A study conducted by Centercode
with real customers in April 2020

The ROI of Testing Pre-Release Products with Centercode

centercode

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Executive Summary

Key Benefits



Cost savings of $620K
to run alpha and beta tests



75% increase in tester
engagement, including 3,600
new pieces of feedback



Avoid $2.68M in costs
by fixing bugs before release



10% increase in
engineering efficiency

Centercode provides comprehensive beta testing software, managed services, and tester sourcing for test managers, product managers, and engineering professionals. Centercode conducted a Return-on-Investment ("ROI") study to examine the potential return on investment that enterprises could realize with Centercode. The purpose of this study is to provide readers with a framework to evaluate the potential financial impact of Centercode on their organizations.

Centercode's research team interviewed seven customers to better understand the benefits, costs, and risks associated with investing in its comprehensive customer testing solutions. These enterprises all recognized the importance of continuous product testing but faced major challenges with managing the quantity and scope of projects needed to guarantee high-quality products.

Beta testing was very time-consuming. It was also difficult to automate at the scale necessary to keep up with development. Meanwhile, teams running alpha and beta tests saw minimal engagement from testers despite extensive effort, resulting in little usable feedback or quantifiable fixes from pre-release tests. Engineering, QA, and product teams needed to conduct more efficient and conclusive alpha and beta tests but did not have adequate expertise and support to do so.

Interviewees turned to Centercode to increase productivity, but increased productivity was not the only benefit. They also gained the ability to scale program outputs by running more tests with existing resources, capturing more feedback by keeping testers engaged, prioritizing bugs faster, and accelerating processes to integrate projects into agile sprints. Centercode increased both the quantity and quality of product testing projects, resulting in tangible benefits within the products themselves.

By partnering with Centercode's certified testing professionals, interviewees were able to implement best practices, fill in experience gaps, and get partial or full project management support when they didn't have the capacity or bandwidth to conduct testing internally. With tester sourcing services built directly into the tool and a strong pipeline of feature enhancements, customers pointed to Centercode as a comprehensive software platform and invaluable partner in maturing their research practices and supporting measurable results from customer testing.

Key Findings

Quantified benefits. The interviewed organizations experienced the following risk-adjusted benefits:

- **Reduced time to complete a study while saving over $620K in labor costs**. Centercode's platform and comprehensive testing services enabled organizations to run beta tests without incurring major labor expenses in the process. A composite organization designed for a three-year model (see the Composite Organization section for more information) cut 200 hours of labor across 36 projects conducted with Centercode.
- **Increased project quality by collecting over 3,600 new pieces of tester feedback**. Testers recruited through Centercode were more engaged with and enthusiastic about beta testing. This increased participation by 75%, bringing in more valuable feedback like product issues, ideas, and praise.
- **Avoided over $2.8M in costs by resolving major product bugs prior to release**. Bugs found after release were often detrimental to product sales. By catching these bugs prior to release, product, engineering, and QA departments saved enormous amounts of time and money. On average, Centercode validated 30 bugs per test.
- **Increased engineering efficiency by 10%**. Centercode enabled program managers to quickly prioritize incoming feedback, which in turn let engineers focus on fixing high-impact issues. Ultimately, this produced a cost savings of $121,500.

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

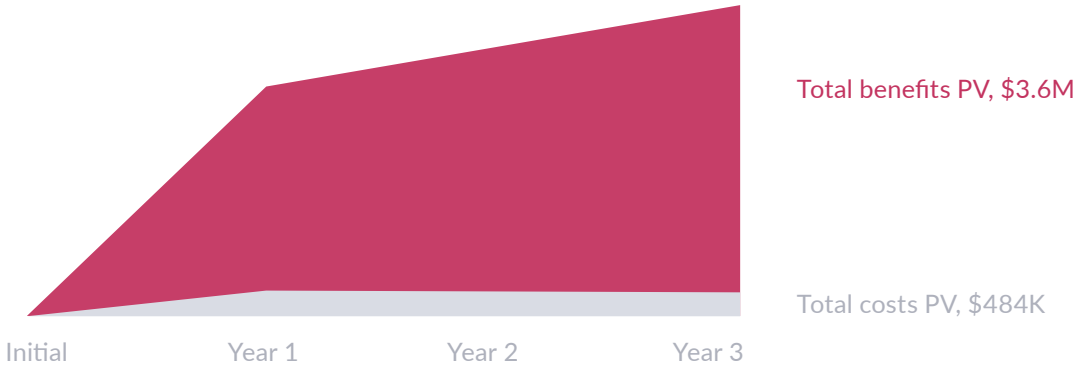
- Gained an established framework/methodology for testing
- Improved tester pool by recruiting testers that fit the organization's target market
- Established a customer-centric culture by incorporating tester feedback into the product development life cycle
- Maintained all necessary data points in one single tool

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

- Centercode platform and services costs $445,500, based on the quantity, scope, and features of tests as modeled in this analysis.
- Onboarding costs for platform setup, three-day training, and support for the first eight weeks, valued at $38,610.

Financial Summary

Centercode's interviews with seven existing customers and subsequent financial analysis found that a composite organization based on these organizations experienced benefits of $3,611,369 over three years versus costs of $484,110, adding up to a net present value (NPV) of $3,127,259 and an ROI of 646%.



ROI Study Methodology

From the information provided in the interviews, Centercode constructed a return-on-investment analysis for those organizations considering implementing its platform and/or service solutions in the future. The objective of the framework is to identify the cost, benefit, flexibility, and risk factors that affect the investment decision. Centercode took the following multistep approach to evaluate the impact it can have on an organization:

Due Diligence

Interviewed program managers, analysts, and management stakeholders to gather data relative to Centercode.

Customer Interviews

Obtained data with respect to costs, benefits, and risks from interviewees in seven different organizations currently using Centercode.

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 return methodology, and risk-adjusted the financial model based on issues and concerns of the interviewed organizations.

Case Study

Employed four fundamental elements of return-on-investment in modeling Centercode's impact: benefits, costs, flexibility, and risks. Given the increasing sophistication that enterprises have regarding ROI analyses related to IT investments, Centercode ROI methodology serves to provide a complete picture of the economic impact of purchase decisions.

Interviewed Organizations

For this study, Centercode conducted interviews with seven customers, including the following:

COMPANY	INDUSTRY	REGION	SIZE	INTERVIEWEES
Home automation company specializing in smart thermostats, smart security cameras, and other devices	Consumer Electronics	Global	$5B Revenue 13,000 Employees	Global Director, Product & Strategy
Industry pioneer and maker of robotic home care products	Consumer Electronics	Global	$1.2B Revenue 1,100 Employees	Senior Principal Engineer
Multinational conglomerate providing products ranging from consumer electronics to healthcare	Consumer Electronics	Global	$121.6B Revenue 205,000 Employees	Beta and Usability Testing Associate
Finance software company with over 50 million personal and professional users	Enterprise Software	National	$6.8B Revenue 12,000 Employees	Supportability Specialist
Home theater company that delivers smart voice-activated hub and controller products	Consumer Electronics	National	$16.8M Revenue 69 Employees	Beta Program Manager
Provider of premium smart fitness equipment for home and professional use	Consumer Electronics	Global	$719.2M Revenue 1,800 Employees	Senior Director Program Management
Consumer products company offering a wide range of products from personal care to household appliances	Telecom	National	$43.6B Revenue 98,000 Employees	Corporate Field Quality Manager

Key Challenges

Businesses are becoming more competitive with each passing year, and the expectations for the products customers bring into their homes, offices, and everyday lives are escalating as well. B2B and B2C organizations understand that succeeding in today's technology landscape means using programs like beta testing to deliver a great product that offers an amazing experience right from the start. The seven companies interviewed during the study struggled with several key challenges when it came to executing alpha and beta tests:

- **Alpha and beta projects were costly and extremely time-consuming**. Managing the moving parts of a beta test — like project planning, recruiting testers, organizing weekly activities, collecting and triaging feedback, and reporting on insights — cost full-time test managers upwards of 180 hours for a single project.
- **Scaling testing efforts would require a disproportionate level of investment**. To meet the increasing demand of their testing efforts and ensure high product quality, they would need to hire additional employees or outsource projects to expensive third-party firms.
- **Alpha and beta were too slow to be integrated into the agile development process**. Because their model for executing alpha and beta projects took months to complete, these projects could not be incorporated into a two to four-week agile sprint. Product teams were vastly outpacing testing and validation, which led to lower quality products or reworks that increased costs and delayed launch.
- **Disparate systems and manual processes created waste and inaccuracies**. Using and managing email, survey tools, spreadsheets, and other tools during testing required immense time and effort. The tools made it difficult to organize data, analyze it, and deliver effective results.
- **It was difficult to surface and prioritize information for internal teams**. Analyzing test data and implementing a process for prioritizing it required repeated time and effort. It was a big hurdle in getting the most important information to the right teams and scaling program efforts.
- **Recruiting testers and keeping them engaged was a constant battle**. Program managers had a difficult time finding testers from their product's target market. During testing, participation remained low, and beta tests weren't generating enough feedback to deliver conclusive



Full-time test managers require upwards of 180 hours for a single project.

> "I struggled with housing all of my data — it was split between numerous Excel docs, SurveyMonkey, etc. Centercode's software solved all these challenges for me. I can organize and run three times as many projects with more testers and more feedback."
>
> Beta and Usability Associate at a multinational consumer electronics conglomerate

results. The Senior Director of Program Management at a smart fitness company said she had trouble getting "more directed feedback."

Solution Requirements

To solve these challenges, organizations searched for a solution that could:

- Provide a comprehensive way to manage projects, including advanced capabilities for tester recruitment and engagement, project management, feedback management, surveys, reporting, and dashboards.
- Enable test managers to conduct concurrent projects with less effort and enable other professionals, like product or program managers, to conduct one-off projects in tandem with their primary job duties.
- Automate reports, visualizations, and dashboards, as well as reduce the time required for analysis by exporting issues, ideas, and praise to business intelligence platforms and other tools used by stakeholder teams.
- Provide professional services to help researchers meet deadlines while controlling costs, and give non-researchers, such as designers and product managers, the expertise and support needed to execute beta tests.
- Provide remote user testing capabilities without requiring users to download extensive software or get specialized hardware.
- Support native-language testing with prompts and directions that make international testing seamless and more accurate.



Using Centercode increased time efficiency by 40%.



Centercode customers increased project quality year over year by capturing over 3,600 new pieces of feedback.

Key Results

The interviews revealed that without Centercode, test managers could not have handled their organizations' project loads. Their investment in Centercode led to several key results, including:

- Increased time efficiency of 40%, reducing the amount of hours needed to complete a study from an average of 180 hours to less than 110 hours with Centercode. This enabled organizations to increase the number of tests run each year, as well as save labor costs.
- Increased project quality by collecting over 3,600 new pieces of feedback. Centercode provided test teams with stronger data and automated solutions for sharing results. This ultimately helped product

Composite Characteristics



Tech enterprise with
4 test managers



10 projects in year one



50 testers per project



20% more projects each year

teams and executives to understand the value of beta and alpha testing and why it was important to invest in those programs.

- The ability to run new tests and integrate customer testing into short, agile sprints.
- Reduced costs during program scaling by lessening the need for third-party resources and new hires.
- Increased issue resolutions before releasing their products.

Composite Organization

Centercode constructed a composite organization using an ROI framework and an aggregate financial analysis that is representative of the seven companies interviewed. The composite organization synthesized from the customer interviews has the following characteristics:

- The organization is a global, multibillion dollar technology enterprise. Before adopting Centercode, it employed four test managers.
- The organization conducts 10 projects per year.
- On average, 50 testers are required per project.
- Leadership views customer obsession as essential to the company's long-term success. Customer testing is considered to be a key initiative for improving the customer experience.
- The organization has established a strategic imperative to increase the quantity, scope, and quality of alpha and beta projects, with a plan to increase the number of projects by 20% year over year.
- The organization adopted Centercode to enable test managers to meet the increased demand for testing. They realized that without augmenting their current resources and tools, they would ultimately incur excessive costs.

TEST CAPACITY	YEAR 1	YEAR 2	YEAR 3
Number of test managers	4	4	4
Projects per year with Centercode	10	12	14
Number of testers per project	50	50	50
Time spent per project	180	180	180

Analysis of Benefits

QUANTIFIED BENEFIT DATA AS APPLIED TO THE COMPOSITE

TOTAL BENEFITS

Ref.	BENEFIT	YEAR 1	YEAR 2	YEAR 3	TOTAL	PRESENT VALUE
Atr	Reduced project time	$194,400	$233,280	$272,160	$699,840	$629,856
Btr	New feedback captured per year	1,013	1,215	1,418	3,645	-
Ctr	Total cost savings	$882,720	$1,059,264	$1,235,808	$3,177,792	$2,860,013
Dtr	Engineering efficiency	$45,000	$45,000	$45,000	$135,000	$121,500
	Total Benefits (risk-adjusted)	$1,122,120	$1,337,544	$1,552,968	$4,012,632	$3,611,369

Reduced Project Time

Interviewees shared that the testing life cycle (planning, recruiting, collecting feedback, analyzing feedback, and reporting) was very time-intensive. With product iterations happening in quick, agile sprints, test managers needed a solution that would bring the testing process up to speed.

Interview Findings

Implementing Centercode changed everything. Using the platform allowed test managers to centralize data in one tool instead of flipping between hundreds of emails and dozens of spreadsheets. Analyzing and prioritizing data became exponentially easier, in turn making it easier to auto-generate and share custom reports. As a result, interviewees cited saving massive amounts of time.

- According to the Supportability Specialist at a finance software company, "We're reducing costs, and it's all money we're saving by spending less time testing."
- Similarly, Centercode enabled a home automation company to collect more feedback in less time. "Without Centercode, I was running much smaller, internal tests."

Composite Organization

The modeled benefit of Centercode to the composite organization involved the following assumptions:

- Completing an entire test would have taken an average of 180 hours. Each Centercode test requires only 108 hours of labor — a time cost reduction of 40%.
- A goal of 10 tests in Year 1 is set by leadership, increasing to 12 in Year 2 and 14 in Year 3.

- Centercode lays the groundwork for the organization's four researchers to achieve their initial goal of 10 tests per year without significant additional hiring.
- Program managers are paid a fully loaded salary of $75 per hour, equivalent to an annual salary of $120,000 burdened at 30% for benefits, insurance, and other costs of employment.

Risks to Impact

The impact of this benefit may vary based on a variety of risks, such as:

- Actual number of tests completed annually
- Labor required per test, which fluctuates based upon the specific type of feedback needed
- Number of program managers employed
- Average fully loaded salary of program managers

To account for these risks, Centercode adjusted this benefit downward by 10%, yielding a three-year risk-adjusted total PV of $629,856.

LABOR REDUCTION: CALCULATION TABLE

Ref.	METRIC	CALC	YEAR 1	YEAR 2	YEAR 3
A1	Time per project (hours)		180	180	180
A2	Time saved with Centercode		40%	40%	40%
A3	Hours saved per project	A1*A2	72	72	72
A4	Program managers employed	Assumption	4	4	4
A5	Total hours saved per project with Centercode	A3*A4	288	288	288
A6	Program manager's fully loaded hourly salary		$75	$75	$75
A7	Cost savings per project	A5*A6	$21,600	$21,600	$21,600
A8	Projects run per year	Assumption	10	12	14
At	Total savings	A7*A8	$216,000	$259,200	$302,400
	Risk adjustment	↓10%			
Atr	Total savings (risk-adjusted)		$194,400	$233,280	$272,160

Increased Project Quality

The goal of customer testing is to collect and use pre-release product feedback to make improvements to that product before it hits the market. Interviewees cited many benefits that come from customer testing: surfacing bugs, gauging how consumers will react when the product is released, and facilitating overall improvement.

However, the ability to reap these benefits depends heavily on the amount of feedback generated during a project. Many program managers find that maintaining tester participation and generating a high volume of quality feedback is extremely difficult for both internal and external tests.

With Centercode, recruiting engaged participants who remain active for the duration of the test became a much more streamlined and achievable task. In fact, many interviewees claimed that both participation and the validity of the data increased due to a tester pool that was more aligned with the product's target market.

Composite Organization

The modeled benefit of Centercode to the composite organization involved the following assumptions:

- The organization requires at least 50 testers per test.
- There are 10 tests run in Year 1. This increases by 20% year over year, due to time saved by Centercode. Otherwise, the number of tests would remain at 10 per year.

Risks to Impact

The impact of this benefit may vary based on a variety of risks, such as:

- Actual number of tests completed annually
- Number of testers required per project
- Feedback submitted per tester

To account for these risks, Centercode adjusted this benefit downward by 10%, yielding a three-year risk-adjusted total PV of $582,617.

INCREASED PROJECT QUALITY: CALCULATION TABLE

Ref.	METRIC	CALC	YEAR 1	YEAR 2	YEAR 3
B1	Number of testers on a project	Assumption	50	50	50
B2	Increase in participation with Centercode		75%	75%	75%
B3	Number of testers on a project with Centercode	B1+(B1*B2)	88	88	88
B4	Feedback submitted per tester		3	3	3

Ref.	METRIC	CALC	YEAR 1	YEAR 2	YEAR 3
B5	Tester feedback per project without Centercode	B1*B4	150	150	150
B6	Tester feedback per project with Centercode	B3*B4	263	263	263
B7	Projects run per year	Assumption	10	12	14
B8	Total feedback per year without Centercode	B5*B7	1,500	1,800	2,100
B9	Total feedback per year with Centercode	B6*B7	2,625	3,150	3,675
Bt	New feedback captured per year	B9-B8	1,125	1,350	1,575
	Risk adjustment	↓10%			
Btr	New feedback captured per year (risk-adjusted)		1,013	1,215	1,418

Cost Saved Resolving Issues

One of the primary reasons organizations test products prior to release is to discover and fix deep-seated bugs; they become very costly to fix once the product is already in the hands of consumers.

Centercode provided interviewees with an efficient platform for testing their products and prioritizing issues submitted by testers. This not only saved time during the testing process, but it also reduced costs by highlighting key issues before release.

Interview Findings

The Senior Director of Program Management of one smart fitness company described the benefit of testing with customers from the product's target market. "We validate assumptions or find issues that we wouldn't encounter in our own testing."

Not only did Centercode help interviewed organizations uncover new issues, but it brought the voice of the consumer into the product development life cycle. They went on to say: "It's a valuable data point. One of our values is being customer-centric. With user feedback prior to a release, we have more time to incorporate user feedback into product development."

Composite Organization

The modeled benefit of Centercode to the composite organization involved the following assumptions:

- There are 10 tests run in Year 1. This increases by 20% year over year due to time saved by Centercode. Otherwise, the number of tests would remain 10 per year.
- For every study conducted using Centercode, 30+ critical bugs are validated.
- The cost of fixing a bug is significantly less prior to product release than if the bug is discovered post-release. This difference in cost is nearly $5,000 per bug.

Risks to Impact

The impact of this benefit may vary based on a variety of risks, such as:

- Actual number of tests completed annually
- Number of critical bugs that need to be resolved (additional bugs with less severity may also be fixed prior to release)
- Severity and time required to resolve bugs

To account for these risks, Centercode adjusted this benefit downward by 10%, yielding a three-year risk-adjusted total PV of $2,860,013.

COST SAVED RESOLVING ISSUES: CALCULATION TABLE

Ref.	METRIC	CALC	YEAR 1	YEAR 2	YEAR 3
C1	Projects run per year	Assumption	10	12	14
C2	Issues captured per project		30	30	30
C3	Issues captured per year	C1*C2	300	360	420
C4	Cost per bug if found after release		$5,769	$5,769	$5,769
C5	Cost per bug if found before release		$865	$865	$865
C6	Savings per bug captured	C4-C5	$4,904	$4,904	$4,904
Ct	Total savings per year	C3*C6	$1,471,200	$1,765,440	$2,059,680
	Risk Adjustment	↓10%			
Ctr	Total cost savings (risk-adjusted)		$1,324,080	$1,588,896	$1,853,712

Increased Engineering Efficiency

Prior to using Centercode, interviewees identified prioritizing feedback as one of the major challenges of customer testing. Prioritization allows other departments, like QA and engineering, to easily see which issues are the most important to tackle.

Interviewees found that the Centercode Platform streamlined the otherwise time-consuming, manual task of individually sifting through and prioritizing feedback. By automatically scoring feedback based on severity, popularity, and impact, Centercode floated high-priority issues to the top, which gave engineering teams the visibility they needed to fix key issues in real time — thereby increasing efficiency.

Interview Findings

One of Centercode's customers, the Supportability Specialist at a finance software company, elaborated: "There's less noise and less to filter through." Not only did Centercode save program managers time, the overall project costs continued to decrease by saving engineers time as well.

Composite Organization

The modeled benefit of Centercode to the composite organization involved the following assumptions:

- Engineers are paid a fully loaded annual salary of $100,000 burdened at 30% for benefits, insurance, and other costs of employment.
- Five engineers are involved with the customer testing team.

Risks to Impact

The impact of this benefit may vary based on a variety of risks, such as:

- Number of engineers involved with the customer testing team
- Severity and time required to resolve bugs

To account for these risks, Centercode adjusted this benefit downward by 10%, yielding a three-year risk-adjusted total PV of $121,500.

10% ENGINEERING EFFICIENCY: CALCULATION TABLE

Ref.	METRIC	CALC	YEAR 1	YEAR 2	YEAR 3
D1	Number of engineers		5	5	5
D2	Annual salary of an engineer		$100,000	$100,000	$100,000
D3	Improved efficiency with Centercode		10%	10%	10%
Dt	Improved engineering efficiency	D1*D2*D3	$50,000	$50,000	$50,000
	Risk Adjustment	↓10%			
Dtr	Improved engineering efficiency (risk-adjusted)		$45,000	$45,000	$45,000

> "It's less noise, less to filter through. This is saving me time and bringing in better, more organized feedback."
>
> Supportability Specialist at a finance software company

> "We were looking for early testing and field feedback for people who aren't close to our product. When it's internal they're too close to the product."
>
> Corporate Field Quality Manager at a national telecom provider

Unquantified Benefits

Centercode's customers also identified that they achieved several key benefits from the investment that could not be quantified in this study:

- **Gained an established framework/methodology for testing**. Testing was primarily done internally. Due to a lack of processes, testing was reactive and took up too much time in the product development cycle. Centercode provided an established framework for testing that cut down on time and allowed testing to fit into shorter, agile sprints.
- **Improved tester pool by recruiting testers that fit the organization's target market**. Organizations received more valid data by receiving feedback from testers who were target consumers. Centercode enabled interviewees to go beyond internal testing and filter testers by key parameters. This allowed them to recruit more engaged, representative testers for their projects.
- **Established a customer-centric culture by incorporating tester feedback into the product development life cycle**. Being "customer-obsessed" sets the precedence that customers and their needs are put first when developing new products. By bringing customers into the product development life cycle, organizations were able to establish that precedent and drive higher overall customer satisfaction.
  - For the Senior Director of Program Management at the smart fitness company, Centercode was essential in bringing this value to the product team. "One of our values is being customer-centric. So if we have user feedback prior to a release, that gives us more time to incorporate user feedback into product development. We can validate assumptions or find new things to incorporate."
- **Maintained all necessary data points in one single tool**. Centercode significantly decreased administrative effort, allowing program managers to focus on more interesting and valuable tasks rather than copying and pasting data from a variety of tools into a single place. Managers valued being able to use just one comprehensive tool.
  - The Beta and Usability Testing Associate at a multinational consumer electronics conglomerate stated that one benefit of Centercode was having all data in one place. "Centercode enables you to run larger, longer tests because of the ability to manage so much in one place."

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	Centercode license and professional services		$165,000	$165,000	$165,000	$495,000	$445,500
Ftr	Internal labor	$42,900					$38,610
	Total cost (risk-adjusted)	$42,900	$165,000	$165,000	$165,000	$537,900	$484,110

Centercode License and Professional Services

Centercode costs are driven by an annual fee for software and a quarterly fee for professional services. Professional services are used by organizations that need additional test managers to assist in executing tests, completing specific tasks like recruiting testers or setting up integrations, and providing program and platform support. Interviewees particularly enjoyed Centercode's support team and how quickly they're able to resolve issues and offer assistance.

Composite Organization

The modeled cost of Centercode to the composite organization involved the following assumptions:

- The composite organization values Centercode's professional services and support to the internal team.
- The composite organization utilizes Centercode's optional platform onboarding service.

Risks to Impact

The cost of Centercode's offerings may vary based on a variety of factors, such as:

- The platform edition chosen by the organization. Editions have various features, recruitment specifications, and levels of training.
- The number of projects needed and whether the organization uses Centercode test managers or internal test managers.
- The complexity and length of test projects, which may require more Centercode labor, expertise, or support.

To account for these risks, Centercode adjusted this cost upward by 10%, yielding a three-year risk-adjusted total PV of $445,500.

CENTERCODE SOFTWARE AND SERVICES: CALCULATION TABLE

Ref.	METRIC	CALC	YEAR 1	YEAR 2	YEAR 3
E1	Software Costs		$24,000	$24,000	$24,000
E2	Service Costs		$126,000	$126,000	$126,000
Et	Centercode software and services	E1+E2	$150,000	$150,000	$150,000
	Risk Adjustment	↑10%			
Etr	Centercode software and services (risk-adjusted)		$165,000	$165,000	$165,000

Onboarding and Training

Most organizations start their implementation of Centercode off with an onboarding service. The initial cost for the service covers three days of training, as well as eight weeks of active platform configuration and support. The onboarding training not only covers platform setup and test management, but it reviews best practices for test management as well.

Composite Organization

The modeled cost of Centercode's onboarding service to the composite organization involved the following assumptions:

- Five employees attend the training sessions.
- Program managers are paid a fully loaded salary of $75 per hour, equivalent to an annual salary of $120,000 burdened at 30% for benefits, insurance, and other costs of employment.

Risks to Impact

The cost of Centercode's onboarding service may vary based on a variety of factors, such as:

- Number of attendees to the onboarding training
- Average fully loaded salary of program managers

To account for these risks, Centercode adjusted this cost upward by 10%, yielding a three-year risk-adjusted total PV of $38,610.

ONBOARDING COST: CALCULATION TABLE

Ref.	METRIC	CALC	INITIAL
F1	Onboarding cost		$30,000
F2	Number of employees who attend training		5

Ref.	METRIC	CALC	INITIAL
F3	Training hours		24
F4	Total training hours	F2*F3	120
F5	Program manager's fully loaded hourly salary	A6	$75
Ft	Total onboarding cost	F1+F4*F5	$39,000
	Risk Adjustment	↑10%	
Ftr	Total onboarding cost (risk-adjusted)		$42,900

What's Next for Customer Testing

HOW CENTERCODE HELPED INTERVIEWEES TAKE THE NEXT STEP

Today's products are increasingly sophisticated and deeply integrated within highly connected tech ecosystems. At the same time, modern markets are hyper-competitive, compromised of impatient, unforgiving audiences where reviews on even a single channel like Amazon drive products to meteoric success or dismal failure.

As beta program managers look to the future, they know the path to long-term success starts with driving program efficiencies, improving results, and scaling with their organization's growing needs.

Centercode's research proves that testing a product with real customers prior to launch reaps financial rewards and foreshadows how the product will perform in the market. In addition to connecting organizations directly to their target market and streamlining the collection, organization, and analysis of their feedback, Centercode tracks product KPIs, including star ratings and net promoter scores (NPS). The professionals interviewed for this study shared that these measurable benchmarks for success eased the minds of stakeholders as well as teams involved in development.

- Centercode helped teams perfect products. An interviewee described the impact of testing as "a guarantee that all the work we've been doing is efficient. It puts pressure on stakeholders to create better products."
- Centercode minimized the risk of launching blind. A quality manager shared the overall impact of launching without testing. "It's all about brand image in the marketplace. If we're not able to detect issues during beta testing, we can turn a lot of people off. Are we willing to take the risk of launching as is? It could have a huge financial impact."

Securing more targeted feedback in less time is a critical step and a preliminary one. Centercode is uniquely positioned not only to help companies perfect their products but to continuously iterate and improve their testing programs as well. This fuels organizations with a steady supply of customer feedback to keep pace with evolving ecosystems and steadily navigate shifting customer expectations.

With Centercode, program managers feel reassured about the launch of their product. Their message is clear: long-term improvement of their beta testing processes drives long-term success for their products. Interviewees felt that they could not perform customer tests as efficiently or effectively without Centercode.

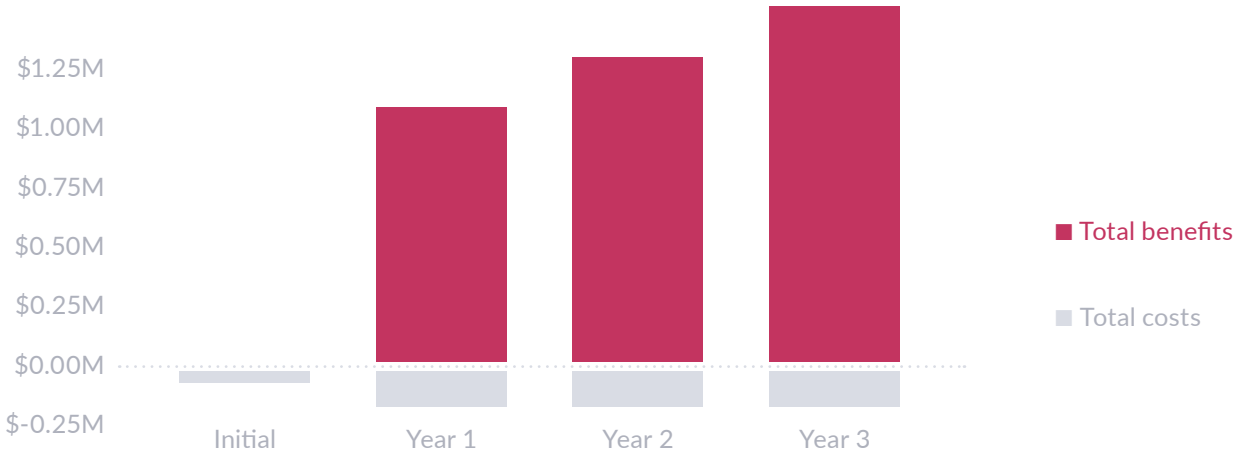
Learning More

Centercode has an extensive library of content regarding best practices for alpha, beta, and delta testing. It also offers a host of financial, impact, and industry reports collected from professionals in the field. This *Customer Validation Industry Report* is an excellent starting point for understanding the key challenges and proven pathways to success for today's customer testing programs. Check out the report, or to learn more, visit *centercode.com*.

Financial Summary

CONSOLIDATED THREE-YEAR RISK-ADJUSTED METRICS

CASH FLOW CHART (RISK-ADJUSTED)



CASH FLOW CHART (RISK-ADJUSTED)

	INITIAL	YEAR 1	YEAR 2	YEAR 3	TOTAL	PRESENT VALUE
Total costs	($42,900)	($165,000)	($165,000)	($165,000)	($537,900)	($484,100)
Total benefits		$1,122,120	$1,337,544	$1,552,968	$4,012,632	$3,611,369
Net benefits	($42,900)	$957,120	$1,172,544	$1,387,968	$3,474,732	$3,127,259
ROI						646%
Payback period						<6 months

**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.*

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Centercode Overview

While investing in market research, quality testing, user experience, and product analytics are absolutely essential to building a good product, delivering a great product requires getting it out of the office and into the hands and true environments of its future users.

Enter Centercode.



Our platform and managed service customer testing solutions turn good technology into great products. As the global leader in beta and delta testing, we've partnered with hundreds of iconic companies to implement, improve, grow, and manage their customer testing programs. We'll help you bridge the gap in the last mile of development to ensure high-quality, crowd-pleasing, and market-dominating results.

Customer Validation Platform

The **Centercode Platform** is purpose-built on top of proven customer testing best practices. It allows your entire team to simplify, centralize, automate, and streamline their efforts, from recruiting ideal testers, to managing programs, to surfacing and sharing meaningful insights.

Managed Testing Services

Our **Test and Program Management Services** deliver data-driven, impactful recommendations designed to maximize your efforts. Your Centercode certified expert will orchestrate your entire customer testing program, from recruiting targeted testers, to managing complex tests and providing prioritized insights, to cultivating your own community of on-demand testers.

Global Tester Network

Betabound, our global tester network of hundreds of thousands of profiled testers is the springboard for our customers' recruitments. You can also leverage the personal networks of our ambassadors to extend project recruitments and overall community growth.