The Total Economic Impact™ Of Guaranteed Fraud Protection

Incremental Earnings, Chargeback Cost Avoidance, And Fraud Management Efficiency Enabled By Signifyd

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ABOUT FORRESTER CONSULTING

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Executive Summary

Forrester forecasts that US online sales will reach $493 billion in 2018 and $591 billion by 2020.[2] According to several studies, eCommerce fraud loss as a percentage of revenue ranges between 0.85% and 0.9%. Without an improvement in the fraud loss rate, US eCommerce fraud losses will increase to approximately $5.2 billion by 2020 — and this does not even account for missed revenue opportunities due to false or incorrect declines.[3] For individual companies, this presents a material risk to revenue, chargeback costs, prolonged investigations that lead to long fulfillment times and lower customer satisfaction, and operational expenses to manage fraud.

Signifyd is a provider of Guaranteed Fraud Protection, a unique approach to fraud management that leverages real-time machine learning and shifts fraud liability away from eCommerce merchants by providing a 100% financial guarantee against fraud. Guaranteed Fraud Protection enables companies to reduce manual case reviews, avoid chargeback costs, and target higher order-acceptance rates. Signifyd commissioned Forrester Consulting to conduct a Total Economic Impact™ (TEI) study and examine the potential return on investment (ROI) enterprises may realize by moving from legacy fraud prevention tools to a Guaranteed Fraud Protection solution. The purpose of this study is to provide readers with a framework to evaluate the potential financial impact of Guaranteed Fraud Protection on their organizations.

To better understand the benefits, costs, and risks associated with this investment, Forrester interviewed an enterprise customer with experience using Signifyd. The interviewed customer is a large US retailer with over $2 billion in annual revenue, over 200 stores in 20 states, and $98 million of eCommerce revenue from selling consumer electronics and appliances.

Prior to adopting Signifyd, the interviewed customer used a rules-based tool and relied on its customer support staff to manually review orders. This became a "part-time" function of the customer support team, which lacked fraud expertise. As the online business grew, a dropship business model was introduced, and the more experienced customer support staff were reallocated to other teams. The customer subsequently experienced a spike in fraud and order review times.

The customer evaluated several solutions and chose Signifyd for the automation that would allow the customer to be hands-off and focus more on growing its online business. In addition to increasing fraud management efficiency and reducing customer support workload, the customer also experienced chargeback cost avoidance, an increased order acceptance rate, and faster order fulfillment during its peak season.

Key Findings

Quantified benefits. The customer experienced the following risk-adjusted quantified benefits:

› **Incremental order acceptance and earnings ($3,206,696).** This benefit focuses on the incremental orders accepted based on more efficient and accurate fraud prevention from Signifyd. The customer's baseline order acceptance rate was 88.9% and rose to 93.5% with Guaranteed Fraud Protection.[4] Although a specific acceptance rate cannot be guaranteed outright, Signifyd works with each organization to determine realistic improvement targets.

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ROI
380%

Benefits PV
$7.1 million
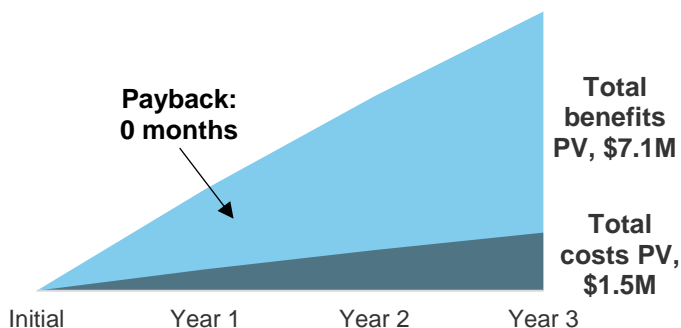
Costs PV
$1.5 million

NPV
$5.6 million

› **Chargeback cost avoidance ($2,675,952).** By working with Signifyd, the customer offset the risk and cost of chargebacks. Prior to leveraging a Guaranteed Fraud Protection solution, the customer had 61 basis points of chargeback losses; however, they have not experienced issues with chargebacks since moving to Signifyd. Additionally, guaranteed protection allows the customer to better define and budget fraud management costs based on a set service usage fee rather than a variable chargeback cost that can change each year based on a larger set of factors the customer cannot control. Readers should remember that "true" chargeback costs include costs related to restocking inventory, administrative overhead, and any fines or penalties from banks. Including these factors, this study uses a multiplier of 2.4, which is comprised of $1.40 in overhead costs in addition to every $1 of chargeback losses.[5]

› **Improved order fulfillment speed and reduced cancellations ($731,963).** Manually reviewing 8% of orders became a pain point for the customer during its peak season. The customer estimated an 80% customer satisfaction rating for consumers that received orders on time versus a 45% rating for delayed orders. Signifyd's automation enabled the customer to save 3% of the orders that were previously reviewed manually and that would have been cancelled due to prolonged confirmation and investigation times.

› **Fraud expertise and operational cost avoidance ($479,305).** The hybrid team of customer support staff that previously manually reviewed orders was able to return to solely focusing on customer support issues and service. The customer estimated 8 minutes to review each order, and this resulted in 1.6 FTEs saved or available for reallocation.

Costs. The customer experienced the following risk-adjusted costs:

› **Signifyd service cost ($1,473,851).** This cost focuses on the Signifyd usage fee. Based on the customer's commitment regarding contract term and a monthly usage minimum the study uses their pricing of 50 basis points of the revenue from approved transactions. Signifyd's service fee only applies to approved orders; thus, merchants aren't charged for any fraudulent orders that are declined.

› **Internal labor and implementation ($3,173).** This cost includes 40 hours of initial internal time and effort for deployment.

Forrester's interview with an existing customer and subsequent financial analysis found that the interviewed organization experienced benefits of $7,093,917 over three years versus total costs of $1,477,025, resulting in a net present value (NPV) of $5,616,892 and an ROI of 380%.

Financial Summary
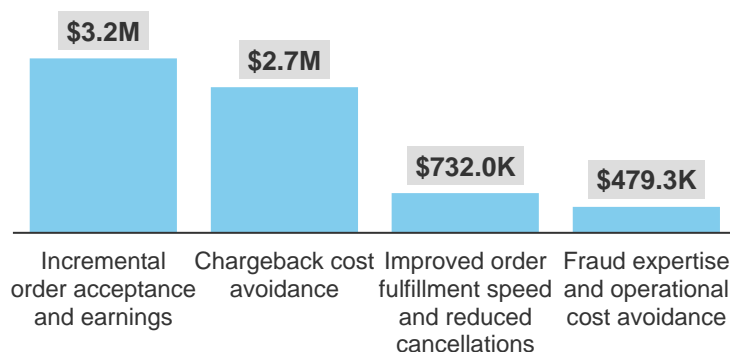
Payback:
0 months

Initial   Year 1   Year 2   Year 3

Benefits (Three-Year)

Total benefits PV, $7.1M

Total costs PV, $1.5M

$3.2M — Incremental order acceptance and earnings

$2.7M — Chargeback cost avoidance

$732.0K — Improved order fulfillment speed and reduced cancellations

$479.3K — Fraud expertise and operational cost avoidance

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TEI Framework And Methodology

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

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 Signifyd can have on an organization:

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

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

CUSTOMER INTERVIEW
Interviewed one organization using Signifyd to obtain data with respect to costs, benefits, and risks.

FINANCIAL MODEL FRAMEWORK
Constructed a financial model representative of the interview using the TEI methodology and risk-adjusted the financial model based on issues and concerns of the interviewed organization.

CASE STUDY
Employed four fundamental elements of TEI in modeling Signifyd'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 Signifyd 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 Signifyd.

Signifyd 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.

Signifyd provided the customer name for the interview but did not participate in the interview.

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The Signifyd Customer Journey

BEFORE AND AFTER THE SIGNIFYD INVESTMENT

Interviewed Organization

For this study, Forrester interviewed an enterprise customer with the following characteristics:

› $2 billion in annual revenue and over 200 stores across 20 states selling consumer electronics and appliances.

› eCommerce revenue of $98 million.

› Over 250 corporate staff and 28 people directly on or supporting the eCommerce team.

› No fraud specialists on either the eCommerce or customer support teams that reviewed flagged orders prior to adopting Guaranteed Fraud Protection.

Key Challenges

The customer experienced the following challenges prior to deploying Signifyd:

› **A hybrid customer support team reviewing orders without an automated tool or fraud experts.** The customer used a commercial rules-based tool to flag orders, and the customer support team manually reviewed up to 8% of the orders, which included many high-value items. This reduced the control of the eCommerce team, which is accountable for online revenue, on the actual orders accepted, directly affecting revenue. The larger issue was that the customer neither built the support team with the mission of fraud management nor employed any fraud experts, thus taking on fraud review workloads on a "part-time" basis without robust experience. This not only reduced the productivity of the team to focus on their main mission of supporting consumers but also called into question the accuracy of reviews.

› **Fragile and unscalable process that broke easily.** As the customer's digital business grew, the fraud management workload became less manageable by the customer support team. To further add to the challenge, the company initiated a new revenue stream through a dropship program, which fell outside the purview of the rules-based tool.[6] The two to three customer support staff who gained experience in reviewing orders were also reallocated to another team. The increase in digital sales, changes to revenue sources, and movement of talent revealed the underlying fragility of the process.

› **Material financial impact to both topline and bottomline.** With an 88.9% order acceptance rate and increase in cancelled orders during peak season, the customer experienced material impact to sales. Furthermore, chargeback costs and the added burden to the customer support team's workload also affected the company's bottomline.

Solution And Results

The customer evaluated several technology providers and selected Signifyd for the following reasons:

> "As business grew, workload grew in all areas for customer support, and we saw an increase in online fraud and account takeovers. Items sold in our new dropship initiative were also not eligible for review with our legacy tool. We needed more automation."
>
> *Manager of eCommerce operations, large US retailer*

> "The customer support team was skeptical at first regarding the reduction in workload by deploying Signifyd, but we stress tested it and were able to deploy successfully, saving 1 to 1.5 FTEs just months before holiday season."
>
> *Manager of eCommerce operations, large US retailer*

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- Deploying an automated solution instead of a rules-based flagging tool gained buy-in from the customer support team.

- Deflecting chargeback costs gained buy-in from the accounting stakeholders.

- Targeting a higher order acceptance rate, backed by a financial guarantee against fraud, gained buy-in from the finance stakeholders.

- Compared with similar solutions, the customer highlighted pricing and transparency as advantages of Signifyd and the solution that was best fit for the organization's use case.

Interview Highlights

The interview revealed the following key themes:

- **The case for Guaranteed Fraud Protection is a lot better than comparing chargeback losses with Signifyd's fee.** Organizations that only compare their chargeback losses with Signifyd's fee are missing a significant portion of the value equation. In addition to the actual chargeback, readers should consider the restocking fees, overhead and administrative costs, and any fines and penalties as part of the total cost of chargebacks. This study refers to a 2.4x multiplier highlighted in recent research; thus, the comparison should be your chargeback cost multiplied by 2.4 and then compared with Signifyd's cost. To add to that bare-bones value equation, organizations need to also consider the value of potentially higher order acceptance rates, quicker order fulfillment leading to better customer experience and fewer order cancellations, and automation that allows for reduction or the complete outsourcing of fraud management.

- **Machine learning and automation is not the entire future but a large part of it.** Machine learning and algorithms enable organizations to move beyond static rules and statistical models that rely heavily on modelers, fraud analysts, and investigators.[7] Automation allowed the interviewed customer to reduce the 8% of orders that were previously reviewed manually. However, machine learning is not the silver bullet, as the customer highlighted that 2% of orders are still manually reviewed by Signifyd analysts.[8] Decisions from analysts also feed into the algorithm, which underlines the mutually beneficial and necessary relationship between machine and human domain expertise.

- **Manual reviews that affect order fulfillment time matter.** The customer estimated customer satisfaction scores of 80% for consumers who received their order on time and only 45% for consumers whose orders were delayed. That metric can be further extrapolated for items like customer retention, churn, lifetime value, and likelihood to promote or detract. A more tangible, direct, and immediate effect is an order cancellation request if an order confirmation takes too long or if additional verification is requested from a consumer. While some order cancellations may be legitimate fraud or would have been declined if a full review had been completed, organizations can estimate what portion are false positives. Moreover, delayed order fulfillment time due to long manual investigations should not be the catalyst that drives potential revenue loss and analysis of false positives versus true positives.

"Consumers that received orders on-time gave us an 80% customer satisfaction score and consumers who received late deliveries rated gave us a 45% customer satisfaction score. Improving order fulfillment speed not only reduced risk to customer satisfaction but also reduced order cancellations, especially during holiday season when everyone wants their order before Christmas."

Manager of eCommerce operations, large US retailer

Financial Analysis

QUANTIFIED BENEFIT AND COST DATA

Total Benefits

REF.	BENEFIT	YEAR 1	YEAR 2	YEAR 3	TOTAL	PRESENT VALUE
Atr	Incremental order acceptance and earnings	$1,289,460	$1,289,460	$1,289,460	$3,868,380	$3,206,696
Btr	Chargeback cost avoidance	$1,076,040	$1,076,040	$1,076,040	$3,228,120	$2,675,952
Ctr	Improved order fulfillment speed and reduced	$294,333	$294,333	$294,333	$883,000	$731,963
Dtr	Fraud expertise and operational cost avoidance	$187,419	$193,041	$198,833	$579,293	$479,305
	Total benefits (risk-adjusted)	**$2,847,252**	**$2,852,875**	**$2,858,666**	**$8,558,793**	**$7,093,917**

Incremental Order Acceptance And Earnings

The customer achieved an improvement in order acceptance rate from 88.9% before deploying Signifyd to 93.5% after adopting Guaranteed Fraud Protection. To isolate the effect of Signifyd versus impact of other business activities on revenue, the total transactions and average order value are kept at a constant of 320,585 total orders and $343.86, respectively. Typically, organizations should factor organic growth into sales and transaction when modeling revenue growth.

The incremental orders accepted equate to incremental revenue of $15.2 million over three years. After adjusting for attribution and gross margin, the incremental earnings is $3.6 million.[9]

Potential risks and items that may result in a lower benefit value include:

› Lower-than-expected acceptance rate.

› Decline in business, order volume, and average order value.

› Conservative attribution rate.

› Lower gross margin.

› Selling into new geographies.

To account for these risks, Forrester adjusted this benefit downward by 10%, yielding a three-year risk-adjusted total PV of $3,206,696.

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 interviewed organization expects risk-adjusted total benefits to be a PV of more than $7 million.

$3.2 million

three-year benefit PV
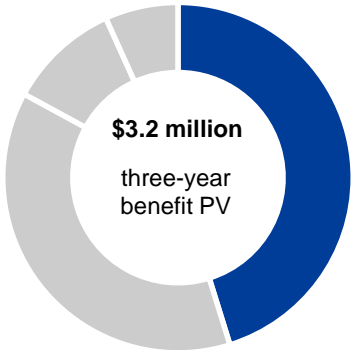
acceptance and earnings: **45%** of total benefits

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.

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Incremental Order Acceptance And Earnings

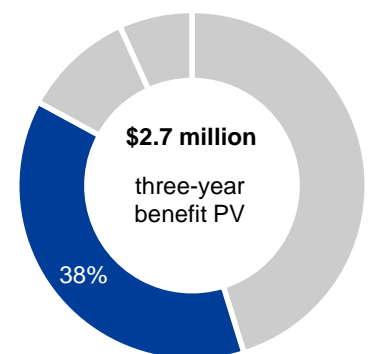| REF.	METRIC	CALC.	INITIAL	YEAR 1	YEAR 2	YEAR 3
A1	Pre-Signifyd order acceptance rate	Customer estimate	88.9%	88.9%	88.9%	88.9%
A2	Post-Signifyd order acceptance rate	Customer estimate		93.5%	93.5%	93.5%
A3	Accepted orders	Initial: customer estimate Year 1-3: A2*A4	285,000	299,747	299,747	299,747
A4	Total orders	A3$_{initial}$/A1$_{initial}$	320,585	320,585	320,585	320,585
A5	Total eCommerce revenue	Initial: customer estimate Year 1-3: A3*A6	$98,000,000	$103,070,866	$103,070,866	$103,070,866
A6	Average order value	A5$_{initial}$/A3$_{initial}$	$343.86	$343.86	$343.86	$343.86
A7	Incremental revenue	A5$_{cy}$-A5$_{initial}$		$5,070,866	$5,070,866	$5,070,866
A8	Attribution	Assumption		100%	100%	100%
A9	Gross margin	Assumption	28.3%	28.3%	28.3%	28.3%
At	Incremental order acceptance and	A7*A8*A9		$1,432,733	$1,432,733	$1,432,733
	Risk adjustment	↓10%				
Atr	**Incremental order acceptance and earnings (risk-adjusted)**		**$0**	**$1,289,460**	**$1,289,460**	**$1,289,460**

Chargeback Cost Avoidance

The customer's chargeback cost prior to adopting Signifyd was 61 basis points of total online revenue. This liability is shifted to Signifyd, and chargeback fees are reimbursed. Readers can either follow the conservative risk-adjustment for this benefit area to account for any administrative and restocking fees that may be lost regardless of chargeback guarantees. Alternatively, readers may also forecast the reduction in true positives and chargeback reimbursements needed, which would proportionately affect the $1.40 of additional administrative losses per $1 of chargeback loss.

Potential risks and items that may result in a lower benefit value include:

› Increased chargeback rate.

› Incurring costs related to fraud not covered by reimbursement.

To account for these risks, Forrester adjusted this benefit downward by 25%, yielding a three-year risk-adjusted total PV of $2,675,952.

$2.7 million

three-year benefit PV

38%

Chargeback cost avoidance: **38%** of total benefits

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|	Chargeback Cost Avoidance				
REF.	METRIC	CALC.	YEAR 1	YEAR 2	YEAR 3
B1	Pre-Signifyd chargeback rate	Customer estimate	0.61%	0.61%	0.61%
B2	Pre-Signifyd revenue	A5$_{initial}$	$98,000,000	$98,000,000	$98,000,000
B3	Chargeback cost	B1*B2	$597,800	$597,800	$597,800
B4	Chargeback cost multiplier	Assumption	2.4	2.4	2.4
B5	Total cost of chargeback	B3*B4	$1,434,720	$1,434,720	$1,434,720
Bt	Chargeback cost avoidance	B5	$1,434,720	$1,434,720	$1,434,720
	Risk adjustment	↓25%			
Btr	Chargeback cost avoidance (risk-adjusted)		$1,076,040	$1,076,040	$1,076,040

Improved Order Fulfillment Speed And Reduced Cancellations

The customer highlighted that 8% of orders were manually reviewed during peak season prior to deploying Signifyd. Due to the longer confirmation times and consumer desires to receive orders prior to Christmas, 4% of orders are requested for cancellation. The model accounts for 1% of those cancellation requests being saved by customer support, or not being applicable as they could have resulted in a true positive.

Potential risks and items that may result in a lower benefit value include:

› Customer support team is not able to persuade consumers to retract cancellation requests.

› Higher number of true positives based on a high chargeback rate.

To account for these risks, Forrester adjusted this benefit downward by 10%, yielding a three-year risk-adjusted total PV of $731,963.

$731,963

three-year benefit PV
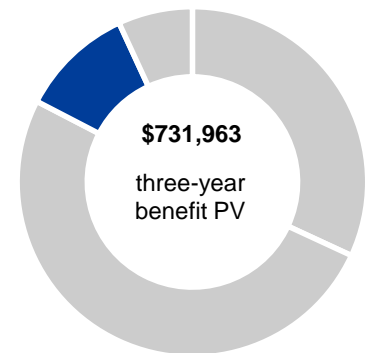
Improved order fulfillment speed and reduced cancellations: **10%** of total benefits

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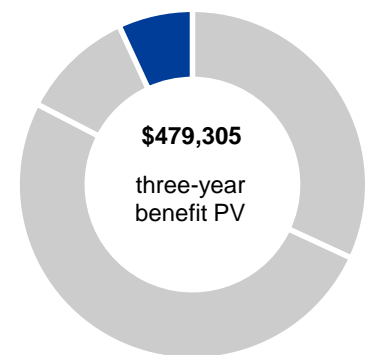| REF.	METRIC	CALC.	YEAR 1	YEAR 2	YEAR 3
	Improved Order Fulfillment Speed And Reduced Cancellations				
C1	Total orders	A4	320,585	320,585	320,585
C2	Peak season proportion	Customer estimate	35%	35%	35%
C3	Peak season orders	C1*C2	112,205	112,205	112,205
C4	In-depth review rate (delay potential)	Customer estimate	8%	8%	8%
C5	In-depth peak season reviews	C4*C3	8,976	8,976	8,976
C6	Cancel requests	Customer estimate	4%	4%	4%
C7	Potential orders cancelled	C6*C3	4,488	4,488	4,488
C8	Orders saved by customer support	Customer estimate	1%	1%	1%
C9	Canceled orders	C7-(C8*C3)	3,366	3,366	3,366
C10	Average order value	A6	$343.86	$343.86	$343.86
C11	Attribution	Assumption	100%	100%	100%
C12	Gross margin	Assumption	28.3%	28.3%	28.3%
Ct	Improved order fulfillment speed and reduced cancellations	C9*C10*C11*C12	$327,037	$327,037	$327,037
	Risk adjustment	↓10%			
Ctr	**Improved order fulfillment speed and reduced cancellations (risk-adjusted)**		**$294,333**	**$294,333**	**$294,333**

Fraud Expertise And Operational Cost Avoidance

The customer estimates that 8% of orders were manually reviewed and that each review took 8 minutes. Over a year, this resulted in 3,420 hours of order view time, which equate to 1.6 FTE. With a fully automated solution, the customer avoids the cost of this 1.6 FTE and can reallocate or have customer support staff focus specifically on customer success rather than ancillary tasks like order review.

Potential risks and items that may result in a lower benefit value include:

› Hybrid approach that still involves staff in-house fraud management team.

› Low review rate or minutes per review baseline.

To account for these risks, Forrester adjusted this benefit downward by 5%, yielding a three-year risk-adjusted total PV of $479,305.

$479,305

three-year benefit PV

Fraud expertise and operational cost avoidance: **7%** of total benefits

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Fraud Expertise And Operational Cost Avoidance					
REF.	METRIC	CALC.	YEAR 1	YEAR 2	YEAR 3
D1	Total orders	A4	320,585	320,585	320,585
D2	In-depth review rate (delay potential)	C4	8%	8%	8%
D3	Annual reviewed orders	D1*D2	25,647	25,647	25,647
D4	Minutes per review	Customer estimate	8	8	8
D5	Total review hours	(D4*3)/60	3,420	3,420	3,420
D6	FTE needed	D5/2080	1.6	1.6	1.6
D7	Staff salary	Year 1: assumption Year 2-3: $D7_{py}*103\%$	$120,000	$123,600	$127,308
Dt	Fraud expertise and operational cost avoidance	D7*D6	$197,283	$203,202	$209,298
	Risk adjustment	↓5%			
Dtr	**Fraud expertise and operational cost avoidance (risk-adjusted)**		**$187,419**	**$193,041**	**$198,833**

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 Signifyd and later realize additional uses and business opportunities, including:

› Provide more granularity around product model numbers, item numbers, product descriptions, product subcategories, etc.

› Investigate applicability of device fingerprint ID and biometrics.

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.

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Total Costs

| REF.	COST	INITIAL	YEAR 1	YEAR 2	YEAR 3	TOTAL	PRESENT VALUE
Etr	Signifyd solution cost	$0	$592,657	$592,657	$592,657	$1,777,972	$1,473,851
Ftr	Internal labor and implementation	$3,173	$0	$0	$0	$3,173	$3,173
	Total costs (risk-adjusted)	**$3,173**	**$592,657**	**$592,657**	**$592,657**	**$1,781,146**	**$1,477,025**

Signifyd Solution Cost

Based on the customer's commitment regarding contract term and a monthly usage minimum, the study uses their pricing of 50 basis points of the revenue from approved transactions. No further servicing or professional staffing fees are necessary. Signifyd's service fee only applies to approved orders, and thus merchants are not charged for any fraudulent orders that are declined.

Potential risks and items that may result in a higher cost value include:

› Modified use case and drastically different volume.

› Hybrid approaches.

› Discounting.

To account for these risks, Forrester adjusted this cost upward by 15%, yielding a three-year risk-adjusted total PV of $1,473,851.

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 interviewed organization expects risk-adjusted total costs to be a PV of more than $1.5 million.

$1.5 million

three-year cost PV
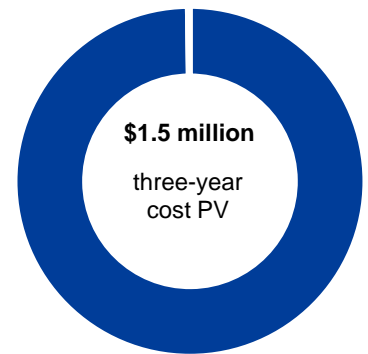
Signifyd solution cost: **99%** of total costs

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.

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Signifyd Solution Cost

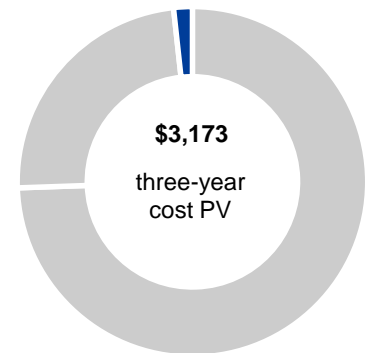| REF.	METRIC	CALC.	INITIAL	YEAR 1	YEAR 2	YEAR 3
E1	Total eCommerce revenue	A5		$103,070,866	$103,070,866	$103,070,866
E2	Signifyd fee	Assumption		0.5%	0.5%	0.5%
Et	Signifyd solution cost	E1*E2		$515,354.33	$515,354.33	$515,354.33
	Risk adjustment	↑15%				
Etr	**Signifyd solution cost (risk-adjusted)**			**$592,657**	**$592,657**	**$592,657**

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Internal Labor And Implementation

The customer estimated 40 hours of dedicated time to work with Signifyd for the initial deployment with immaterial ongoing management effort.

Potential risks and items that may result in a higher cost value include:

› Extended timeline.

› Complex deployment requirements.

To account for these risks, Forrester adjusted this cost upward by 10%, yielding a three-year risk-adjusted total PV of $3,173.

$3,173

three-year cost PV

Internal labor and implementation: **1%** of total costs

Internal Labor And Implementation

REF.	METRIC	CALC.	INITIAL	YEAR 1	YEAR 2	YEAR 3
F1	Lead salary	Assumption	$150,000			
F2	Dedicated hours	Customer estimate	40			
Ft	Internal labor and implementation	(F1/2080)*F2	$2,885	$0	$0	$0
	Risk adjustment	↑10%	☐			
Ftr	**Internal labor and implementation (risk-adjusted)**		**$3,173**	**$0**	**$0**	**$0**

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Financial Summary

CONSOLIDATED THREE-YEAR RISK-ADJUSTED METRICS

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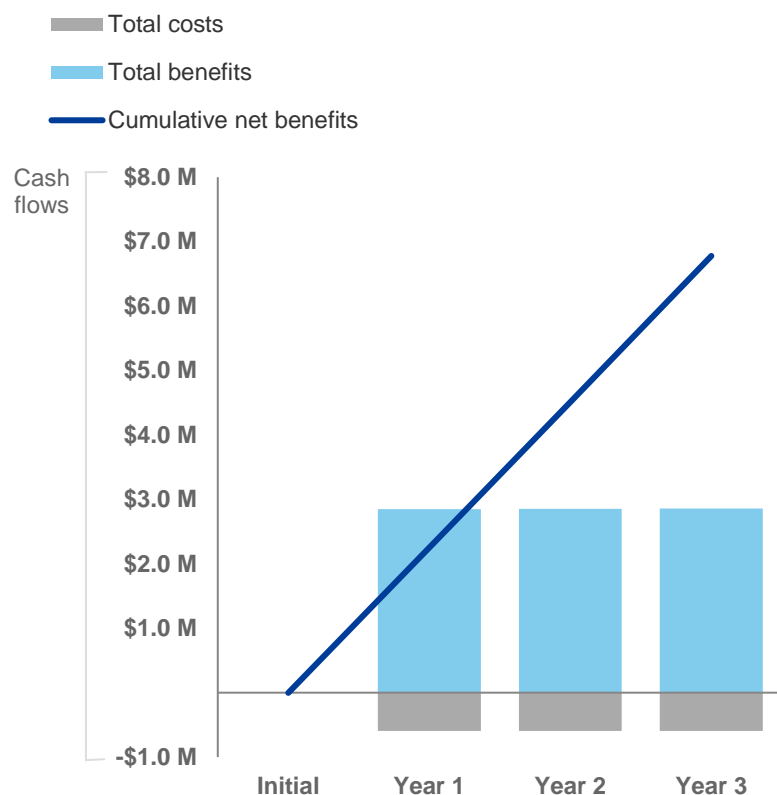
The financial results calculated in the Benefits and Costs sections can be used to determine the ROI, NPV, and payback period for the interviewed organization's investment. Forrester assumes a yearly discount rate of 10% for this analysis.

Total costs

Total benefits

Cumulative net benefits

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 Table (Risk-Adjusted)

	INITIAL	YEAR 1	YEAR 2	YEAR 3	TOTAL	PRESENT VALUE
Total costs	($3,173)	($592,657)	($592,657)	($592,657)	($1,781,146)	($1,477,025)
Total benefits	$0	$2,847,252	$2,852,875	$2,858,666	$8,558,793	$7,093,917
Net benefits	($3,173)	$2,254,595	$2,260,217	$2,266,008	$6,777,647	$5,616,892
ROI						380%
Payback period						0.0

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Signifyd: Overview

The following information is provided by Signifyd. Forrester has not validated any claims and does not endorse Signifyd or its offerings.

Signifyd was founded to make fraud-free eCommerce available to every business. Signifyd solves the challenges that growing eCommerce businesses persistently face: billions of dollars lost in chargebacks, customer dissatisfaction from mistaken declines, and operational costs due to tedious, manual transaction investigation.

As the world's largest provider of Guaranteed Fraud Protection, Signifyd provides a 100% financial guarantee against fraud and chargebacks on every approved order. This effectively shifts the liability for fraud away from eCommerce merchants, allowing them to increase sales and open new markets while reducing risk.

The company has integrations and partnerships with Salesforce Commerce Cloud, Magento, Shopify, BigCommerce, ThreatMetrix, and TSYS. Signifyd is also available through the Interceptas platform offered by Accertify, an American Express company.

Signifyd is in use by multiple companies on the Fortune 1000 and Internet Retailer Top 500 list. Signifyd was recognized by Forbes as one of the "50 Most Innovative Companies in Fintech," by Bloomberg as one of the "50 Most Promising Startups You've Never Heard Of," and as the Fraud Innovation Firm of the Year at the Finance Monthly Fintech Awards. Signifyd benefits from its location in the heart of San Jose's AI/machine learning hotbed, where it has cultivated an award-winning culture that earned it a spot in Entrepreneur's Top Company Cultures in America list for 2017 and as one of the Bay Area's Best Places to Work as recognized by the San Francisco Business Times and Silicon Valley Business Journal.

For more information, please visit www.signifyd.com.

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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.

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[1] Incremental revenue includes both benefits from improved acceptance rate and reduced order cancellations, which are shown as two separate benefit categories in this study. The incremental figure of $10.5 million also does not take into account any type of financial margin. The individual benefit tables and the overall ROI takes into account a 28.3% gross margin to make the results more relevant and realistic.

[2] "Brief: US Retail eCommerce: Readjust Continually To Combat Amazon, Highlights From The US Online Retail Forecast: 2016 To 2021," Forrester Research, Inc., October 17, 2016.

[3] "The Forrester Wave™: Enterprise Fraud Management, Q1 2016," Forrester Research, Inc., January 27, 2016.

[4] Acceptance rate is measured based on transactions by the customer and this study's model. Signifyd suggests that an acceptance rate based on revenue may be more relevant especially for organizations with a wide range of order values. Alternatively, organizations may also consider inspecting acceptance rates and chargeback frequency based on tiers of order value.

[5] "2016 LexisNexis® True Cost of Fraud^{SM}," LexisNexis, May 2016 (https://www.lexisnexis.com/risk/downloads/assets/true-cost-fraud-2016.pdf). Readers may consider using the 2.4 multiplier and then adjusting conservatively for risk as needed. Alternatively, readers can also view guaranteed fraud management as a means to avoid the $1 of chargeback loss and the other $1.40 as administrative loss that may likely also see a reduction. A solution like Signifyd may also likely reduce overall chargebacks and true positive basis.

[6] A dropship program is a supply chain, particularly order fulfillment, method that enables a retailer to rely on a third party (e.g., manufacturer, wholesaler, another retailer) to ship items to the customer after the customer purchases it from a merchant. This method allows the merchant to keep less inventory in stock while also increasing the complexity of supply chain and transaction systems.

[7] "Stop Billions In Fraud Losses With Machine Learning," Forrester Research, Inc., April 6, 2015.

[8] "Why machine learning is not the silver-bullet solution to online fraud," Signifyd, February 17, 2016 (https://www.signifyd.com/blog/2016/02/22/why-machine-learning-is-not-the-silver-bullet-solution-to-online-fraud).

[9] Attribution is set to 100% in this study as order acceptance is an isolated variable that is improved specifically due to Signifyd as opposed to any other business initiatives. In other technology investment models, attribution is typically not 100% as it is difficult to isolate effects of specific technology solutions and attribute 100% of revenue growth to a specific sales, marketing, or customer engagement technology. The attribution metric is included in case readers want to modify the attribution rate from the suggested 100% for this study.

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