FORRESTER®

The Total Economic Impact™ Of Looker

Cost Savings And Business Benefits
Enabled By Looker

JUNE 2021

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Executive Summary

Looker, Google Cloud's business intelligence and data application platform, enables organizations to democratize data use, improving data engineering efficiency, augmenting data value, and enabling business and operating model transformation. Looker customers were able to: reduce their reliance on technical teams for business intelligence workflows by 99%+, improve business-user productivity related to these workflows by 24%+; improve average sale value by 26%; and reduce churn by 7%.

Looker provides business intelligence (BI) and data analytics solutions that enable organizations to empower non-technical employees and external parties to leverage organizational data and generate insights. It also enables the productization of analytics for organizations' customers, improving their customer experience (CX) and facilitating new business models.

Looker commissioned Forrester Consulting to conduct a Total Economic Impact™ (TEI) study and examine the potential return on investment (ROI) organizations may realize by deploying Looker.[1] The purpose of this study is to provide readers with a framework to evaluate the potential financial impact of Looker on their organizations.

To better understand the benefits, costs, and risks associated with this investment, Forrester interviewed six customers with experience using Looker. For the purposes of this study, Forrester aggregated the experiences of the interviewed customers and combined the results into a single composite organization.

Prior to using Looker, the customers struggled with: data workflows that required heavy involvement from technical teams; the inability to effectively build and manage their own homegrown analytics solutions; security issues related to provisioning data to external parties; and data chaos stemming from the lack of a common language for metrics and limited trust in their data tools. These challenges increased

KEY STATISTICS

Return on investment (ROI)
486%

Net present value (NPV)
$8.90M

internal costs and lengthened the time it took to generate business value from various data use cases.

After investing in Looker, the customers democratized data analysis across their organizations. This freed technical teams to focus on other, higher-value work, while it also accelerated the time-to-value of data-based insights and their application. Lastly, Looker enabled new business models based on monetizing embedded analytics for partners and end customers.

Increased average sale value

26%

Reduced customer churn

7%

KEY FINDINGS

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

- **Reduced reliance on technical teams for data analytics work by 99% or more.** Looker enabled data consumers, whether internal or external to the organization, to self-serve when it came to data analysis. Through the democratization of analyzing business data, Looker reduced the burden on technical teams by between 99% and 100%, depending on the data request type.

- **Boosted employee productivity by over 24%.** As data consumers were enabled to self-serve when it comes to business intelligence and data

analytics dashboards, they no longer had to wait for technical teams to work with data before proceeding with their work. This enabled a net gain of over 24% for employee productivity related to data workflows. It also enabled product teams to increase the annual number of completed A/B tests by 100%.

- **Increased average sale value by 26% and reduced churn by 7%.** The ability to embed analytics into their own products enabled interviewed customers to command higher average sales prices and provide better customer service. After implementing Looker, the average contract value improved by 26% and retention improved by 7%.

- **Average annual cost savings from decommissioned data infrastructure of over $170,000.** Customers were able to decommission at least one business intelligence tool and its associated on-premises hardware after deploying Looker. By factoring in the additional time savings from no longer having to service the

" **Looker was integral to optimizing our operational processes and increasing our number of orders.**

— VP of marketing strategy and insights, retail and CPG

legacy tool and its infrastructure, an annual average savings of over $170,000 was achieved.

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

- **Better decision-making.** Customers shared that Looker enabled better decision-making in two ways. First, it was able to democratize and accelerate access to organizational data, which helped with generating insights and acting on these. Secondly, it provided a common language for the various decision-makers to easily discuss the organizational and customer data.

- **Improved innovation.** Looker's data workflows introduced time savings that enabled organizations to do more data analytics work in the same time as before. This empowered data consumers to more frequently experiment, improving innovation internally.

- **Reduced security risk.** Looker reduced customers' security risks related to data access and data loss. With Looker, data users were consistently relying on a single version of the truth while preventing the movement, extraction, and potential loss of data.

- **Looker support.** As compared to the prior tools used by the interviewed organizations, Looker's support teams enabled faster implementation and deployment through better response times and more immediate issue resolution.

Costs. Risk-adjusted PV costs include:

- **Looker fees.** Looker's pricing model is based on both a flat platform fee with three tiers and a variable fee based on three user tiers. Pricing also reflects organizational needs, and it can be relatively personalized for each customer.

- **Implementation and deployment costs.** Implementation times vary with internal and external use cases. Internal use cases take approximately four weeks to implement, while

external use cases vary more widely depending on the size and customization of the deployment. As modeled, the composite organization takes eight weeks to implement its external use case.

- **Internal costs of training and ongoing management.** Training is needed for only a subset of users, and it takes approximately 1 hour of their time. Ongoing management will require at least one full-time employee for the number of internal and external users modeled in the composite organization, with some organizations requiring less resources.

The customer interviews and financial analysis found that a composite organization experiences benefits of $10.73M over three years versus costs of $1.83M, adding up to a net present value (NPV) of $8.90M and an ROI of 486%.

ROI
486%

BENEFITS PV
$10.73M

NPV
$8.90M

PAYBACK
<6 months

Benefits (Three-Year)

Improved efficiency of data teams	$2.2M
Improved efficiency and time-to-value of other teams	$6.4M
Improved business results	$1.7M
Reduced cost of data infrastructure	$446.6K

Financial Summary

Payback period: <6 months

Total benefits PV, $10.7M

Total costs PV, $1.8M

Initial   Year 1   Year 2   Year 3
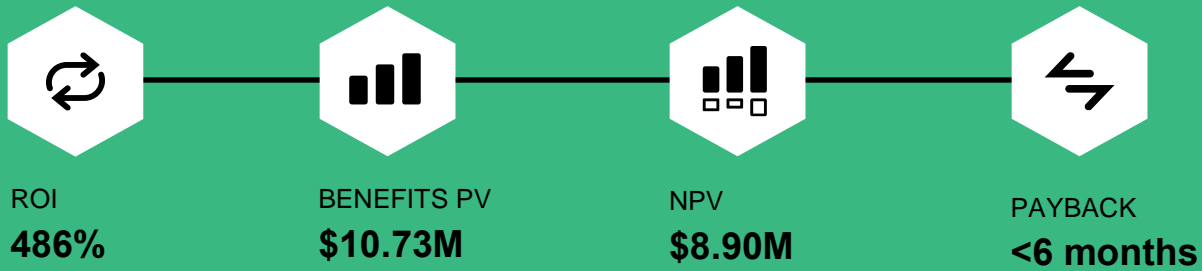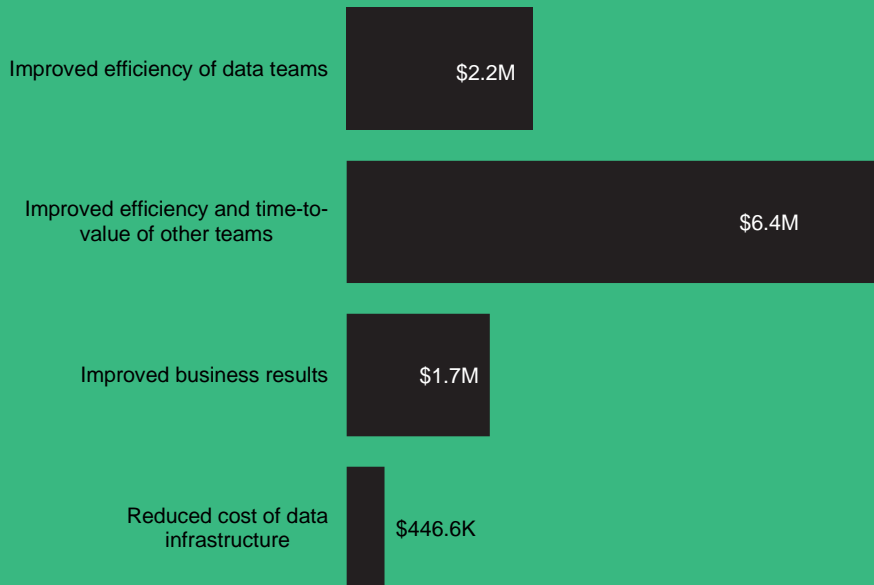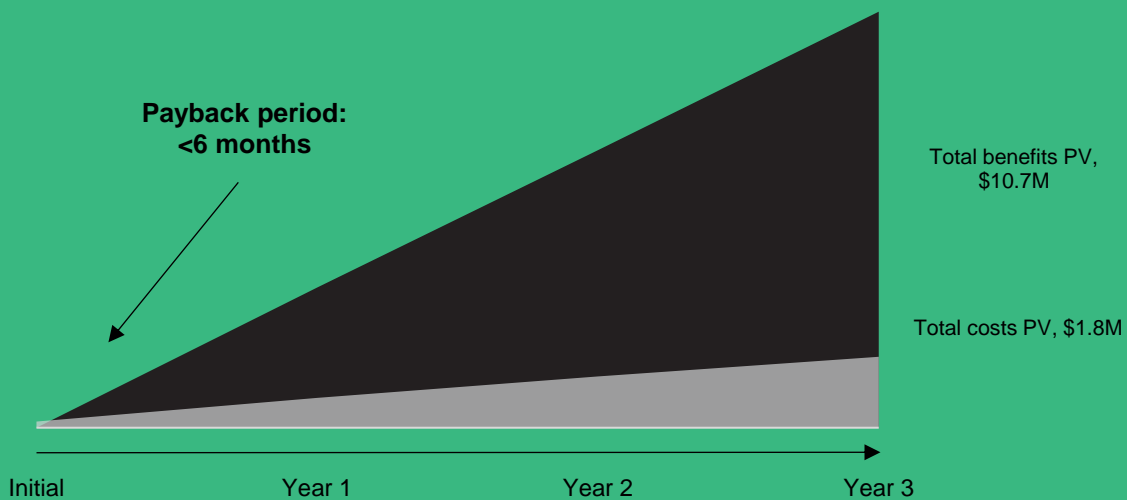
TEI FRAMEWORK AND METHODOLOGY

From the information provided in the interviews, Forrester constructed a Total Economic Impact™ framework for those organizations considering an investment in Looker.

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 Looker can have on an organization.

DISCLOSURES

Readers should be aware of the following:

This study is commissioned by Looker 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 Looker.

Looker 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.

Looker provided the customer names for the interviews but did not participate in the interviews.

DUE DILIGENCE
Interviewed Looker stakeholders and Forrester analysts to gather data relative to Looker.

CUSTOMER INTERVIEWS
Interviewed six decision-makers at organizations using Looker 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 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 Looker Customer Journey

Drivers leading to the Looker investment

Interviewed Organizations			
Industry	**Region**	**Interviewee**	**Total employees and Looker use cases**
B2B software as a service (SaaS)	USA	VP of product	50 employees; embedded analytics
Retail and CPG	USA	VP of marketing strategy and insights	1,000 employees; internal BI
Media	USA	Senior director of business analytics	5,000 employees; internal BI and embedded analytics
Technology	Global	Senior VP of strategic products	5,000 employees; embedded analytics
Telecom	Global	Director of enterprise data; principal product manager	10,000 employees; internal BI
Publishing	Global	VP of business intelligence	100,000 employees; internal BI

KEY CHALLENGES

Before investing in Looker, the interviewed organizations were using a variety of business intelligence and data analytics solutions, including both homegrown reporting tools and third-party offerings. For embedded use cases, where data and analytics were to be shared with customers or partners instead of employees, customers were either using homegrown tools or not engaging in this activity prior to the deployment of Looker.

The interviewed organizations struggled with common challenges, including:

- **High dependency on technologists to deliver insights.** Customers consistently described their prior BI tools, whether built in-house or acquired via a third party, as being inflexible and requiring a high dependency on technology teams to deliver insights. This negatively impacted capabilities and timelines for data-driven decision-making. In many cases, when a report was needed, data technologists would need to interview the non-technical business teams that the report was targeting and build out the back-end data to solve for the appropriate business

need. The end product was a contextualized report that could only be used to do a specific analytic function. Anytime the business team had novel question or needed a new view into the data set, they would have to schedule engineering work. This would impose additional internal costs and delay the eventual business use of the data.

> **"Our employees had to rely on the engineering team for every single thing they had to do with their data, including rewriting queries and restructuring data for dashboards."**
>
> *Senior director of business analytics, media*

- **Insufficient time and skill for homegrown analytics.** Some customers began their internal BI and embedded analytics journeys by building their own solutions. In addition to the high costs and amount of time required to build these tools, customers experienced elevated operating costs that were similar to those experienced by customers using third-party tools: Every time a novel request was made, engineering was required. Additionally, customers utilizing homegrown tools found they could not respond to all requests, with some engineering tasks falling outside of their available talent pool. Customers noted not being able to easily prove the ROI of

> **"We originally built our own analytics tool, thinking: How hard can it be? It turns out: very hard. We quickly realized we didn't want to be in the BI business. We wanted to focus on our core business instead and ended up buying to relieve our internal teams."**
>
> *VP of product, B2B SaaS*

homegrown solutions. In the end, these customers came to realize that it would be a better use of their time to focus on core competencies and products, rather than building analytics and products from scratch.

- **Data security challenges.** The interviewed organizations also noted data security and customer privacy challenges with their prior toolsets. For example, one firm regularly experienced data bleed with their prior tool. This means that some users were getting data out of the tool that came from other users, resulting in reputational damage to the firm.

> **"One of the main reasons we decommissioned our prior tool was that we kept having security issues. Customers kept getting information based on data that did not belong to them."**
>
> *VP of product, B2B SaaS*

- **Data chaos.** Lastly, customers noted their prior tools lacked the ability to function as a single source of truth for BI and data analytics. One firm shared that, before Looker, discussing metrics during executive-level meetings often caused confusion as there was no commonality of language and definitions. Another customer noted that data in their prior environment lacked the consistency, accuracy, and reliability that it now has with Looker.

> **"The top benefit of Looker is finally having a unified language for business metrics. Even meetings at the executive level were confusing before, with participants using different sources and metric terminology."**
>
> *VP of marketing strategy and insights, retail and CPG*

COMPOSITE ORGANIZATION

Based on the interviews, Forrester constructed a TEI framework, a composite company, and a ROI analysis that illustrates the areas financially affected. The composite organization is representative of the six companies that Forrester interviewed and is used to present the aggregate financial analysis in the next section. The composite organization has the following characteristics:

Description of composite. The global, business-to-business composite organization generates $1 billion in revenue annually while employing 4,000 employees. It uses a mixture of third-party and homegrown tooling to meet its BI needs. It is not currently providing external analytics to its customers, as it lacks the time and technical skills required to build the tooling. However, it plans to launch an embedded analytics offering after investing in Looker.

Deployment characteristics. The composite organization has approximately 750 regular internal users of its BI tools. It expects to offer its new external analytics solution to approximately 20,000 customers.

Key assumptions
- **$1 billion in revenue**
- **4,000 employees**
- **750 internal users**
- **20,000 external users**

Analysis Of Benefits

■ Quantified benefit data as applied to the composite

Total Benefits						
Ref.	**Benefit**	**Year 1**	**Year 2**	**Year 3**	**Total**	**Present Value**
Atr	Improved efficiency of data teams	$888,345	$888,345	$888,345	$2,665,035	$2,209,183
Btr	Improved efficiency and time-to-value of other teams	$2,563,100	$2,563,100	$2,563,100	$7,689,300	$6,374,050
Ctr	Improved business results	$317,156	$671,861	$1,135,769	$2,124,786	$1,696,901
Dtr	Reduced cost of data infrastructure	$206,720	$163,970	$163,970	$534,660	$446,633
	Total benefits (risk-adjusted)	$3,975,143	$4,287,098	$4,751,006	$13,013,247	$10,726,324

IMPROVED EFFICIENCY OF DATA TEAMS

Evidence and data. Before investing in Looker, customers' BI and data analytics environments required data engineering teams to be very hands on. Customers described data analytics workflows where everything they needed to do relied on the engineering team — from rewriting queries, to getting the appropriate data set, to restructuring data for a specific dashboard to be performant. Once a report was built, it was relatively inflexible. If a new view was needed or a new question was raised, engineering had to work to develop a new dashboard or update the existing one. Importantly, this occurred whether or not the organization was using a homegrown BI tool or one that it had purchased from a third party.

"With our prior tool, we had to redesign the whole data set every time someone wanted a change to be made."

VP of business intelligence, publishing

Engineering workflows for data insights were also highly manual. The VP of business intelligence from the publishing industry described their engineers needing 20 hours to make a change, which included: searching for and pulling the definitions file; going through it; editing the extract, transform, load (ETL) job; running it; and waiting for the data to come back, where oftentimes it would prematurely close out due to an internal error, requiring the data to be rerun. Then, they would validate the data, test it, and push it back up and refresh it, while "[hoping] everything works fine."

"Now, with Looker, our teams can ask lots of questions of the same data set without relying on the engineering team."

Senior director of business analytics, media

After investing in Looker, the heavy reliance on the engineering team for insights work began to diminish, removing a bottleneck that then allowed business users to leverage data sooner for faster decision-making. For example, the VP of business intelligence shared that their 20-hour workflow now only required 20 minutes from the business user to either develop or update the report. The same customer alleviated 20 hours of work weekly for their data engineers when responding to product team requests and A/B testing.

> **"Looker empowers our product teams to pull their own reports, taking the burden off our engineering team."**
>
> *VP of business intelligence, publishing*

The VP of product from the B2B SaaS firm reported that between 50% and 100% of the work spent recontextualizing data for business reporting — depending on the complexity of the request — has gone away after investing in Looker. The director of enterprise data described a prior environment where each business team had their own team of analysts to respond to requests. After Looker, they were able to consolidate this function and reallocate approximately 100 FTEs over the course of three years to higher-value work.

> **"Looker has even facilitated professional growth. One of the analysts became so good at working with the engineering team building out analytics reporting, that we made him a manager for reporting."**
>
> *VP of business intelligence, publishing*

Looker also enabled data engineers to spend less time responding to requests from customers regarding externally provisioned analytics. The VP of product from the B2B SaaS firm reported their team spending 1 hour each on at least 10 support requests weekly from customers utilizing their external analytics. With Looker, this has gone away.

> **"After switching over to Looker, we lost all of the support issues our teams previously had to field from customers."**
>
> *VP of product, B2B SaaS*

Importantly, Looker also bolstered the organizations' view of their data professionals. Prior to deployment, these teams were seen as bottlenecks to getting insights out of the data, they are now seen as facilitators. Additionally, they can utilize their skill sets for other work with higher business value than report and dashboard building.

> **"There was a perception internally that analysts were not providing value. Now, it's the complete opposite, with stakeholders completely supporting the promotion of one of these analysts recently. The big difference? The data is on Looker."**
>
> *VP of marketing strategy and insights, retail and CPG*

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

- Before Looker, 144 annual requests require the data team to spend 20 hours each redesigning data. With Looker, that timeline is shortened to 20 minutes per request.

- On a weekly basis, five requests for A/B testing require 4 hours of work each from the data team.

- The fully burdened hourly rate of data professionals is $100.

- On an annual basis, there are 5,500 external data requests from customers, which require 1 hour of work from the data team.

Risks. The improved efficiency of data teams will vary depending on:

- The prior time spent responding to general employee data requests, product team requests,

and customer requests that require intensive data work.

- The fully burdened hourly rate of pay for data professionals.

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

Reduced reliance on technical teams for data workflows

99%+

Improved Efficiency Of Data Teams					
Ref.	Metric	Calculation	Year 1	Year 2	Year 3
A1	Hours saved to data team from internal requests requiring data set redesign	Interviews; 144 requests annually* 19.8 hours saved per request	2,851	2,851	2,851
A2	Hours saved to data team from A/B testing requests	Interviews; 4 hours per request, 5 requests weekly	1,000	1,000	1,000
A3	Fully burdened hourly rate of data professional	Composite	$100	$100	$100
A4	Subtotal: reduced cost of internal data requests	(A1+A2)*A3	$385,100	$385,100	$385,100
A5	Number of external data requests	Interviews	5,500	5,500	5,500
A6	Hours saved per request	Interviews	1	1	1
A7	Subtotal: reduced cost of external data requests	A5*A6*A3	$550,000	$550,000	$550,000
At	Improved efficiency of data teams	A4+A7	$935,100	$935,100	$935,100
	Risk adjustment	↓5%			
Atr	Improved efficiency of data teams (risk-adjusted)		$888,345	$888,345	$888,345
Three-year total: $2,665,035			**Three-year present value: $2,209,183**		

IMPROVED EFFICIENCY AND TIME-TO-VALUE OF OTHER TEAMS

Evidence and data. By heavily relying on engineering for data workflows, the interviewed organizations were experiencing both elevated engineering time costs and a delay to broader employee productivity. Employees that needed the data-backed business reports to complete their tasks were spending hours to weeks waiting for engineering to complete the associated data work. This delayed any insights potentially generated from the data that could have a business impact on the organization. Sometimes, the use of the data was delayed even further as organizations began to coordinate reporting releases into monthly batches. In these circumstances, employees were not just waiting the reported 20 hours for the engineering work, but sometimes up to a whole month for engineering to respond to their request.

In addition to delayed productivity, some customers experienced business repercussions from the long wait times associated with insights work. For example, the VP of marketing insights and strategy from the retail and CPG industry shared that its merchandising team struggled with product curation on its e-commerce site. This team was sometimes using sales of individual products as a metric to curate by, but what they really needed was the retake rate. The resulting analysis took a full month for the engineering team to complete, which with their prior tool would have meant that data was already stale. With Looker, the data is updated nearer to real time, and the team is now able to make product curation changes more efficiently.

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

- Fifty of the 750 internal Looker users benefit from the reduced wait time associated with data requests.

- These employees have an average fully burdened rate of $75.

- The productivity recapture rate is 25%.

- Before Looker, 250 A/B tests are able to be completed. Once Looker is deployed, this amount doubles, with the average value per A/B test being $100.

> **"Another thing with Looker: Collaboration is easier. The problem with software design isn't computers, it's people. Anything you can do to get people working together is huge."**
>
> *Senior director of business analytics, media*

Risks. The improved efficiency and time-to-value of other teams may vary based on:

- The number of employees currently impacted by data delays and the engineering teams that have to manually work with the data.

- The average hourly pay rate for these employees.

- The productivity recapture rate of these employees.

- The prior number of A/B tests being done and their associated value.

Results. To account for these risks, Forrester adjusted this benefit downward by 5%, yielding a three-year, risk-adjusted total PV of over $6.3 million.

Improved Efficiency And Time-To-Value Of Other Teams

Ref.	Metric	Calculation	Year 1	Year 2	Year 3
B1	Time saved to requests from broader employee base	A1	2,851	2,851	2,851
B2	Average number of employees impacted by wait time for each data request	Composite	50	50	50
B3	Fully burdened salary of average affected employee	Composite	$75	$75	$75
B4	Productivity recapture rate	Forrester	25%	25%	25%
B5	Subtotal: improved efficiency of general employee base	B1*B2*B3*B4	$2,673,000	$2,673,000	$2,673,000
B6	Prior number of A/B tests completed annually	A2/4	250	250	250
B7	New number of A/B tests completed annually	Interviews; 2x	500	500	500
B8	Value per A/B update	Interviews	$100	$100	$100
B9	Subtotal: improved time-to-value of A/B tests	(B7-B6)*B8	$25,000	$25,000	$25,000
Bt	Improved efficiency and time-to-value of other teams	B5+B9	$2,698,000	$2,698,000	$2,698,000
	Risk adjustment	↓5%			
Btr	Improved efficiency and time-to-value of other teams (risk-adjusted)		$2,563,100	$2,563,100	$2,563,100
	Three-year total: $7,689,300		Three-year present value: $6,374,050		

IMPROVED BUSINESS RESULTS

Evidence and data. Customers reported that their investment in Looker led to a broad variety of business benefits outside of cost savings and productivity improvements.

For example, the customer from the media industry shared that Looker's flexibility allowed them to quickly run experiments in their media buying group. Those experiments led to the following impacts:

- The cost paid for media, i.e., cost-per-mille (CPM), was reduced by 25% by analyzing the different kinds of media they should be buying and where they should be buying it.

- Revenue was improved by 30% as demand increased due to the lower CPM being passed on to customers as lower prices.

- Profit was improved by 100%.

- Through more accurate pricing, the media customer became more competitive in the market.

The retail and CPG interviewee shared the following business results that were due to their Looker investment:

- Third-party gross margin increased by over 5%.

- The percent of own-brand revenue increased by more than 10%.

- Refunded orders decreased by just under 30%.

- The add-to-cart rate increased by over 5%.

- Mobile adoption tripled.

> **"We've experienced revenue growth of tens of millions of dollars with Looker."**
>
> *Director of enterprise data, telecom*

Looker also enabled interviewed organizations to turn data analytics into an additional business offering, enabling these firms to offer analytics and insights based on customers' data back to those customers. This enabled the B2B SaaS company to increase average contract value by over 25% and reduce churn by 7%.

> **"Not having proper analytics in our prior environment hurt our brand. With Looker, that has all quieted down."**
>
> *SVP of strategic products, technology*

The technology company shared that the improved business results it experienced thanks to Looker were achieved much faster than if they had built their own solution. Just to build the same product without Looker would have taken this company between eight and 12 months, but it only took three months with Looker. This equates to an improved time to value of between 63% and 75%. Additionally, the technology company can now add functionality in a matter of months.

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

- The average sale value before Looker is $150,000.

> **"We proudly tell people that we are powered by Looker. It gives us more validity than just saying, 'Oh, no, it's just a white-labeled solution.'"**
>
> *VP of product, B2B SaaS*

- In Year 1, 250 new deals are signed. In Years 2 and 3, this number increases to 300 and then to 350, respectively.

- The total annual revenues before Looker are $1B.

- The profit margin is 6%.

- Looker's responsibility for revenue benefits is 15%, while the remainder accrues to other pieces of data workflows and employee skill.

Increased average sales value

26%

Improved customer retention

7%

Risks. Improved business results may vary with:

- The average value of sales and the number of new deals signed annually.

- Total revenue.

- Profit margin.

Results. To account for these risks, Forrester adjusted this benefit downward by 15%, yielding a three-year, risk-adjusted total PV of $1.7 million.

Improved Business Results					
Ref.	**Metric**	**Calculation**	**Year 1**	**Year 2**	**Year 3**
C1	Average value per sale before Looker	Composite	$150,000	$150,000	$150,000
C2	Improvement to value after Looker	Interviews	13%	26%	26%
C3	New deals annually	Composite	250	300	350
C4	Subtotal: improved revenue from sales	C1*C2*C3	$4,875,000	$11,700,000	$13,650,000
C5	Total annual revenue	Composite	$1,000,000,000	$1,024,875,000	$1,077,570,000
C6	Annual customer churn before Looker	Interviews	25%	25%	25%
C7	Annual customer churn after Looker	Interviews	23%	21%	18%
C8	Subtotal: retained revenue from reduced churn	C5*(C6-C7)	$20,000,000	$40,995,000	$75,429,900
C9	Profit margin	Composite	10%	10%	10%
C10	Percentage improvement attributable to Looker	Interviews	15%	15%	15%
Ct	Improved business results	(C4+C8)*C9*C10	$373,125	$790,425	$1,336,199
	Risk adjustment	↓15%			
Ctr	Improved business results (risk-adjusted)		$317,156	$671,861	$1,135,769
	Three-year total: $2,124,786		**Three-year present value: $1,696,901**		

REDUCED COST OF DATA INFRASTRUCTURE

Evidence and data. Investing in Looker also enabled the interviewed organizations to reduce their BI and data-related expenses. While some customers chose to keep their old tools and use them in conjunction with Looker, the majority of customers decommissioned at least one BI tool after investing in Looker; some customers decommissioned as many as three tools.

These customers were also able to reduce the amount of internal IT costs related to maintaining now-decommissioned solutions. In addition, one customer shared that they were able to reduce the number of data marts and warehouses by 93%, with associated savings of $10 million annually.

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

- The annual cost of a decommissioned legacy BI tool is $110,000.

- The associated, decommissioned on-premises hardware cost of $50,000 is saved Year 1. In Years 2 and 3, $5,000 in maintenance fees are saved.

- Eighty person-hours per month, at a fully burdened hourly rate of $60, are no longer spent managing this BI tool and its associated on-premises infrastructure.

Risks. The reduced cost of data infrastructure will vary with:

- The annual cost of any replaced BI tool.

- The annual and avoided costs of the hardware needed to run these tools.

- The internal time and labor cost to manage these tools.

Results. To account for these risks, Forrester adjusted this benefit downward by 5%, yielding a three-year, risk-adjusted total PV of $446,633.

Reduced Cost Of Data Infrastructure					
Ref.	Metric	Calculation	Year 1	Year 2	Year 3
D1	Reduced cost from decommissioned legacy BI tool	Interviews	$160,000	$115,000	$115,000
D2	Reduced cost of management of legacy BI tool	Interviews; 80 person-hours monthly	$57,600	$57,600	$57,600
Dt	Reduced cost of data infrastructure	D1+D2	$217,600	$172,600	$172,600
	Risk adjustment	↓5%			
Dtr	Reduced cost of data infrastructure (risk-adjusted)		$206,720	$163,970	$163,970
	Three-year total: $534,660		Three-year present value: $446,633		

UNQUANTIFIED BENEFITS

Additional benefits that customers experienced but were not able to quantify include:

- **Better decision-making through shared language and trust.** Customers shared that Looker improved their internal decision-making by providing a common language to discuss metrics and by improving trust in this data. The director of enterprise data from the telecom industry said, "Now we have data sets coming in as 'certified,' we're relying on a single version of the truth rather than looking at different data sets when making decisions." The VP of marketing

insights and strategy from the retail and CPG firm shared: "In the past, metrics discussions at the executive level could be confusing for everyone involved due to using the same words to mean different things. Looker has provided us a commonality of definitions and language to effectively discuss our metrics and be efficient in our decision-making."

> **"We ran an internal survey on Looker, and it has an 80% satisfaction rate, and 90% of users trust the data Looker provides."**
>
> *VP of marketing strategy and insights, retail and CPG*

- **Improved innovation.** Interviewees also shared that Looker enabled them to improve innovation within their organizations. For example, the senior director of business analytics from the media industry noted: "Looker enabled us to have a culture of experimentation. Half of our ideas might not work, but those that did allowed us to reduce costs and improve revenues in 2020, one of our most difficult years."

> **"Looker gave us the ability to very quickly get insights and answer questions much faster. It gave us the luxury to fail."**
>
> *Senior director of business analytics, media*

- **Reduced security risk.** Customers noted that, with Looker, they were able to reduce their security risks related to data access and data loss. For example, the director of enterprise data from the telecom industry said: "All the data sets with Looker are 'certified,' so not only are we relying on a single version of the truth, but we're also preventing people moving or extracting data. If we did, data could be doubled, or we could even lose something. Everything is reconciled, vetted, and validated now."

- **Looker support.** Interviewees also mentioned the positive impact that Looker support had on their businesses. For example, the VP of product from the B2B SaaS firm shared, "When we went looking for a new solution, we got someone from Looker on the phone in one day, and within three days [we] had a proof-of-concept kickoff." The VP of business intelligence from the publishing industry described: "We had stopped calling support for our prior tool because of how long it took to fix anything. With Looker, we get accurate, functional support that solves our issues straight away."

FLEXIBILITY

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

- **Back-end flexibility and multicloud.** The senior director of business analytics from the media industry shared: "One of the top benefits of Looker is the flexibility of the back end. I can't tell you how many times I've been in a meeting where the engineering team says, 'Yeah, we have the data for you, but it's in this database or that one. I say, 'I don't care.' It doesn't matter what's on the back end, Looker will work."

- **Resilience during challenging times.** Customers also shared that Looker was able to provide their firms with a level of resilience during the economic woes of the COVID-19 outbreak. For example, the media company strategically put data and Looker front and center to weather 2020. The interviewee said, "Looker's ability to very quickly get us insights and answer questions allowed us to respond to the market much faster, shortening our time-to-market and making us more resilient."

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

Analysis Of Costs

Quantified cost data as applied to the composite

Total Costs

Ref.	Cost	Initial	Year 1	Year 2	Year 3	Total	Present Value
Etr	Total Looker fees	$0	$333,000	$335,700	$338,897	$1,007,597	$834,784
Ftr	Cost of implementation and deployment	$151,200	$0	$0	$0	$151,200	$151,200
Gtr	Cost of training and ongoing management	$7,875	$336,000	$336,000	$336,000	$1,015,875	$843,457
	Total costs (risk-adjusted)	$159,075	$669,000	$671,700	$674,897	$2,174,672	$1,829,441

TOTAL LOOKER FEES

Evidence and data. Looker prices its solutions based on a flat platform fee with three tiers and a variable fee. The variable fee has three user tiers: Developer (Admin), Standard (Creator), and Viewer. Although pricing is based on these fees, the price paid is customized on a per-customer basis. For embedded analytics, costs vary greatly depending on the size and customization of the deployment.

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

- The average for internal BI is 750 users.

- The average number of external users is 20,000, and it grows as new sales (C3) are made.

- Blended platform fees and per-user fees take into account a discounting schedule for deploying at scale.

Risks. Total Looker fees will vary with:

- The number of use cases.

- The platform tier.

- The total number of users and mix of user tiers.

Results. As Forrester priced the composite directly with Looker, Looker fees have not been adjusted for risk, yielding a three-year, total PV (discounted at 10%) of $834,784.

Total Looker Fees						
Ref.	**Metric**	**Calculation**	**Initial**	**Year 1**	**Year 2**	**Year 3**
E1	BI fees			$153,000	$153,000	$153,000
E2	Embedded analytics fees	Increases with new sales (C3)		$180,000	$182,700	$185,897
Et	Total Looker fees	F1+F2	$0	$333,000	$335,700	$338,897
	Risk adjustment	0%				
Etr	Total Looker fees (risk-adjusted)		$0	$333,000	$335,700	$338,897
	Three-year total: $1,007,597			**Three-year present value: $834,784**		

COST OF IMPLEMENTATION AND DEPLOYMENT

Evidence and data. Customers incurred internal time costs to implement and deploy Looker. On average, it took customers around four weeks to implement and deploy the internal BI and eight weeks to deploy the embedded analytics solution. Three FTEs were required to implement and deploy each solution.

> **"We had a prior BI tool that took us 13 months to get any value out of. With Looker, we were getting value within a few days, even while only in the proof-of-concept stage."**
>
> *VP of product, B2B SaaS*

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

- It took four weeks to implement the internal BI use case and eight weeks to implement the embedded analytics use case.

- Three FTEs are needed for implementation with an average fully burdened hourly rate of $100.

Risks. The cost of implementation and deployment will vary with:

- The total implementation time given the number of use cases.

- The number of FTEs needed for implementation and their fully burdened hourly rate.

Results. To account for these risks, Forrester adjusted this cost upward by 5%, yielding a three-year, risk-adjusted total PV of $151,200.

Cost Of Implementation And Deployment

Ref.	Metric	Calculation	Initial	Year 1	Year 2	Year 3
F1	Weeks to implement and deploy both solutions		12			
F2	FTEs needed to implement and deploy		3			
F3	Fully burdened hourly rate per employee		$100			
Ft	Cost of implementation and deployment	F1*40*F2*G3	$144,000	$0	$0	$0
	Risk adjustment	↑5%				
Ftr	Cost of implementation and deployment (risk-adjusted)		$151,200	$0	$0	$0
	Three-year total: $151,200			**Three-year present value: $151,200**		

COST OF TRAINING AND ONGOING MANAGEMENT

Evidence and data. Lastly, customers noted incurring internal time costs that were associated with training and ongoing management of Looker. On average, training took 1 hour for every user trained, while the equivalent of one FTE was required for ongoing management.

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

- Ten percent of total Looker internal users will need to be trained.

- Training takes 1 hour of the trainer's time.

- These users have an average fully burdened hourly rate of $100; this is higher than all Looker users.

- The equivalent of one FTE is required to manage embedded analytics with Looker; this FTE has a fully burdened annual rate of $200,000. Another IT FTE is required to manage the solution in terms of upgrades and technical issues at a fully burdened annual rate of $120,000.

Risks. The cost of training and ongoing management will vary with:

- The number and average fully burdened hourly rate of users needing training.

- The number and fully burdened rate of FTEs managing Looker.

Results. To account for these risks, Forrester adjusted this cost upward by 5%, yielding a three-year, risk-adjusted total PV of $843,457.

Cost Of Training And Ongoing Management

Ref.	Metric	Calculation	Initial	Year 1	Year 2	Year 3
G1	Number of FTEs requiring training	Interviews; 10% of users	75			
G2	Hours spent training	Interviews	1			
G3	Fully burdened hourly rate per employee	Interviews	$100			
G4	Number of FTEs managing Looker	Interviews		2	2	2
G5	Average fully burdened annual rate per FTE	Composite		$160,000	$160,000	$160,000
Gt	Cost of training and ongoing management	Initial: G1*G2*G3 All years: G4*G5	$7,500	$320,000	$320,000	$320,000
	Risk adjustment	↑5%				
Gtr	Cost of training and ongoing management (risk-adjusted)		$7,875	$336,000	$336,000	$336,000
	Three-year total: $1,015,875			**Three-year present value: $843,457**		

Financial Summary

CONSOLIDATED THREE-YEAR RISK-ADJUSTED METRICS

Cash Flow Chart (Risk-Adjusted)
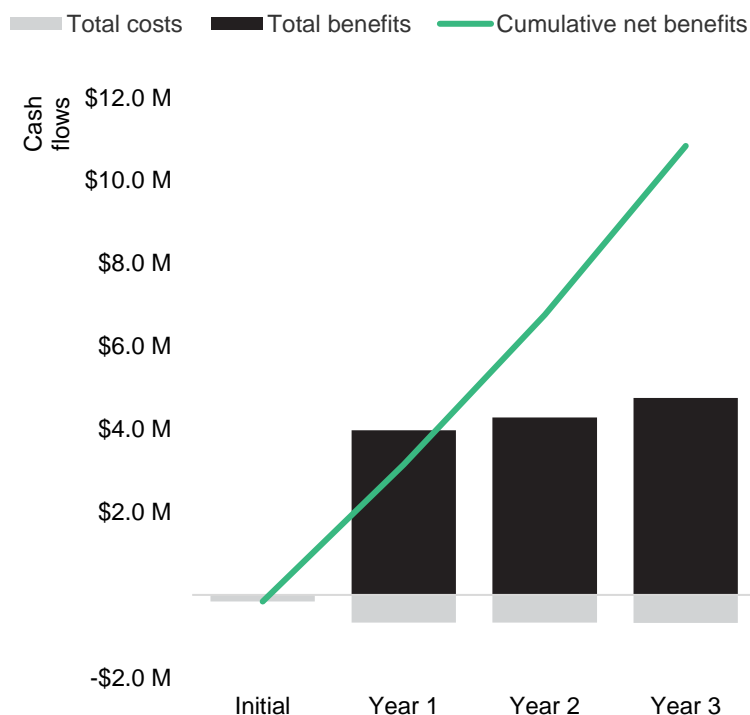
The financial results calculated in the Benefits and Costs sections can be used to determine the ROI, NPV, and payback period for the composite organization's investment. Forrester assumes a yearly discount rate of 10% for this analysis.

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	($159,075)	($669,000)	($671,700)	($674,897)	($2,174,672)	($1,829,441)
Total benefits	$0	$3,975,143	$4,287,098	$4,751,006	$13,013,247	$10,726,324
Net benefits	($159,075)	$3,306,143	$3,615,398	$4,076,108	$10,838,575	$8,896,883
ROI						486%
Payback period						<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."

The initial investment column contains costs incurred at "time 0" or at the beginning of Year 1 that are not discounted. All other cash flows are discounted using the discount rate at the end of the year. PV calculations are calculated for each total cost and benefit estimate. NPV calculations in the summary tables are the sum of the initial investment and the discounted cash flows in each year. Sums and present value calculations of the Total Benefits, Total Costs, and Cash Flow tables may not exactly add up, as some rounding may occur.

PRESENT VALUE (PV)

The present or current value of (discounted) cost and benefit estimates given at an interest rate (the discount rate). The PV of costs and benefits feed into the total NPV of cash flows.

NET PRESENT VALUE (NPV)

The present or current value of (discounted) future net cash flows given an interest rate (the discount rate). A positive project NPV normally indicates that the investment should be made, unless other projects have higher NPVs.

RETURN ON INVESTMENT (ROI)

A project's expected return in percentage terms. ROI is calculated by dividing net benefits (benefits less costs) by costs.

DISCOUNT RATE

The interest rate used in cash flow analysis to take into account the time value of money. Organizations typically use discount rates between 8% and 16%.

PAYBACK PERIOD

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

Appendix B: Endnotes

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

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