

A Forrester Total Economic Impact™
Study Commissioned By
Mobile Optimization Initiative
April 2019

The Total Economic Impact™ Of The Mobile Optimization Initiative

Cost Savings And Business Benefits
Enabled By Participating In The Mobile
Optimization Initiative Community

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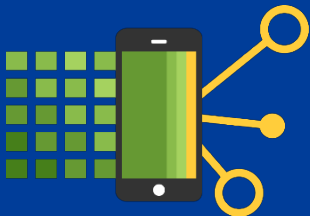
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Executive Summary

Benefits And Costs (PV):



Lift in mobile and desktop revenue:
9% to 15%



Productivity lift saves over 1,700
optimization hours each year:
\$194,595



Potential cost savings from failing
experiments:
\$83,498



Initial and ongoing costs to
participants in the Community:
\$179,978

The Mobile Optimization Initiative is a Community of merchants, system integrators (SIs), and technology companies established with the goal to innovate better mobile buying experiences through collaborative experimentation and insights sharing. The Community was founded and sponsored by leading system integrators (SIs), PayPal, Magento (an Adobe Company) and HiConversion to combat the mobile revenue gap, which is a major impediment for the continued growth of eCommerce. The gap refers to the unrealized revenues from mobile shoppers who generate less revenue per visit than desktop shoppers. The Community aims to close that divide by helping merchants find ways to improve the mobile shopping experience.

Key components of the Community are:

- ▶ HiConversion's Collaborative Customer Experience Optimization (C-CXO) and analytics platform that provides large-scale multimerchant testing and personalization.
- ▶ Preprogrammed standardized optimization experiments to reduce the cost, risk, and complexity of optimization.
- ▶ Anonymized multimerchant insights to enable knowledge sharing among participants.

The Mobile Optimization Initiative commissioned Forrester Consulting to conduct a Total Economic Impact™ (TEI) study and examine the potential ROI enterprises may realize by participating in the Mobile Optimization Initiative. The purpose of this study is to provide readers with a framework to evaluate the potential financial impact on their organizations by joining the Community.

To better understand the benefits, costs, and risks associated with this investment, Forrester interviewed four merchants and their system integrators with experience with the Mobile Optimization Initiative.

Prior to joining the Community, the merchants did not perform mobile-specific optimizations and performed limited A/B testing for desktop optimization. Merchants reported several drawbacks with these attempts: 1) the lack of meaningful customer experience (CX) analytics; 2) no mechanism for effective mobile or checkout funnel-specific optimization; and 3) the inability to effectively scale to reach full potential with continuous CX optimization.

Forrester developed a composite organization based on data gathered from merchant and SI interviews to reflect the total economic impact that the Community could have on an organization. The composite, *Andravidia, Inc.*, is representative of the merchants Forrester interviewed and is used to present the aggregate financial analysis in this study. All values are reported in a risk-adjusted, three-year present value (PV) unless otherwise indicated. The composite organization in this study has these characteristics:

- › **Industry:** eCommerce
- › **Revenues:** \$7.5M, 35% mobile
- › **Monthly visitors:** 350,000
- › **Operating margin:** 12%

The composite participates in a sponsored 60-day trial, after the trial concludes, Andravida chooses to continue its optimization efforts as a premium member of the MOI Community that uses paid professional services provided by a SI and HiConversion's software-as-a-service (SaaS) license.

Key Findings

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



Mobile-specific treatments can also have a positive lift when applied to desktop.

- › **Reduced friction and improved mobile checkout CX drive compounding revenue lift of 9% to 15%, impacting both mobile and desktop.** Successful optimization experiments result in increased revenue per visit (RPV) and checkout funnel conversion rates, supporting top-line revenue growth. Over three years, the improved checkout experiences were worth more than \$264K of net income to the organization.
- › **Productivity lift of 94%, or time savings of 1,700 hours per year, for ideation, testing, and evaluation of traditional A/B tests.** By leveraging Community data, standardized experiments, and the partnership of a SI, the interviewed agencies reduced the costs of internal A/B testing. Over three years, the collaborative efforts of the Community were worth more than \$194K to the organization.
- › **Algorithms minimize traffic directed to failing tests, avoiding the indirect cost of lost revenues of \$295K per year.** Revenue dips stemming from poorly performing A/B tests are minimized with adaptive algorithms that dynamically allocate traffic away from underperforming experiments. Over three years, the reduction in risk was worth more than \$83K of net income to the organization.
- › **Replaced professional services and tool fees of \$18K each year.** After participating in the Mobile Optimization Initiative, interviewees replaced paid and free tools or consultants with the HiConversion license. Over three years, the discontinued solutions or consultants were worth more than \$44K to the organization.

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

- › **New understanding of optimization potential.** Access to a growing set of templated experiments and community-level insights revealed previously unknown revenue growth opportunities made possible with customer experience optimization.
- › **Wider, combined perspectives of many merchants.** One message shared amongst interviewees was the value of having previously unavailable cross-merchant experiment results. These results are able to accelerate the experience optimization initiative through the use of highly successful experiment treatments, allowing for benchmarking to be done against the experiences of others.



ROI
226%



Benefits PV
\$587K



NPV
\$407K



Payback
<3 months

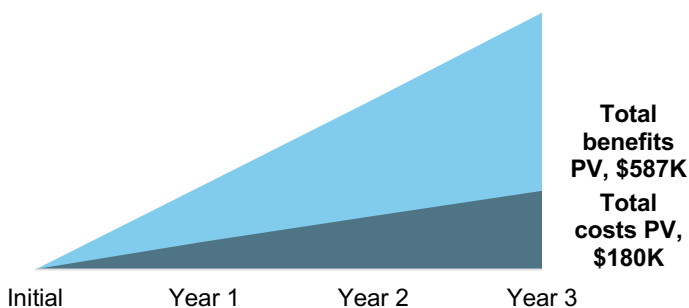
› **Better understanding of customers.** The data and insights gathered during experimentation revealed time-varying visitor preferences and unexpected behavior, sometimes disproving accepted beliefs about customer characteristics.

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

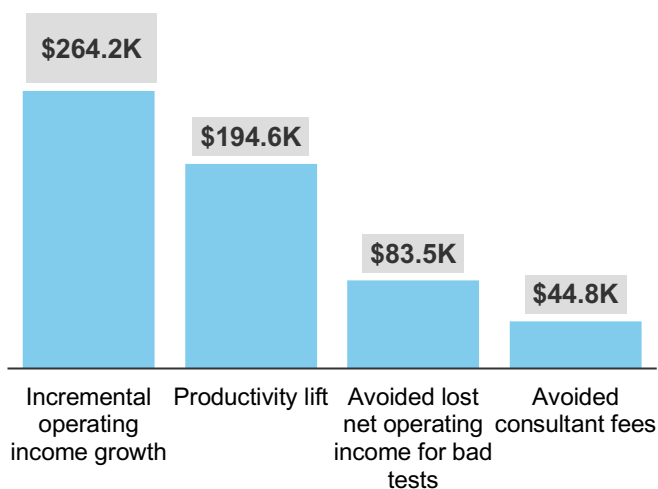
- › **SaaS licensing fees below half a percent of gross revenues after 60-day free pilot.** Merchants can choose to continue with the Mobile Optimization Initiative Community by engaging HiConversion, which charges an annual licensing fee based on a variety of criteria. The composite organization's pricing model is calculated on the annual gross revenue over the three-year period.
- › **Implementation of 10 hours and ongoing time dedicated to the management of optimizations.** From a merchant perspective, implementation takes 10 hours and includes introduction and demo, activation of an extension, data collection and health check, and QA of initial tests. After the initial implementation, progress meetings are held on an as-needed basis to evaluate results and determine road maps for additional tests.
- › **Managed services fee of \$22K per year for SI.** Interviewees engage with one of the participating SIs to aid in ongoing mobile optimization efforts. The SI replaces tools or professional services from prior A/B testing and optimization efforts.

Synopsis. Forrester's interviews with four existing customers and subsequent financial analysis found that an organization based on these interviewed organizations experienced benefits of \$587K over three years versus costs of \$180K, adding up to a net present value (NPV) of \$407K and an ROI of 226%.

Financial Summary



Benefits (Three-Year)



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

TEI Framework And Methodology

From the information provided in the interviews, Forrester has constructed a Total Economic Impact™ (TEI) framework for those organizations considering joining the Mobile Optimization Initiative Community.

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 Mobile Optimization Initiative Community can have on an organization:



DUE DILIGENCE

Interviewed Mobile Optimization Initiative stakeholders and Forrester analysts to gather data relative to the Community



CUSTOMER INTERVIEWS

Interviewed four organizations and their SIs participating in the Community 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 Mobile Optimization Initiative Community'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 the Mobile Optimization Initiative 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 Mobile Optimization Initiative Community.

Mobile Optimization Initiative 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.

Mobile Optimization Initiative provided the merchant and SI names for the interviews but did not participate in the interviews.

The Mobile Optimization Initiative Merchant Journey

BEFORE AND AFTER JOINING THE COMMUNITY

Interviewed Organizations

For this study, Forrester conducted four interviews with Mobile Optimization Initiative Community merchants. Interviewed merchants include the following:

INDUSTRY	INTERVIEWEE	PRIOR STATE	SIZE
Home goods retailer	Web manager	Internal A/B and limited multivariate testing for desktop. Two paid tools for desktop.	\$17.3M eCommerce revenue, 90 employees
Wellness and fitness retailer	Head of eCommerce and digital	Custom site requiring constant upkeep, unique checkout experience, various analytic and experimentation tools for desktop.	\$10.2M eCommerce revenue, 1,700 employees
Magazine publisher and merchandiser	CTO	Internal A/B testing, analytic tools for desktop.	\$1.4M eCommerce revenue, 60 employees
Automobile accessories merchandiser	Operations manager	Some SEO, external consultant. No A/B testing.	\$0.75M eCommerce revenue, 20 employees

Key Challenges

Interviewees shared several pain points or challenges they faced before joining the Community.

- › **No mobile-specific or checkout funnel-specific optimizations.** Prior efforts to increase conversions were not focused specifically on the mobile or checkout experience. The operations manager of an automobile accessories merchandiser told Forrester, “We did [A/B testing] on occasion, but honestly given our size and the experience, it was not something that came to our attention that there would be a way to improve mobile conversions.”
- › **Lack of meaningful CX insights.** Prior attempts to make CX improvements were based on gut instincts, inductive reasoning, and broad generalizations from simple comparisons. The CTO of a magazine publisher and merchandiser explained: “Without [the MOI] we would be working off unactionable data that we were logging. We wouldn’t know which data we should be logging. We would just be looking at if this year’s numbers were better than last year’s numbers, and did that have anything to do with something different that we did versus being proactive about it and figuring out which things we should be changing or which things we should be adjusting.”
- › **Scalability.** The interviewed merchants were limited in the number of tests that they could run at the same time. The conventional testing tools were forcing them to run one experiment in sequence after another, often only running three to four experiments each year. The CTO of a magazine publisher and merchandiser described his experimentation methods, saying: “We did do traditional A/B testing, but not in any way that was fully trackable. It was more along the lines of running a test at 100% for a week and then turning it off for 100% of

“As far as optimizing just the mobile segment, we had no formal programs in place.”

Operations manager, automobile accessories merchandiser



a week and kind of flipping it back and forth, not really being able to fully gauge whether it's just an influx of customers due to that week or due to the fact that we had made a change."

Why Mobile Optimization Initiative?

The interviewed merchants choose to participate in the Mobile Optimization Initiative for the following reasons:

- › **Partnership with optimization experts and brand consistent treatments.** The CTO of a magazine publisher and merchandiser searched for a solution that came with a close partner to help with experimentation. They also wanted the experiments to align with the branding of his company. This interviewee told Forrester: "We had been looking for some sort of solution, with a team that works with us, to give us not only suggestions for improving our mobile checkout process, but also one that works with us to ensure that they are staying true to our brands, as far as design goes. Not putting a big neon-green *buy now* sticker somewhere on our site was really important to us."
- › **Standardized, yet customizable.** Another merchant was pleased with the Community's ability to work with unique business models, saying: "It's been hard to find companies that understand our model, but [the Mobile Optimization Initiative] didn't really need to understand it. The way that they do their experiments and their testing can work with anybody. So, it enabled us to use tools that we previously didn't think were at our disposal."
- › **Oversight over experiments.** Merchants are able to choose, demo, and QA treatments and see how other members of the Community have been impacted by those treatments before they ever go live. The CTO of a magazine publisher and merchandiser told Forrester, "Every experiment that they were going to run, and everything that subsequently changed, they first gave us mockups and drafts of how those changes would look, as well as giving us live links to see how the actual treatment would play out on our site in real-time, once the changes were approved, so that we could actually see what our customer base would be seeing and approve it before anything went live."
- › **Free initial engagement for 60 days.** The first 60 days of participation in the Community are sponsored by PayPal, providing merchants with a free optimization campaign which includes: 3 to 5 A/B experiments running in parallel; HiConversion SaaS license; and professional services provided by a SI.

Key Results

The interviews revealed that merchants experienced the following key results from their participation in the Community:

- › **Mobile-specific treatments drive revenue growth across all devices.** Ongoing CX improvements and optimizations continue to enhance mobile and desktop experiences, creating a compounding revenue growth effect for both mobile and desktop revenues.

"In terms of satisfaction and belief in the product, we're a 100% there."

Operations manager, automotive accessories merchandiser



"It was a win-win for us. We were able to make our customers have a better experience. We were able to generate more revenue for the company as well as get valuable information about what does and doesn't work."

CTO, magazine publisher and merchandiser



- › **Productivity lift due to standardized treatments and best practices.** A broad range of best practices and preprogrammed treatments designed for enhanced mobile experiences are simplifying the mobile experience process. Merchants experience productivity lifts because they no longer need to ideate, conduct, or evaluate tests alone.
- › **Deep customer insights.** Interviewees stated that – beyond the results of testing - the MOI program also provided them insights into the preferences and behaviors of different audiences on the path-to-purchase.
- › **Parallel experimentation allows for large-scale testing.** The Community’s optimization platform is built to allow effective experimentation with multiple optimization treatments in parallel.
- › **Partnership with specialized SIs provide a total experience optimization solution.** Merchants replace legacy testing solutions and professional services with collaborative experience optimization platform and professional services provided by an expert SI.

“Since we have been part of the MOI, we are now focusing more on eCommerce than we did previously.”

CTO, magazine publisher and merchandiser



Composite Organization – *Andravid, Inc.*

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

Description of composite. Andravid, Inc., is an eCommerce brand with \$7.5 million in average annual eCommerce revenue and a historical average of 10% year-over-year (YOY) revenue growth. Prior to joining the MOI Community, Andravid did not perform any mobile-specific experience optimization, but it did make efforts to perform in-house A/B testing for improvements to desktop experiences. For analytics, Andravid relied on free and paid platforms.

Participation characteristics. Andravid’s objective in joining the Community is to close the mobile revenue gap, increase mobile commerce revenue, and create positive experiences for its customers. As a qualified merchant, they were offered an initial white-glove experience optimization campaign that was paid for by MOI Community sponsors and it included 3 to 5 different experiments running in parallel over 60 days. After the initial campaign, Andravid chooses to continue their optimization journey by engaging with SI partners and licensing the HiConversion solution.



Key assumptions

- \$7.5M revenue
- 35% of total revenue is from mobile
- 350,000 monthly visitors

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	Incremental operating income growth	\$84,166	\$105,985	\$133,218	\$323,369	\$264,194
Btr	Productivity lift	\$78,250	\$78,250	\$78,250	\$234,749	\$194,595
Ctr	Avoided lost net operating income for bad tests	\$33,576	\$33,576	\$33,576	\$100,728	\$83,498
Dtr	Avoided consultant fees	\$18,000	\$18,000	\$18,000	\$54,000	\$44,763
	Total benefits (risk-adjusted)	\$213,992	\$235,590	\$263,563	\$713,144	\$587,258

Incremental Operating Income Growth

As participants in the Community, the interviewed organizations run standardized CX optimization experiments to identify site changes that have a proven impact on improving both mobile and desktop customer experiences. The experiments target:

- › UX improvements to remove friction points and streamline online purchases.
- › Mobile-specific improvements to adapt to the pace and needs of mobile shoppers.
- › Overall improvements to the checkout funnel.

While the experiments are focused specifically on mobile optimization, the optimizations also have positive impacts to desktop conversions. The CTO of a magazine publisher and merchandiser described: “We saw a lot of the same average order value increases carry over from both mobile to desktop. So, what worked well for mobile also carried over. It’s kind of a win-win, a ‘what’s good for the goose is good for the gander’ kind of scenario.”

As a result of these experiments, interviewees experienced increased average order value, higher conversion rates, and greater volumes of traffic. The weighted average mobile revenue lift for the four merchants interviewed was over 56%.

In order to capture the value driven to merchants as a result of the Mobile Optimization Initiative experiments, Forrester assumes the following for the composite organization:

- › Andravidia has eCommerce annual revenue of \$7.5 million upon joining the Community. Regardless of optimization, revenue is assumed to increase 10% YOY.
- › Mobile revenue, as a percentage of total eCommerce revenue, is 35% in Year 1 and increases to 40% by Year 3.
- › Mobile revenue would increase YOY at a rate of 17%, regardless of involvement with the Community.

The table above shows the total of all benefits across the areas listed below, as well as present values (PVs) discounted at 10%. Over three years, the composite organization expects risk-adjusted total benefits to be a PV of more than \$587K.



The interviewed merchants experienced a weighted average mobile revenue lift of **56%** and a desktop revenue lift of **31%**.

- › Year 1 mobile and desktop revenue lifts are based on the weighted average of the entire Mobile Optimization Initiative over a six-month interval. The lifts experienced by the merchants interviewed were amplified by unique factors. In order to calculate a conservative revenue lift, Forrester has used the weighted averages of the Community.
- › The YOY compounding lift in mobile and desktop revenues is a result of the cumulative volume of tests and the increasing efficiency of mature tests. Forrester assumes a compounding rate of 20% for mobile revenue lift and 10% for desktop optimizations.
- › Andravida has an operating margin of 12%.

When considering the impact that the Mobile Optimization Initiative may have on an organization, consider:

- › For the compounding effects of treatments to be realized, ongoing experimentation will be required.
- › When measuring operating income, consider actual profit margin. Higher margin organizations will realize greater bottom-line impact.

To account for these risks, Forrester adjusted this benefit downward by 5%, yielding a three-year, risk-adjusted total PV of \$264,194.

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.

Incremental Operating Income Growth: Calculation Table

REF.	METRIC	CALC.	YEAR 1	YEAR 2	YEAR 3
A1	Total eCommerce revenue without optimizations	YOY growth of 10%	\$7,500,000	\$8,250,000	\$9,075,000
A2	Mobile revenue as a percentage of eCommerce revenue without optimization	Composite	35%		
A3	Mobile revenue without optimization	(A1*A2)* YOY growth of 17%	\$2,625,000	\$3,071,250	\$3,593,363
A4	Lift in mobile revenue driven by MOI	Year 1: interviews Years 2,3: assumption	10.52%	12.62%	15.14%
A5	Incremental mobile revenue driven by MOI	A3*A4 (rounded)	\$276,150	\$387,592	\$544,035
A6	Desktop revenue as a percentage of eCommerce revenue without optimization	Year 1: 1-A2 Years 2,3: (A1-A3)/A1 (rounded)	65%	63%	60%
A7	Desktop revenue without optimization	A1*A6	\$4,875,000	\$5,197,500	\$5,445,000
A8	Lift in desktop revenue driven by MOI	Year 1: interviews Years 2,3: assumption	9.48%	10.43%	11.47%
A9	Incremental desktop revenue driven by MOI	A7*A8 (rounded)	\$462,150	\$542,099	\$624,542
A10	Total incremental mobile and desktop revenue driven by MOI	A5+A9	738,300	929,691	1,168,577
A11	Operating profit margin	Industry	12%	12%	12%
At	Incremental operating income growth	A10*A11 (rounded)	\$88,596	\$111,563	\$140,229
	Risk adjustment	↓5%			
Atr	Incremental operating income growth (risk-adjusted)		\$84,166	\$105,985	\$133,218

Productivity Lift

Before partnering with the Mobile Optimization Initiative Community, the interviewed merchants were not performing any mobile-specific optimization efforts, but they had some internal resources dedicated to A/B testing and used free or paid analytics tools to aide in these improvement efforts. In the first 90 days of joining the Community, the merchants experienced productivity lifts as a result of:

- › Optimization road maps and effective prioritization of tests.
- › Design campaigns with cross-merchant shared insights.
- › Actionable analytics.
- › Reduced time to implement and QA campaigns with preprogrammed standardized optimization experiments.
- › Ability to perform more experiments with no additional internal labor.

The CTO of a magazine publisher and merchandiser described the productivity lift they experienced as a result of joining the Community, saying: “It’s like an extension of me, enabling me to focus on other projects while they do the background work of managing the experiments, testing them, implementing them, and then providing results and data sets for me. It takes a load off of me as I would have to implement a whole team if I wanted to run this, as opposed to using their services.”

For the composite organization, Forrester synthesized three categories of productivity lift described by the interviewed merchants:

- › **Ideation.** Andravida used internal resources to ideate experiments and optimization solutions for one hour per week prior to joining the Community. As a result of the best practices and preprogrammed standardized experiments, Andravida was able to use those hours on alternative tasks, fully eliminating the time dedicated to ideation.
- › **Performing A/B testing.** The internal labor tasked with performing the optimization testing was shared among three employees, who spent no more than 20% of their time on optimization tasks. As a result of joining the Community, these employees were able to fully reallocate their time to alternative value-added tasks.
- › **Evaluating results.** Prior to joining the Community, a senior-level eCommerce team member spent 30 minutes per day evaluating the ongoing results of A/B testing and communicating those results to stakeholders. As a result of joining the Community, the senior-level eCommerce employee was able to reduce the time spent on evaluating experiments by 80%. The time required to evaluate results is consolidated into one meeting on a weekly basis.

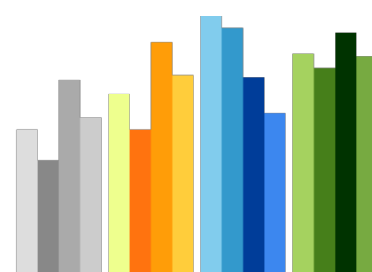
The impact of productivity lift will vary with:

- › The extent of internal time spent ideating experiments prior to joining the Community.
- › The number of employees dedicated to A/B testing or other optimization efforts prior to joining the Community.
- › The time needed to evaluate and report on optimization efforts and manual efforts required to collect the necessary data.
- › The fully loaded compensation of employees involved.

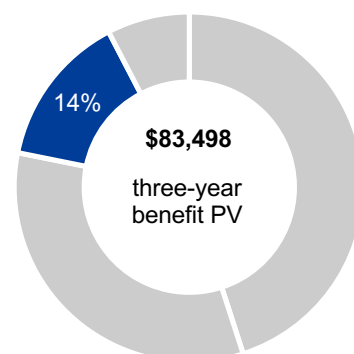
To account for these risks, Forrester adjusted this benefit downward by

“It’s like an extension of me, enabling me to focus on other projects while they do the background work [...] I would have to implement a whole team if I wanted to run this, as opposed to using their services.”

CTO, magazine publisher and merchandiser



Experiments orchestrated by the MOI Community can be run in parallel, creating ensembles of tests that work well together.



Productivity lift: 14% of total benefits

10%, yielding a three-year, risk-adjusted total PV of \$1.01 million.

Productivity Lift: Calculation Table

REF.	METRIC	CALC.	YEAR 1	YEAR 2	YEAR 3
B1	Hours spent ideating tests before MOI	1 hour per week	52	52	52
B2	Percentage of time saved using MOI	Interviews	100%	100%	100%
B3	Ideation hours saved with MOI	B1*B2	52	52	52
B4	Hours spent running tests on site before MOI	3 FTEs at 20%*2,080 hours	1,248	1,248	1,248
B5	Percentage of time saved using MOI		100%	100%	100%
B6	Testing hours saved with MOI	B4*B5	1,248	1,248	1,248
B7	Hours monitoring and evaluating testing results without MOI	30 mins per day	520	520	520
B8	Percentage of time saved using MOI		80%	80%	80%
B9	Evaluating hours saved with MOI	B7*B8	416	416	416
B10	Total hours saved with MOI	B3+B6*B9	1,716	1,716	1,716
B11	Blended hourly rate of FTEs	100,000/2,080 hours (rounded)	\$48	\$48	\$48
Bt	Productivity lift	B10*B11	\$82,368	\$82,368	\$82,368
	Risk adjustment	↓5%			
Btr	Productivity lift (risk-adjusted)		\$78,250	\$78,250	\$78,250

Avoided Lost Net Operating Income For Bad Tests

The types of testing and efforts to optimize eCommerce sites performed by the interviewed merchants required manual efforts and were generally unsophisticated in nature and reportability.

One of the hidden costs of A/B testing is the unrealized revenue that is lost as a result of poorly run experiments. An A/B test splits traffic between the experiment-driven experience and the as-is site. When running treatments, there is a risk that the hypothesized experiment will be a failure, resulting in conversion rate drop-off for the traffic that is directed to that experience.

The Mobile Optimization Initiative decreases the negative impacts that merchants may experience with internal testing by:

- › **Standardized experiments.** Merchants participating in the Mobile Optimization Initiative Community have access to an ever-growing number of preprogrammed experiments that have been honed through collaborative testing, resulting in a significant decrease in bad hypotheses being tested on live sites.

“Now we’re testing things. We’re finding what’s working and what’s not. When we make a change, it has a positive impact on the site as opposed to what we were doing before. We were often making two steps forward and one step back. When we’re using [the Community’s] testing tools, then we can make sure we are always making steps forward.”

SI for automobile accessories merchandiser



- › **Advanced data analytics and smart optimization algorithms.** The experiments are continuously monitored by adaptive algorithms that allocate traffic away from poorly performing experiments in real time, reducing the risk of conversion drop-off for the traffic directed to those experiments.

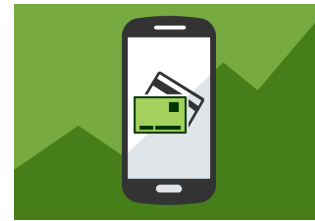
In order to capture the reduced risk of bad testing Andravida gains from testing through the Community, Forrester assumes the following:

- › 350,000 monthly visitors to site.
- › Andravida runs optimization experiments nine months of the year, avoiding peak holiday season.
- › 50% of traffic is diverted to experiments.
- › Conversion rate for the as-is site is 1.69% and drops by 20% for the visitors diverted to a poorly performing experiment.
- › Andravida has an average order value of \$110.

When considering the impact from avoided lost revenues, consider:

- › The volume of traffic sent to tests may vary from organization to organization depending on organization's desire to get test results as quickly as possible and the volume required to reach statistical significance.
- › Organizations that run treatment through the holiday season will experience additional benefits.
- › When measuring operating income, consider actual profit margin. Higher margin organizations will realize greater bottom-line impact.

To account for these risks, Forrester adjusted this benefit downward by 5%, yielding a three-year, risk-adjusted total PV of \$83,498.



With the MOI Community, tests are run continuously and allocate traffic to maximize effects.

Avoided Lost Net Operating Income For Bad Tests: Calculation Table

REF.	METRIC	CALC.	YEAR 1	YEAR 2	YEAR 3
C1	Monthly visitors to site	Composite	350,000	350,000	350,000
C2	Number of months tests are run (seasonality)		9	9	9
C3	Traffic directed to tests		50%	50%	50%
C4	Percentage of volume with losing test		50%	50%	50%
C5	Visitors impacted by bad testing	$C1 * C2 * C3 * C4$	787,500	787,500	787,500
C6	Conversion rate without optimization		1.69%	1.69%	1.69%
C7	Conversion rate of losing tests	20% decrease ($1.69% * .8$)	1.35%	1.35%	1.35%
C8	Average order value	Composite	\$110	\$110	\$110
C9	Avoided lost revenue for bad tests	$(C5 * C6 * C8) - (C5 * C7 * C8)$	\$294,525	\$294,525	\$294,525
C10	Operating profit margin	Industry	12%	12%	12%
Ct	Avoided lost net operating income for bad tests	$C9 * C10$	\$35,343	\$35,343	\$35,343
	Risk adjustment	↓5%			
Ctr	Avoided lost net operating income for bad tests (risk-adjusted)		\$33,576	\$33,576	\$33,576

Avoided Consultant Fees

Interviews revealed a variety of free and paid tools (including consultants) that were used to optimize eCommerce experiences. As a result of joining the Mobile Optimization initiative, the merchants were able to discontinue the use of the paid tools or consultants, as applicable.

In order to capture the benefit of avoided consultant fees and/or paid tools, Forrester assumes Andravida replaces its legacy consulting with HiConversion. For more information on HiConversion, see the SaaS License Fee cost section of this report.

When using this framework to estimate ROI, consider if there is a legacy tool that will be replaced or retired as a result of joining the Mobile Optimization Initiative and the annual costs associated with it.

To account for these risks, Forrester adjusted this benefit downward by 10%, yielding a three-year, risk-adjusted total PV of \$100,728.

Avoided Consultant Fees: Calculation Table

REF.	METRIC	CALC.	YEAR 1	YEAR 2	YEAR 3
D1	Annual consultant fees	Interview	\$20,000	\$20,000	\$20,000
Dt	Avoided consultant fees	D1	\$20,000	\$20,000	\$20,000
	Risk adjustment	↓10%			
Dtr	Avoided consultant fees (risk-adjusted)		\$18,000	\$18,000	\$18,000

Unquantified Benefits

In addition to the benefits quantified above, the interviewed merchants cited other positive effects of participating in the Mobile Optimization Initiative. Two of these positive externalities are:

- › **Greater awareness of optimization potential.** Use of the shared Community results were used by interviewees as a knowledge tool to educate their organizations on the CX optimization potential. operations manager of an automobile accessories merchandiser stated, “It has expanded our internal education of what’s available in the world.”
- › **Wider, combined perspectives of many merchants.** The web manager for a home goods retailer captured the benefit of being part of a community collaboration, saying: “There’s value in not being a lone person on an isolated island. When you start integrating and talking and seeing what other islands are doing, you can get a better picture of what the ocean looks like. This [Community] offers a unique opportunity for us to connect with other merchants who are dealing with the issues of mobile optimization and improving conversions on all browsers. Obviously, that’s something we normally wouldn’t have access to.”

“There’s value in not being a lone person on an isolated island. When you start integrating and talking and seeing what other islands are doing, you can get a better picture of what the ocean looks like. This [Community] offers a unique opportunity for us to connect with other merchants [...] that’s something we normally wouldn’t have access to.”

Web manager, home goods retailer



- › **Better understanding of customers.** The data and insights gathered during experimentation revealed new information, that sometimes disproved accepted beliefs about customer characteristics. The CTO of a magazine publisher and merchandiser explained: “We have started thinking, opening our minds to a lot of these changes, especially some of the psychological changes that we didn’t necessarily believe our demographic was susceptible to. We prove that even though we’re not targeting a broader demographic, some of the psychological or eCommerce traits that do apply to those broader demographics also apply to our smaller one.”

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 participate in the Mobile Optimization Initiative Community and later realize additional uses and business opportunities, including:

- › **Growing number of tests with broader applications.** As the Community matures and amasses data, they continue to develop new experiments that expand beyond the checkout experience.
- › **Expansion into foreign markets.** The Community is expanding their reach beyond US merchants and developing a presence in foreign markets. The data provided from this wider Community will provide insights on how behaviors and trends differ between regions.

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

Analysis Of Costs

QUANTIFIED COST DATA AS APPLIED TO THE COMPOSITE

Total Costs							
REF.	COST	INITIAL	YEAR 1	YEAR 2	YEAR 3	TOTAL	PRESENT VALUE
Etr	SaaS license fee	\$0	\$41,521	\$46,256	\$51,651	\$139,428	\$114,780
Ftr	Implementation and ongoing labor	\$504	\$5,242	\$3,931	\$2,621	\$12,298	\$10,487
Gtr	Ongoing managed services fees	\$0	\$22,000	\$22,000	\$22,000	\$66,000	\$54,711
	Total costs (risk-adjusted)	\$504	\$68,763	\$72,187	\$76,271	\$217,725	\$179,978

SaaS License Fee

Interested parties can participate in the Community for 60 days at no price. After the initial period is over, participants can choose to further their engagement with the Community and sign on with HiConversion for ongoing testing.

For this study, the composite organization decides that the benefits experienced during the free trial are significant enough to warrant the ongoing SI and HiConversion relationship and licensing fees. The CTO of a magazine publisher and merchandiser remarked: “We are actively engaged with them now. We ran some campaigns and experiments with them, and then after the part that I was paid for, by Magento, PayPal, and HiConversion, we decided to sign on with them in order to continue using their services and continue further optimization.”

- › The licensing fee is calculated based on the annual number of website visitors of Andravida.
- › The website visitor licensing rate is designed to approximate 0.48% of gross revenues.

Determining the cost for this study is complex due to the many variables that drive pricing, including the size of the organization (measured in annual eCommerce revenue), the scope of the CX optimization efforts, and the organization’s respective need for customization. Alternative pricing methods exist for larger merchants and smaller merchants. Readers should recognize that the pricing in this study is representative of the composite organization, Andravida.

To account for these risks, Forrester adjusted this cost upward by 5%, yielding a three-year, risk-adjusted total PV of \$114,780.

The table above shows the total of all costs across the areas listed below, as well as present values (PVs) discounted at 10%. Over three years, the composite organization expects risk-adjusted total costs to be a PV of \$180K.

“We are actively engaged with them now. We ran some campaigns and experiments with them, and then after the part that I was paid for, by Magento, PayPal, and HiConversion, we decided to sign on with them in order to continue using their services and continue further optimization.”

CTO, magazine publisher and merchandiser



SaaS License Fee: Calculation Table

REF.	METRIC	CALC.	INITIAL	YEAR 1	YEAR 2	YEAR 3
E1	Total gross revenue	A1+A10	\$0	\$8,238,300	\$9,177,755	\$10,248,139
E2	Licensing fee basis		0.00%	0.48%	0.48%	0.48%
Et	SaaS license fee	E1*E2	\$0	\$39,544	\$44,053	\$49,191
	Risk adjustment	↑5%				
Etr	SaaS license fee (risk-adjusted)		\$0	\$41,521	\$46,256	\$51,651

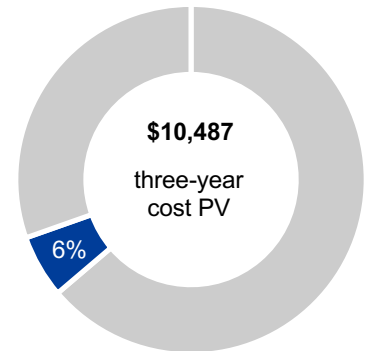
Implementation And Ongoing Labor

During this study, Forrester interviewed both the merchants as well as their SIs. The description of implementation below captures the SI's involvement during the 60-day trial period.

Implementation. The steps involved with joining the Community are:

- › **Introduction to the Community.** In the words of the SI for an automobile accessories merchandiser: “The first thing we do is work with the client to explain to them at a high level what the Mobile Optimization Initiative is. And it’s always a challenge because there’s several facets. There’s a lot of people involved and technically, it can be a little bit challenging.”
- › **Activate extension on the eCommerce platform.** The SI continues, “For the second step, if the client wants to participate, is then we will tag their site with an extension in Magento and start gathering analytics data.”
- › **Experience health check.** Each merchant then receives an initial rich data analysis of their own customer experience designed to identify kinks in the customers’ buying journey. The SI for an automobile accessories merchandiser said: “And with that analytics data, then we can look at the sales funnel along with a whole lot of other data. We see how their site is being used and where there might be problems in the sales funnel.”
- › **Implement treatments and QA.** Using insights provided during the health check, treatments designed to address the identified weak points will be run during the trial. With the approval of the client after QA, the SI activates the selected treatments. Before choosing which standardized experiment to apply on their own sites, participating merchants can learn about the success of such experiments across participating merchants.
- › **Run tests.** Tests typically run for 5 to 8 weeks and then merchants can choose whether to implement those changes on an ongoing basis. Interviewees described the process as painless, taking approximately two weeks.

Ongoing. From an ongoing perspective, merchants are in contact throughout the month with their SI. The CTO of a magazine publisher and merchandiser explained, “We’re doing biweekly check-ins to make sure that our expected ROI from all these campaigns is going to be on point, as well as to ensure current experiments are progressing the way we want them to.” There was a range of involvement cited by the



Implementation and ongoing labor: 6% of total costs



10 hours of implementation time for the merchant

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.

interviewed merchants, one of which described the time commitment to be as little as one hour per month.

- › Ongoing involvement cited by merchants varied widely, the composite organization assumes a higher level of ongoing engagement with the SI and evaluation of results.

To account for these risks, Forrester adjusted this cost upward by 5%, yielding a three-year, risk-adjusted total PV of \$10,487.

Implementation And Ongoing Labor: Calculation Table

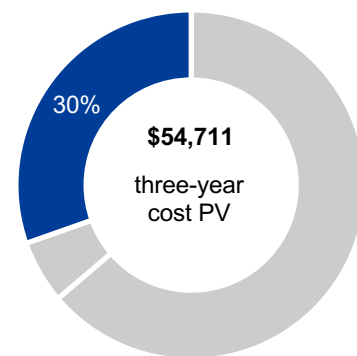
REF.	METRIC	CALC.	INITIAL	YEAR 1	YEAR 2	YEAR 3
F1	Hours spent on introduction and product demo		2			
F2	Hours activating integration extension		2			
F3	Progress meetings during trial	Two meetings over three months	4			
F4	QA of initial tests		2			
F5	Total implementation hours	F1+F2+F3+F4	10			
F6	Blended hourly rate of FTEs	100,000/2,080 hours (rounded)	\$48			
F7	Implementation labor	F5*F6	\$480			
F8	Ongoing hours management of optimization after first 90 days		0	104	78	52
F9	Blended hourly rate of FTEs	\$100,000/2,080 hours (rounded)	\$48	\$48	\$48	\$48
F10	Ongoing management labor	F8*F9	\$0	\$4,992	\$3,744	\$2,496
Ft	Implementation and ongoing labor	F7+F10	\$480	\$4,992	\$3,744	\$2,496
	Risk adjustment	↑5%				
Ftr	Implementation and ongoing labor (risk-adjusted)		\$504	\$5,242	\$3,931	\$2,621

Ongoing Managed Services Fees

The Mobile Optimization Initiative collaboration includes eCommerce SIs and agencies who implement the optimization experiments on merchants' sites. During the 60-day initial period, SI fees are sponsored by the Community, however, after the 60 days have lapsed, merchants will pay for the managed service.

- › Andravida pays their SI \$20K per year for support.
- › It is possible that organizations already have a managed service provider and are incurring the costs before participation in the Community.
- › The retainer fees for agencies may vary by company.

To account for these risks, Forrester adjusted this cost upward by 10%, yielding a three-year, risk-adjusted total PV of \$54,711.



Ongoing managed services fees: **30%** of total costs

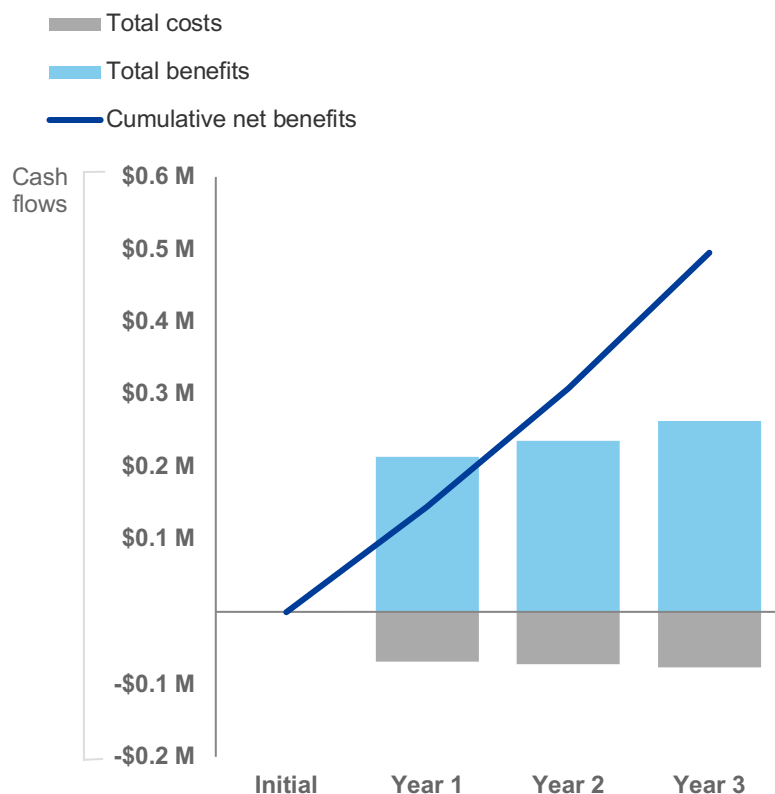
Ongoing Managed Services Fees: Calculation Table

REF.	METRIC	CALC.	INITIAL	YEAR 1	YEAR 2	YEAR 3
G1	System integrator fees		0	\$20,000	\$20,000	\$20,000
Gt	Ongoing managed services fees	G1	\$0	\$20,000	\$20,000	\$20,000
	Risk adjustment	↑10%				
Gtr	Ongoing managed services fees (risk-adjusted)		\$0	\$22,000	\$22,000	\$22,000

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 Table (Risk-Adjusted)

	INITIAL	YEAR 1	YEAR 2	YEAR 3	TOTAL	PRESENT VALUE
Total costs	(\$504)	(\$68,763)	(\$72,187)	(\$76,271)	(\$217,725)	(\$179,978)
Total benefits	\$0	\$213,992	\$235,590	\$263,563	\$713,144	\$587,258
Net benefits	(\$504)	\$145,229	\$163,402	\$187,292	\$495,419	\$407,280
ROI						226%
Payback period						<3 months

SI Experiences In The Mobile Optimization Initiative

During the merchant interviews, the systems integrators (SIs) for each merchant also participated in the interviews. This section highlights the experiences noted by the SIs. The benefits and costs noted below are not included in the quantified ROI, NPV, or payback period of the study.

Unquantified Benefits For SIs

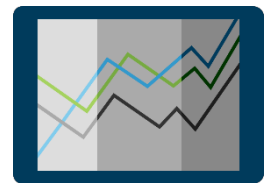
- › **Access to eCommerce-specific data analytics.** The SI for an automobile accessories merchandiser cited the mobile-specific data as one benefit of participating in the Community, saying: “We all have access to tools like [business analytics platform]. There are a couple of problems though, one is that it’s not focused on eCommerce. HiConversion has an engagement map. It’s a heat map that shows elements on the site and how they impact revenue for the visitor. That kind of data is just not available on something like [business analytics platform].”
- › **Better understanding of funnel-specific challenges.** System integrators felt they were able to understand their client’s challenges and provide data-driven advice to their clients supported by the HiConversion analytics. The SI for an automobile accessories merchandiser told Forrester: “The analytics that we’re getting from the HiConversion data really helps us have a much better understanding of what’s happening on our clients’ sites. Where there are problems in the sales funnel, how people are arriving at the sites, how sources of traffic are converting, what kind of devices they’re using, and so forth. So, aside even from the testing, there’s a lot of great data that we can use to help our clients.”
- › **Budget-friendly solution for clients.** The price of the HiConversion license fit into client’s budgets, helping drive greater engagement. The SI for an automobile accessories merchandiser said, “To arrive at the kind of reporting that the HiConversion data provides, you need to do a lot of work and we’re dealing with small and medium-sized clients. And when we start working with these kinds of budgets, it’s just not practical to charge people thousands of dollars to do all sorts of analysis on [business analytics platform] data. They’re just not going to put that in their budget.”
- › **Opportunities to provide thought leadership.** As part of a community trying to solve a common problem, the SIs found that they have new opportunities to create blogs, speak at industry conferences, and be general thought leaders in the area of mobile conversion. The SI for an automobile accessories merchandiser described: “We’ve been doing webinars with our clients to educate them about hot trends, some of the data we’ve been getting, some of the successful tests, some of the learnings that we’ve had through the Mobile Optimization Initiative. So, there are lots of opportunities like that and a bunch more planned for the coming year here.”



- › **More content to present to clients.** The community-sourced insights give SIs data to discuss with clients, increasing the value they can provide. The SI for the magazine publisher and merchandiser said: “I would say we’re having more frequent conversations [with our clients], there’s just more to talk about now. We had stuff to talk about before, but now there’s an additional layer of material that we can share and update.”
- › **Great technology partners.** SIs spoke glowingly about the opportunity to work with technology partners Magento, PayPal, and HiConversion. The SI for the automobile accessories merchandiser said: “We really appreciate what these technology partners have done for us. They’ve been really helpful and great to work with., because they’ve got a lot more marketing resources and technical resources than we are used to. So, they’ve been really helpful and excellent to work with.”

Unquantified Costs for SIs

- › **Four participating merchants.** In order to participate in the Community, a SI must contribute the involvement of four existing eCommerce clients who agree to join Community.
- › **Weekly collaboration calls.** As one of the goals of the Community is to share experiences and data, SIs are expected to participate in weekly calls that last approximately an hour.
- › **Maintenance.** The SI for the home goods retailer described, “There’s always some maintenance that goes with keeping the test running properly. About an average of an hour a week.”



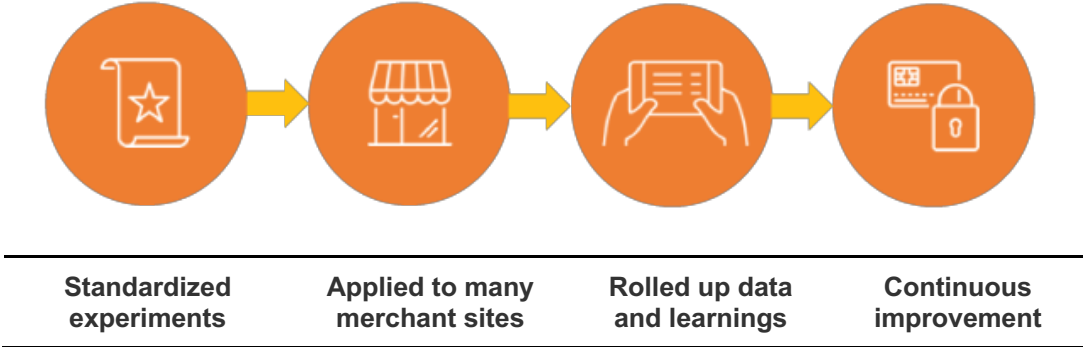
Mobile Optimization Initiative Community: Overview

The following information is provided by the Mobile Optimization Initiative. Forrester has not validated any claims and does not endorse the Mobile Optimization Initiative or its offerings.

Consumers are spending more of their time on mobile than on any other device — yet that additional time is not resulting in more revenue for merchants. mCommerce accounts for 62% of website visitors in the US, but only 23% of total dollars spent.¹ This Mobile eCommerce Optimization Initiative aims to close the mobile gap through Collaborative Customer Experience Optimization (C-CXO) provided by HiConversion.

The Mobile eCommerce Optimization Initiative was established through the collaboration of a Community of eCommerce SIs, with the unified goal to improve mobile customer experiences. Participating merchants from around the globe, with diverse product offerings, conduct standardized C-CXO experiments on their sites and gain access to useful insights from the Community.

Continuous Innovation Through Collaborative Customer Experience Optimization (C-CXO)



Standardizing experiments and sharing data across the Community helps merchants optimize their sites faster than they could in isolation — closing the gap between desktop and mobile conversions and ultimately driving more revenue. The results speak for themselves — to date, members of the Mobile eCommerce Optimization Initiative have seen an average increase in revenue per visitor of 8.17%.²

PayPal provides funding for the Mobile eCommerce Optimization Initiative and HiConversion provides C-CXO expertise and licensing for the optimization software. All tests are conducted independently and are shared with the Community, creating a library of optimization experiments to help improve mobile conversions globally.

Learn more at www.mobileoptimized.org.

HiConversion: Overview

The following information is provided by the Mobile Optimization Initiative. Forrester has not validated any claims and does not endorse the Mobile Optimization Initiative or its offerings.

HiConversion is the technology platform behind Mobile Optimization Initiative. It provides Collaborative Customer Experience Optimization (C-CXO) and anonymized insights sharing across participating eCommerce sites.

HiConversion is easy to activate using extensions available for most eCommerce platforms, and easy to use with pre-programmed experiment templates. This gives merchants the flexibility to move quickly, focus on innovation, and rapidly close the mobile revenue gap.

HiConversion's technology innovation is inspired by the realization that the customer experience optimization problem is so big and so complex that no single merchant, system integrator, or technology company can solve it on its own. Unlike conventional, slow, small scale, and one-off testing and personalization of eCommerce, HiConversion's C-CXO platform provides rapid, large scale, and uniform customer experience optimization with standardized pre-programmed experiments and shared cross-merchant insights.

HiConversion Collaborative Customer Experience Optimization (C-CXO) Platform

HiConversion provides a family of fully integrated applications, analytics, and algorithmic capabilities to enable large-scale adaptive optimization of customer experience and actionable insights.



Adaptive Algorithms

AI powered to enable running many experiments in parallel while adapting to visitor preferences in real time.



Customer Experience Analytics

Unified rich web analytics and optimization data sets to provide deep customer knowledge and enable data driven decision making.



Integrated CXO Applications

Testing and personalization applications built to provide consistent customer experience across the entire buyer journey.



Standardized Experiments

Pre-programmed best practices as uniform experiments to provide fast implementations and cross-merchant data aggregation.



Shared Insights

Anonymized cross-merchant insights featuring best practices with high rates of success for rapid improvement of the mobile experience.

HiConversion is used by hundreds of leading eCommerce brands. Based in Boca Raton, Florida, HiConversion is serving its global customers in collaboration with rapidly growing network or regional system integrators and digital agencies. Learn more at

Learn more at www.hiconversion.com.

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 Source: “Mobile e-commerce spending in the United States from 2nd quarter 2010 to 4th quarter 2017 (in billion U.S. dollars)” statista, 2017 (<https://www.statista.com/statistics/268439/quarterly-us-mobile-e-commerce-spending/>).

² Source: “Average Performance Results” Monthly Results, March 15, 2019 (<https://www.mobileoptimized.org/average-performance-results/>).