
Bt	Accounting and reporting automation efficiencies	B6+B12	\$59,472	\$63,972	\$70,722
	Risk adjustment	↓5%			
Btr	Accounting and reporting automation efficiencies (risk-adjusted)		\$56,498	\$60,773	\$67,186

IT And Legacy System Savings

A key objective of the Sage investment was to drive cost savings and minimize IT spending. In the legacy environments, interviewees had disconnected technologies and small IT teams. With a high level of customization required and several point solutions requiring maintenance, the IT teams were strained to meet demands. The chief strategy and marketing officer said Sage allowed his organization to move away from legacy tools and in-house tinkering. He told Forrester: "Our IT team has been affected mainly because Sage facilitates the operational side of things. Before Sage, we used to have IT teams create custom use-case scenario applications to manage certain activities within our logistics department. Now all of that has been taken away. We see IT productivity gains from multiple fronts."

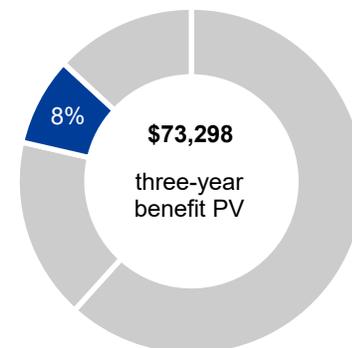
Modeling and assumptions. To capture the experiences of the interviewed organizations, Forrester makes the following assumptions for the financial model.

Part 1: Legacy system savings

- › With the investment in Sage, the composite begins to consolidate its system sprawl, decommissioning 30%, 50%, and 70% of its legacy systems in years 1, 2, and 3, respectively. The average burdened monthly cost of a legacy system is \$4,000.

Part 2: IT resources reallocated to other tasks

- › The composite's IT team is composed of five resources, and 15% of their time was dedicated to maintaining and servicing legacy systems replaced by Sage.



IT and legacy system savings: 9% of total benefits

- › As a result of the Sage investment and support from Sage partners, IT resources experience a lift of 10%, 12%, and 16% in years 1, 2, and 3, respectively.
- › The burdened cost of an IT resource is \$100,000.

Risks. When estimating the impact to the IT team, it's important to consider an organization's previous state. Organizations with little to no prior infrastructure or systems may not have any tools to retire. Vice-versa, organizations with a more siloed environment likely will have several tools, databases, or systems to decommission as a result of its Sage investment. A second characteristic to consider is the size of the existing IT team and the demands on their time in the legacy environment. Organizations with larger and more demanding IT requirements will experience a greater lift than organizations with smaller to no IT team. To account for these risks, Forrester adjusted this benefit downward by 10%, yielding a three-year risk-adjusted total PV of \$73,298.

IT And Legacy System Savings: Calculation Table

Ref.	Metric	Calculation	Year 1	Year 2	Year 3
C1	Annual spending on legacy system	\$4,000 per month	\$48,000	\$48,000	\$48,000
C2	Legacy system decommissioning rate	Interviews	30%	50%	70%
C3	Subtotal: Legacy system savings	C1*C2	\$14,400	\$24,000	\$33,600
C4	Number of IT resources before Sage	Composite	5	5	5
C5	Time dedicated to maintaining legacy systems	Interviews	15%	15%	15%
C6	Reduced time spent on managing legacy system	Interviews	10%	12%	16%
C7	FTEs saved using Sage	C4*C5*C6	0.075	0.09	0.12
C8	Burdened cost of IT resource	Composite	\$100,000	\$100,000	\$100,000
C9	Subtotal: IT resources allocated to other tasks	C7*C8	\$7,500	\$9,000	\$12,000
Ct	IT and legacy system savings	C3+C9	\$21,900	\$33,000	\$45,600
	Risk adjustment	↓10%			
Ctr	IT and legacy system savings (risk-adjusted)		\$19,710	\$29,700	\$41,040

Mobile-Driven Productivity Improvements

Sage 100cloud offers cloud connectivity and third-party integrations with products like Office 365. With access to customer information, interviewees noted that their sales teams were empowered to look up customer contact information through their mobile devices, review recent communications, and create notes for other users. Easy-to-access customer information helps Sage users deliver a better customer experience. "The mobility of our workforce around here is important. They're tethered to their mobile devices, and now they rarely miss a call — even it's from another country," said the global VP of technology procurement. "What we're seeing is that, through the use of Sage, there are better records and better response times. And, as a result, we're seeing less opportunities missed."

Modeling and assumptions. To capture the experiences of the interviewed organizations, Forrester makes the following assumptions for the financial model.

"We love the Sage mobile integration capability. We love the content and the data that empowers the individual."

ISO, financial institution

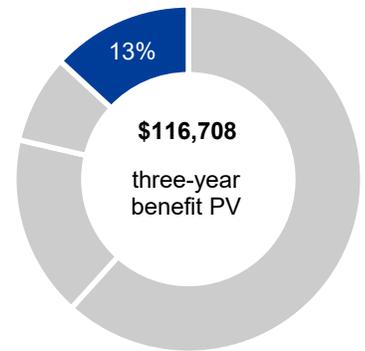


- › The composite organization has 10 sales representatives who use Sage’s mobile integrations.
- › With access to mobile customer information, notes, and communication capabilities, the sales representatives save 30 minutes each day.
- › The hourly burdened cost for a sales representative is \$38.

Risks. Depending on the risk appetite of an organization, mobile integrations may not be widely utilized. Some of the interviewees said they had reservations about adopting mobile capabilities, choosing not to use mobile integrations in order to maintain complete control over data. The chief strategy and marketing officer said: “The problem is that our business units manage all the contract manufacturing, and we are not comfortable with mobile because we may lose controls and insights. Security is another important concern we have. So, we haven’t gotten our IT staff totally comfortable with putting Sage on mobile. Yet we may look at it in the future.”

There is an upside for organizations that have the risk tolerance to allow mobile integrations. It may create better customer experiences and therefore attract greater revenues, better retention of customers, and a more productive mobile workforce.

To account for these risks, Forrester adjusted this benefit downward by 5%, yielding a three-year risk-adjusted total PV of \$116,708.



Mobile driven productivity improvements: 13% of total benefits

Mobile-Driven Productivity Improvements: Calculation Table

Ref.	Metric	Calculation	Year 1	Year 2	Year 3
D1	Number of sales representatives	Composite	10	10	10
D2	Administrative minutes saved per day with mobile integration	Interviews	30	30	30
D3	Working days in a year	Assumption	260	260	260
D4	Hours saved per year	$D1 \times D2 \times D3 / 60$ minutes	1,300	1,300	1,300
D5	Hourly burdened cost of sales representative (rounded value shown)	$\$78,750 / 2,080$ hours	\$38	\$38	\$38
Dt	Mobile driven productivity improvements	$D4 \times D5$	\$49,400	\$49,400	\$49,400
	Risk adjustment	↓5%			
Dtr	Mobile integration driven productivity improvements (risk-adjusted)		\$46,930	\$46,930	\$46,930

Unquantified Benefits

In addition to the benefits quantified in the analysis above, interviewees experienced benefits that are not included in the financial analysis but are considered to indicate successes of the Sage investment.

- › **Improved customer experience (CX).** The bar for great customer experience has been raised dramatically as companies use digital advances to create better experiences for their customers. The chief strategy and marketing officer said the investment in Sage yielded happier customers. “We do surveys and gather customer feedback, especially around on-time delivery. Sage has contributed in terms of how we have been able to improve our customer relationships and deliver things better. Our customer satisfaction (CSAT) has improved by at least 20%.”
- › **Customer obsession contributes to revenue growth.** Interviewees who prioritized customer experience with their ERP investments found that happier customers contributed to increased revenues. The chief strategy and marketing officer said, “We’ve seen increased sales because we are now able to get better customer references and CSAT has gone up.”
- › **Ability to attract new talent.** For the global VP of technology procurement, technology has brought new appeal to working at a 200-year-old company. “By implementing Sage, we feel that we are adopting 21st century technology. We’re adopting an approach to the business that appeals to the new graduates who are coming out of universities. I use Sage as a way to capture good talent in the industry because I don’t know how many times I’ve watched our HR people do an interview, and when you tell a person out of college they’re coming to a 200-year-old company that operates like a 200-year-old company, they lose interest. So Sage and other types of technologies like this are going to improve the quality of the workforce, in addition to the quality of the P&L.”
- › **Better compliance management.** Interviewees were happy to move away from their previously siloed environments and into integrated stacks. The chief strategy and marketing officer told Forrester: “Sage is not a compliance application. It’s an ERP, but it works really well with the compliance applications that we have internally. Sage connects to our third-party risk management and compliance applications, and we connect that data into the compliance application that manages the policies and makes sure we are auditing and reporting to the regulatory authorities correctly.”
- › **Supplemented internal resources with Sage support.** For organizations with smaller IT teams, the support of a knowledgeable Sage partner is a vital contribution to the success of the ERP. “Sage support has been very good,” shared the chief strategy and marketing officer. “[Support staff are] really easy to work with, proactive, and always flexible. They listen to our requests, and they seem to work easily with our partners.”



Interviewees said investing in Sage 100cloud drove several positive impacts on their organizations.

“What’s the top of my list for evaluating any type of software? The big win in my opinion is the user adoption rate. How intuitive is the software and, quite frankly, how fun is it to use?”

Global VP of technology procurement, manufacturing



Flexibility

The value of flexibility is clearly unique to each customer, and the measure of its value varies from organization to organization. There are multiple scenarios in which a customer might choose to implement Sage 100cloud and later realize additional uses and business opportunities, including:

- › **Improve working capital to free cash flow for innovation projects.**
The global VP of technology procurement noted that with visibility that Sage 100cloud provides, his organization has been able to negotiate more favorable payment terms with vendors, giving finance more control over cash flow and freeing working capital for investment in innovation projects across the organization.
- › **Harness emerging technologies at your own pace.** Sage 100cloud can be part of a deliberate and measured cloud adoption journey. While still an on-premises product, Sage 100cloud enables businesses to gradually transition both their cultures and processes to the cloud without the disruption of a full cloud transformation.
- › **Connect ERP to internet of things (IoT).** When imagining the long-term implications of an ERP investment, interviewees noted Sage's future roadmap has promising potential for IoT connections. The chief strategy and marketing officer shared his future strategic plans with Forrester, saying: "We are seeing that our industry is now transitioning into machine learning, IoT, sensor-based technologies, and RFID. We are expecting to connect the ERP system to those technologies and manage our operations better, both from a data and bottom-line perspective."

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

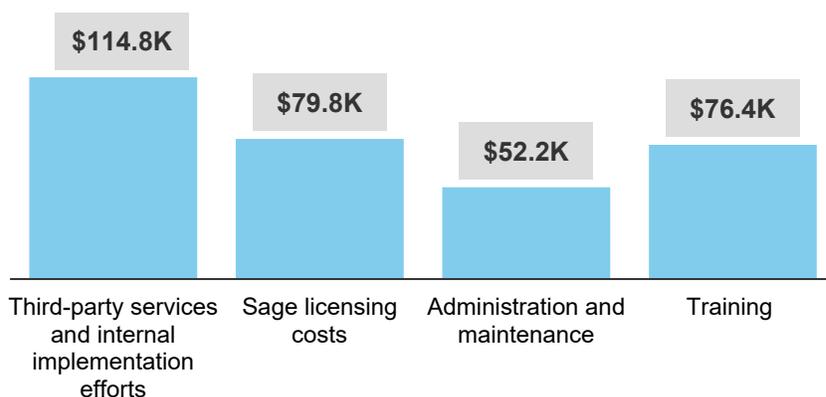
Flexibility, as defined by TEI, represents an investment in additional capacity or capability that could be turned into business benefit for a future additional investment. This provides an organization with the "right" or the ability to engage in future initiatives but not the obligation to do so.

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	Third-party services and internal implementation efforts	\$71,873	\$17,250	\$17,250	\$17,250	\$123,623	\$114,771
Ftr	Sage licensing costs	\$0	\$32,076	\$32,076	\$32,076	\$96,228	\$79,768
Gtr	Administration and maintenance	\$0	\$21,000	\$21,000	\$21,000	\$63,000	\$52,224
Htr	Training	\$28,728	\$19,152	\$19,152	\$19,152	\$86,184	\$76,356
Total costs (risk-adjusted)		\$100,601	\$89,478	\$89,478	\$89,478	\$369,035	\$323,119

Costs (Three-Year)



The table above shows the total of all costs across the areas listed below, as well as present values (PVs) discounted at 10%. Over three years, the composite organization expects risk-adjusted total costs to be a PV of more than \$323,000.

Third-Party Services And Internal Implementation Efforts

Interviewees each had a unique deployment journey, but the first step of was planning and conducting a proof of concept (POC). The chief strategy and marketing officer said: “When we started working with Sage, we did a POC. We tested for simple use cases across accounting, finance, and logistics supply chains. We did an analysis of where the integration touchpoints were, where the APIs needed to be built, and what kind of data needed to be imported and exported.” Beyond time dedicated to planning and running a POC, customers also utilized the assistance of professional services, and they dedicated efforts to data conversion.

Modeling and assumptions. Based on the experiences of the customers interviewed, Forrester makes the following assumptions for the financial model.

- › The composite enlists the help of a Sage partner to assist with the implementation of Sage 100cloud with an initial investment of \$25,000.
- › Five internal resources are tasked with the implementation of Sage, dedicating 30% of their time over the course of 90 days.
- › The monthly burdened cost of internal resources is \$8,333.
- › Each year, the composite budgets an additional \$15,000 for ongoing professional services to supplement the internal IT team.

Risks. Implementation costs vary greatly between organizations and are dependent on the complexity of the deployment, the number and scope of integrations, and the unique situations of each implementation. The higher-than-usual risk adjustment reflects the wide range of implementation costs that companies may incur. The best way to estimate the actual implementation costs is to speak directly to a Sage representative and develop an implementation plan and scope. To account for these risks, Forrester adjusted this cost upward by 15%, yielding a three-year risk-adjusted total PV of \$114,771.

“What impressed me about Sage is that [support staff members] were more concerned about getting us onboarded and actively using their software than they were with turning the implementation into a big money-making scenario. They were more focused on the end result as opposed to the bureaucracy of big software companies. And that was impressive.”

Global VP of technology procurement, manufacturing



Implementation risk is the risk that a proposed investment may deviate from the original or expected requirements, resulting in higher costs than anticipated. The greater the uncertainty, the wider the potential range of outcomes for cost estimates.

Third-Party Services And Internal Implementation Efforts: Calculation Table

Ref.	Metric	Calculation	Initial	Year 1	Year 2	Year 3
E1	Third-party services	Composite	\$25,000	\$15,000	\$15,000	\$15,000
E2	Number of internal implementation resources	Interviews	5			
E3	Time dedicated to implementation	Interviews	30%			
E4	Number of months	Interviews	3			
E5	Burdened monthly cost of resources (rounded value shown)	\$100,000/12 months	\$8,333			
Et	Third-party services and internal implementation efforts	E1+ (E2*E3*E4*E5)	\$62,499	\$15,000	\$15,000	\$15,000
	Risk adjustment	↑15%				
Etr	Third-party services and internal implementation efforts (risk-adjusted)		\$71,873	\$17,250	\$17,250	\$17,250

Sage Licensing Costs

Sage licenses its Sage 100cloud product in three tiers: Standard, Advanced, and Premium.

Standard	Advanced	Premium
The Standard edition is for companies that require a limited amount of remote access and is ideal for businesses requiring fewer than 20 users. The Standard edition can be installed and run from a single desktop workstation.	The Advanced edition is ideal for multisite business and requires no additional remote access software. Installed on a dedicated server, the Advanced edition is designed for fast and reliable data throughput and optimized for TCP/IP.	The Premium edition is ideal for businesses with heavy reporting requirements or those that need to work directly with the data stored in Sage 100cloud.

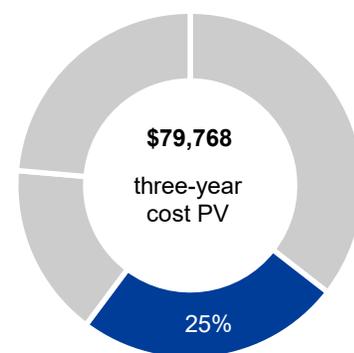
Source: Provided by Sage

Modeling and assumptions. The composite organization licenses the Premium edition of Sage 100cloud due to its heavy reporting requirements and data consumption. Forrester makes the following assumptions for the financial model.

- › The composite licenses 30 Sage 100cloud seats.
- › The monthly price per seat is \$81.

Risks. Actual license price will vary by organization size, number of users, and business requirements. There are economies of scale of larger license models, as well as potential discounts for longer-term contracts. The best way to estimate licensing costs is to speak directly with a Sage representative who can customize a licensing package that fits the needs of an organization.

To account for these risks, Forrester adjusted this cost upward by 10%, yielding a three-year risk-adjusted total PV of \$79,768.



Sage licensing costs:
25% of total costs

Sage Licensing Costs: Calculation Table

Ref.	Metric	Calculation	Initial	Year 1	Year 2	Year 3
F1	Number of complete seats	Composite		30	30	30
F2	Monthly cost per seat	Sage		\$81	\$81	\$81
F3	Number of months	1 year = 12 months		12	12	12
Ft	Sage licensing costs	F1*F2*F3	\$0	\$29,160	\$29,160	\$29,160
	Risk adjustment	↑10%				
Ftr	Sage licensing costs (risk-adjusted)		\$0	\$32,076	\$32,076	\$32,076

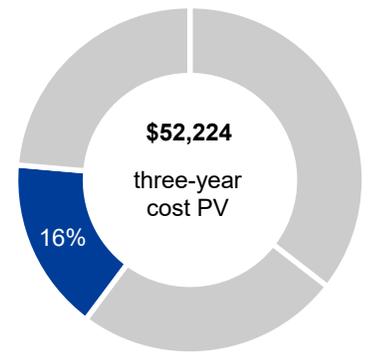
Administration And Maintenance

Interviewees said one reason they chose Sage 100cloud was to minimize IT and consulting spending. When working with a limited technology budget, interviewees knew they would not be able to hire additional resources to support the new ERP technology. Sage and its partners worked closely with interviewees to supplement limited in-house IT. Ensuring proper backup and disaster recovery of on-premises data was a major focus of ongoing administration and maintenance.

Modeling and assumptions. Based on the experiences of the interviewed organizations, Forrester makes the following assumptions for the financial model.

- › The composite organization relies on its Sage partners to conduct most upgrades, customizations, and ongoing maintenance. Note: The cost partner consulting is included in [the section titled Third-Party Services And Internal Implementation Efforts](#).
- › Two internal resources spend approximately 10% of their time on simple maintenance and Sage-related tasks.
- › The burdened annual cost of the Sage-related internal resource is \$100,000.

Risks. Some organizations may require additional resources to maintain and administer Sage. Consider organizational culture of in-house IT reliance as well as organizational appetite for third-party consulting services. To account for these risks, Forrester adjusted this cost upward by 5%, yielding a three-year risk-adjusted total PV of \$52,224.



Administration and maintenance: 16% of total costs



Two FTEs spend 10% of their time on ongoing management of Sage 100cloud.

Administration And Maintenance: Calculation Table

Ref.	Metric	Calculation	Initial	Year 1	Year 2	Year 3
G1	Number of internal resources	Composite		2	2	2
G2	Time dedicated to Sage administration and maintenance	Interviews		10%	10%	10%
G3	Burdened cost of internal resource	Composite		\$100,000	\$100,000	\$100,000
Gt	Administration and maintenance	$G1 * G2 * G3$	\$0	\$20,000	\$20,000	\$20,000
	Risk adjustment	↑5%				
Gtr	Administration and maintenance (risk-adjusted)		\$0	\$21,000	\$21,000	\$21,000

Training

Interviewees explained the importance of training employees on how to properly use Sage, emphasizing that proper training is a requirement for the success of the application. The chief strategy and marketing officer said: “We do a lot of training because it saves us the cost of people not knowing the application. They go around circles and try to figure things out and, as a result, they lose time and efficiency. For us to invest in training for a couple of days is much better than having those inefficiencies.”

His organization conducted in-depth training during the implementation of Sage 100cloud, and it continues to offer education to employees. He said: “We have training every quarter for the teams that use Sage, the support teams, and the IT staff. The courses are online, and we also conduct classroom training regionally for a day every quarter. We offer a full-blown program that covers all the modules and features.”

Modeling and assumptions. Based on the experiences of the interviewed organizations, Forrester makes the following assumptions for the composite organization.

- › A Sage partner provides training at no additional cost.
- › The composite organization has 30 Sage users who participate in training.
- › As part of the Sage 100cloud deployment, users take part in a three-day training session.
- › After the initial deployment, users participate in on-demand online training. It’s assumed to be approximately 4 hours of online training per quarter.
- › This cost captures the value of the employees’ time spent training, based on an average burdened hourly cost of \$38 per employee.

Risks. Training costs will vary by organization. When estimating the impact, consider these questions: Will training courses be mandatory for employees? How many employees are expected to learn the software? An organization may incur additional costs depending on whether training materials and courses will be created internally or purchased from a third party.

To account for these risks, Forrester adjusted this cost upward by 5%, yielding a three-year risk-adjusted total PV of \$76,356.

Training : Calculation Table

Ref.	Metric	Calculation	Initial	Year 1	Year 2	Year 3
H1	Number of Sage users	Composite	30	30	30	30
H2	Number of hours of up-front training	3-day training	24	0	0	0
H3	Number of hours of annual training	4 hours per quarter	0	16	16	16
H4	Average hourly burdened costs of Sage users (rounded value shown)	78,750/2,080 hours	\$38	\$38	\$38	\$38
Ht	Training	$H1*(H2+H3) *H4$	\$27,360	\$18,240	\$18,240	\$18,240
	Risk adjustment	↑5%				
Htr	Training (risk-adjusted)		\$28,728	\$19,152	\$19,152	\$19,152

“The training is mandatory for everybody who touches the Sage application, and it’s a very thorough training end to end, and it’s very important. It’s a requirement for the success of the application.”

*Chief strategy and marketing officer,
high-tech manufacturing*



“The newer generation of software, like Sage, is revolutionizing user adoption. Everything is online. If you need a video, its online. If you need help, you can check the website. Millennials are geared for that. Gone are the days when people sit in a conference room for a training session. I think Sage is on track to be in tune with the new generation and its approach to learning software. And, as a result, we’re getting better adoption, and we’ll get our ROI more quickly.”

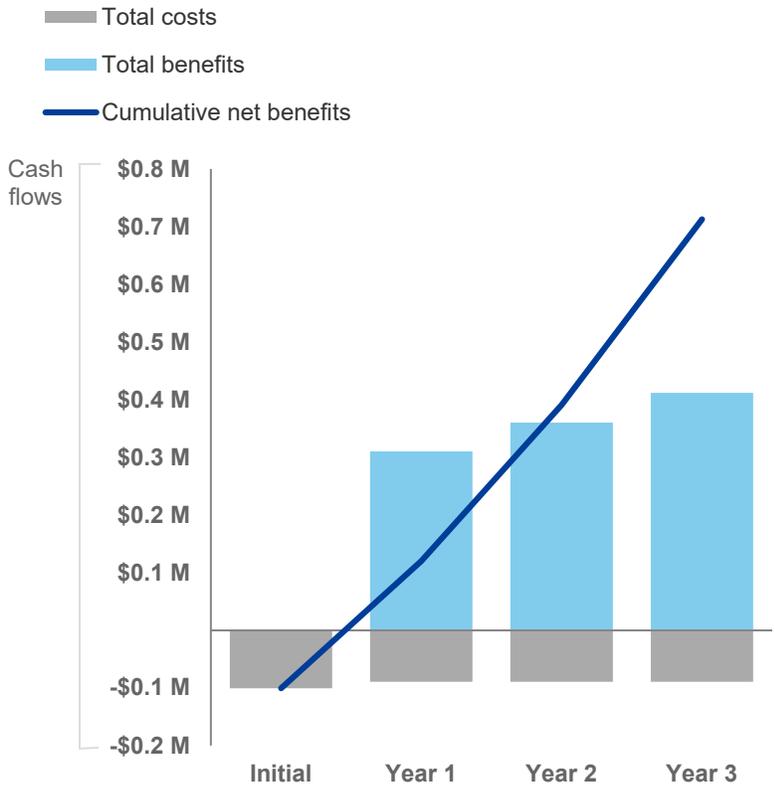
*Global VP of technology procurement,
manufacturing*



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	(\$100,601)	(\$89,478)	(\$89,478)	(\$89,478)	(\$369,035)	(\$323,119)
Total benefits	\$0	\$311,096	\$360,202	\$412,796	\$1,084,094	\$890,642
Net benefits	(\$100,601)	\$221,618	\$270,724	\$323,318	\$715,059	\$567,523
ROI						176%
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.