The Total Economic Impact™ Of Amplience Dynamic Content

Boost Worker Output And Reduce Customer Support Costs With Dynamic Content

FORRESTER®

Table Of Contents

Project Director:
Jan ten Sythoff

ABOUT FORRESTER CONSULTING

Forrester Consulting provides independent and objective research-based consulting to help leaders succeed in their organizations. Ranging in scope from a short strategy session to custom projects, Forrester's Consulting services connect you directly with research analysts who apply expert insight to your specific business challenges. For more information, visit forrester.com/consulting.

FORRESTER®

Benefits And Costs

Output per worker in the online brand team tripled:
$1.5M

Customer support issues reduced by 70%:
$675K

"I think the team is happier with their day-to-day. You have to really count on your dev team, and you can't expect them to be doing remedial repetitive HTML coding, that's not going to make them happy. And if the business users aren't mindlessly updating 200 CMS entries, they're going to feel the empowerment of making changes."

Executive Summary

Amplience provides a cloud-based platform that helps its customers manage, produce, and deliver eCommerce site content. Amplience commissioned Forrester Consulting to conduct a Total Economic Impact™ (TEI) study and examine the potential ROI enterprises may realize by deploying the Dynamic Content solution. The purpose of this study is to provide readers with a framework to evaluate the potential financial impact of the Dynamic Content platform on their organizations.

To better understand the benefits, costs, and risks associated with this investment, Forrester interviewed one customer with several years of experience using Dynamic Content. The platform makes the development and management of online content much easier, not only freeing up a lot of time, but also reducing errors and inconsistencies.

Prior to using Dynamic Content, the interviewed customer was using an internally built content management system. However, it was no longer fit for purpose because it was not able to scale and it lacked key functionality.

Key Findings

Quantified benefits. The interviewed organization experienced the following risk-adjusted present value (PV) quantified benefits:

› **The output of the online brand management team tripled.** Following the implementation of the platform, bottlenecks and inefficient tasks were eliminated and team members were able to focus on higher value tasks. The same team is now able to support three separate sites instead of just one. While the actual benefit has been to deliver new revenue streams, these numbers were sensitive, and so Forrester instead quantified the equivalent increase in worker output. On average, each of the 14 members of the team tripled their output, which was equivalent to an additional 150 days per year. After applying a 75% capture rate and a 20% risk adjustment, the three-year, present value of this benefit was just under $1.5M.

› **Reduced errors and inconsistencies brought customer support issues down by 70%.** Manually managing online content meant having many repetitive daily tasks resulting in human error. Furthermore, because the different online channels were pulling content from different sources, there were inconsistencies across the site. The customer experience, therefore, was poor and there were a lot of inquiries and complaints. With reduced errors and inconsistencies, customer support instances reduced significantly, resulting in a three-year, risk-adjusted PV of $675K.

Unquantified benefits. An estimate of the potential for incremental profit margin has been included here. There were also employee experience benefits which have not been quantified.

FORRESTER®

ROI
120%

Benefits PV
$2.2 million
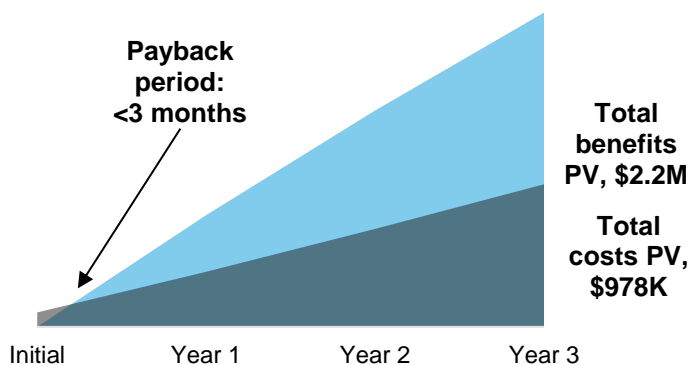
NPV
$1.2 million

Payback
<3 months

› **Potential for incremental profit margin from supporting two additional online sites.** As an alternative to estimating the increased output per worker benefit category, an estimation of the potential for profit margin upside of supporting two additional online sites has been included, but only as a guide. Over the three-year period (and adjusting for risk), this potential is estimated at $4M. This was not included in the analysis of the benefit primarily because a number of unsubstantiated assumptions were required and, moreover, the revenue figures were sensitive.

› **Improved employee experience.** With the online brand team able to focus on their areas of expertise, and no longer having to spend a lot of their time on manual entry and quality assurance, their experience improved significantly. The team is less stressed and better focused, which will contribute to better staff retention and increased discretionary effort.

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

› **The software licensing costs came to $862K.** Annual platform costs are based on website traffic. The interviewed organization experiences site traffic of around 10M visitors.

› **Implementation costs amounted to $98,400.** There was a professional services element to the implementation, as well as some internal resource efforts.

› **Ongoing platform administration costs were just over $17K.** This cost was based on an average effort of 4 hours per week.

Forrester's interview with an existing customer and subsequent financial analysis found that the interviewed organization experienced benefits of $2.2M over three years versus costs of $980K, adding up to a net present value (NPV) of $1.2M and a ROI of 120%.

Financial Summary
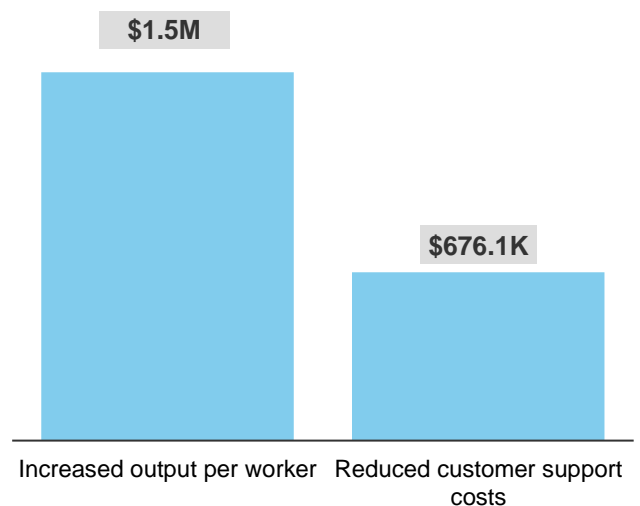
Payback period: <3 months

Total benefits PV, $2.2M

Total costs PV, $978K

Initial   Year 1   Year 2   Year 3

Benefits (Three-Year)

$1.5M

$676.1K

Increased output per worker   Reduced customer support costs

FORRESTER®

TEI Framework And Methodology

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

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 Amplience Dynamic Content can have on an organization:

DUE DILIGENCE
Interviewed Amplience stakeholders and Forrester analysts to gather data relative to Dynamic Content.

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

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

CASE STUDY
Employed four fundamental elements of TEI in modeling Amplience Dynamic Content'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.

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

DISCLOSURES

Readers should be aware of the following:

This study is commissioned by Amplience 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 Amplience Dynamic Content.

Amplience 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.

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

FORRESTER®

The Dynamic Content Customer Journey

BEFORE AND AFTER THE DYNAMIC CONTENT INVESTMENT

Interviewed Organization

For this study, Forrester interviewed an Amplience Dynamic Content customer:

› A US retail chain with 160 stores, a single initial site, and approximately 8,000 employees. Revenue numbers are not publicly available, but they are estimated at ~$2B. Following the implementation of the platform, two additional sites have been launched.

› Around 50% of sales are online, which, now, as described above, includes three sites and a mobile app. Monthly website traffic is around 10M visitors.

› The eCommerce brand team comprises of 14 members, including designers, business managers, art directors, and developers.

› Prior to investing in Amplience, the team was using an internally built content management system (CMS).

Key Challenges

The eCommerce team faced significant challenges with the legacy CMS:

› **Content development was all coded from the bottom up, creating significant bottlenecks.** All the designers and business managers were reliant on a single developer for creating all the site content.

› **Content management had to be done manually.** Having to change every instance of a single piece of content across the site was extremely inefficient, time-consuming, and prone to human error.

› **The homegrown CMS tool was no longer fit for purpose.** The in-house team was not focused on improving the old tool and a lot of key functionality was missing. Notably, there was no version control and separate entries were required for the same content on the different sites and mobile apps, creating inconsistencies and errors.

› **The team was not able to focus on higher value tasks.** Developers had no time to focus on opportunities to improve the customer experience, and business users similarly should have been spending more time on analytics and optimizing content. As a result, employees were not using their skills and capabilities and many were often stressed, which resulted in low morale and a risk of employee turnover. Furthermore, it was very difficult to control campaigns.

> "Before we moved to Amplience, we were coding all content from scratch. Development was a total roadblock. All the designers were dependent on development to deploy. There were lots of bottlenecks and inefficiencies."
>
> *Director, eCommerce marketing & merchandising, retail*

> "We were struggling to get the day-to-day content and we didn't have time for the analytics, optimizations, or personalization that we wanted to be doing. In addition, the developer was managing the content, although they're the furthest from the business. I wanted the business user to be in control, that should be their focus, making changes to drive sales."
>
> *Director, eCommerce marketing & merchandising, retail*

FORRESTER®

Key Results

The interview revealed that key results from the Dynamic Content investment include:

› **Significant increase in efficiency.** Following the implementation of Dynamic Content, the organization was able to support three different sites, instead of just one, with each having the same size per team.

› **Improved customer experience.** Because the team's time was liberated, eCommerce team members were able to focus on campaigns, personalization, and content optimization. As a result, the customer experience has improved significantly, leading to a higher conversion rate.

› **Reduced errors and site inconsistencies.** Because content no longer was being updated manually, and all sites draw from the same source, the number of errors was significantly reduced.

› **Business users were able to create and change site content.** Since business users were no longer reliant on the development team, they were able to create much more content and reduce the number of errors. Furthermore, a lot of their time was freed from having to update manual entries.

"We're significantly more efficient and focused on optimizing through a data driven approach of testing and personalization. We are now supporting three separate sites with the same sized team as opposed to just one previously. We can do it without adding to the bottom line. Previously we would have added dedicated resources for each of the new sites."

Director, eCommerce marketing & merchandising, retail

FORRESTER®

Analysis Of Benefits

QUANTIFIED BENEFIT DATA

Total Benefits

REF.	BENEFIT	YEAR 1	YEAR 2	YEAR 3	TOTAL	PRESENT VALUE
Atr	Increased output per worker	$595,000	$595,000	$595,000	$1,785,000	$1,479,677
Btr	Reduced customer support costs	$247,917	$272,708	$299,979	$820,604	$676,136
	Total benefits (risk-adjusted)	$842,917	$867,708	$894,979	$2,605,604	$2,155,813

Increased Output Per Worker

As described in the results above, the biggest benefits were the increased efficiency, the elimination of bottlenecks, and the ability of team members to focus on their tasks and capabilities.

› Team members were freed up from updating manual entries, enabling them to focus on higher value tasks such as site personalization, more focused campaigns, and content optimization.

› Since implementing Amplience Dynamic Content, the organization has launched two additional sites, which would have previously required additional dedicated resources. In other words, the same team is now able to be three times more productive.

While the benefit for the organization was the ability to launch two new sites and improve the customer experience leading to higher revenues, they were not able to share the revenue details. Instead, therefore, we have quantified the increased output per worker.

› On average, each member of the eCommerce brand team was able to increase their output threefold; in other words, instead of spending 225 days per year on one site, two-thirds of this time (or 150 days) has been made available for other tasks.

› Forrester has assumed that three-quarters of this output increase has been put back into productive use. Normally, the productivity capture rate is set at 50%, but because we were not able to calculate the revenue upside, this increased to 75%.

› It is assumed that each member of the team, being a knowledge worker, has a fully loaded salary of $100,000, which equates to a daily rate of $444.

A risk adjustment of 15% has been applied. Other organizations may not experience the same level of benefit because they have a different team structure in place. This yielded a three-year, risk-adjusted total PV of $1,479,677.

The table above shows the total of all benefits across the areas listed below, as well as present values (PVs) discounted at 10%. Over three years, the interviewed organization expects risk-adjusted total benefits to be a PV of nearly $2.2 million.

The organization has been able to launch two additional sites without increasing the size of the team.

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.

FORRESTER®

| Increased Output Per Worker: Calculation Table					
REF.	METRIC	CALC.	YEAR 1	YEAR 2	YEAR 3
A1	Number of workers		14	14	14
A2	Daily rate per person	$100,000/45/5	$444	$444	$444
A3	Number of days saved/ worker		150	150	150
A4	Percent captured		75%	75%	75%
At	Increased output per worker	A1*A2*A3*A4	$700,000	$700,000	$700,000
	Risk adjustment	↓15%			
Atr	Increased output per worker (risk-adjusted)		$595,000	$595,000	$595,000

Reduced Customer Support Costs

There were two main areas where errors and inconsistencies were occurring.

› Content management was largely manual. So, when a piece of content was updated, it would have to be done manually for each of the different instances that content appears across the different sites, which is typically around 30 times.

› The different sites and apps were drawing content from separate sources. As a result, there were often errors and inconsistencies from one site to another.

By eliminating these issues, the organization told us that: "We have less errors in content showing in wrong places, or errors in content not showing at all. I would estimate that this resulted in a 70% reduction in customer support issues." In order to quantify the value of this benefit, the following assumptions were made:

› Online revenues totaled $1B, growing at 10% annually to reach $1.21B in Year 3.

› The average sales price is $250, resulting in a total online sales volume of 4.0M in Year 1, 4.4M in Year 2, and 4.8M in Year 3.

› For every hundred sales, there were five customer support inquiries, resulting in 200K inquiries in Year 1, 220K in Year 2, and 242K in Year 3. Each customer support enquiry takes 10 minutes to resolve.

› The hourly rate for customer support staff is $25, equivalent to a fully loaded salary of $45K.

› 50% of the productivity gain can be realized.

Finally, in order to account for other organizations which might not have such a level of productivity gain or reduction in customer support time, a 15% risk adjustment was implemented, yielding a three-year, risk-adjusted total PV of $676,136.

31%

$676,136

three-year
benefit PV
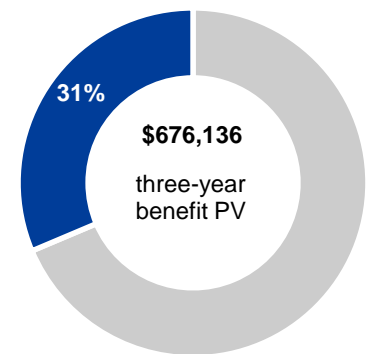
Fewer errors and inconsistencies have reduced customer support issues by 70%.

FORRESTER®

Reduced Customer Support Costs: Calculation Table

REF.	METRIC	CALC.	YEAR 1	YEAR 2	YEAR 3
B1	Online revenue		$1,000M	$1,100M	$1,210M
B2	Average sale price		$250	$250	$250
B3	Online sales volume	B1/B2	4,000,000	4,400,000	4,840,000
B4	Customer support inquiries (% sales)		5%	5%	5%
B5	Customer support inquiries	B3*B4	200,000	220,000	242,000
B6	Reduction in inquiries		70%	70%	70%
B7	Time per support enquiry (minutes)		10	10	10
B8	Hourly customer support cost		$25	$25	$25
B9	Productivity conversion factor		50%	50%	50%
Bt	Reduced customer support costs	B5*B6*B7/60*B8*B9	$291,667	$320,833	$352,917
	Risk adjustment	↓15%			
Btr	Reduced customer support costs (risk-adjusted)		$247,917	$272,708	$299,979

Unquantified Benefits

As described in the first benefit, the most positive outcome for the organization was that the brand team was freed from content development and management tasks, and thus they were able to dedicate their time to improving both the customer experience and the top line. While it has not been possible to obtain sensitive revenue numbers, by making some basic assumptions Forrester is able to assume the investment into the Dynamic Content platform might have contributed to the following revenue and margin estimations:

› The ability of the brand team to focus on improving the customer experience and delivering better coordinated campaigns delivers an annual online revenue upside of 1%. Assuming a margin of 5%, this might equate to an annual risk-adjusted profit uplift of $400K to $800K.

› In Year 2 of the launch of the second site, additional revenues of 2% are delivered, of which 85% is online. Assuming the same 5% margin, this equates to risk-adjusted incremental profits of $750K to $1.5M. Note, however, that there are additional marketing dollars and efforts from other parts of the organization that contribute to this delivery.

› Similarly, in Year 3 of the site's launch in a new region (the third site), additional revenues of 2% are delivered, of which 85% is online. With the same assumptions, this could bring in incremental profit margins of $750K to $1.5M.

› Altogether, over the three years, these incremental margins could deliver a net present value in excess of $4M. Again, however, Forrester stresses that there are additional costs involved from other parts of the business in setting up and supporting these brands and new activities. This benefit would replace the increased output per

The refocusing of the eCommerce brand team could contribute to a margin uplift of several million dollars.

FORRESTER®

worker benefits described in the section above, but it is very likely to be the higher number.

› The interviewee also told us that the morale and motivation of the online brand team improved significantly following the implementation of the Amplience platform, as it eliminated a lot of repetitive and manual tasks. As a result, they were better able to focus on their areas of expertise and utilize their skills, avoiding stressful and difficult situations. Furthermore, the team now also has more time for higher value tasks such as campaign management and long-term planning.

Analysis Of Costs

QUANTIFIED COST DATA

REF.	COST	INITIAL	YEAR 1	YEAR 2	YEAR 3	TOTAL	PRESENT VALUE
Total Costs							
Ctr	Software license fees	$0	$300,000	$350,000	$400,000	$1,050,000	$862,509
Dtr	Implementation costs	$98,400	$0	$0	$0	$98,400	$98,400
Etr	Administration costs	$0	$6,933	$6,933	$6,933	$20,800	$17,242
	Total costs (risk-adjusted)	$98,400	$306,933	$356,933	$406,933	$1,169,200	$978,151

Software License Fees

Licensing of the software platform is, by some way the largest cost element, making up 88% of the present value costs.

› Licensing fees are based on monthly web traffic; the interviewed organization has around 10M site visits per month, which equates to fees of around $300,000.

› As site traffic grows, the licensing fees increase. In Year 2, these fees come to $350K, and in Year 3 they increase to $400K.

There is no risk adjustment for the licensing fees, and there is no possibility of these being higher for an equivalent organization. The total licensing fees over the three years were $1,050,000, which, as a present value, equates to $862,509.

> The table above shows the total of all costs across the areas listed below, as well as present values (PVs) discounted at 10%. Over three years, the interviewed organization expects risk-adjusted total costs to be a PV of more than $975K.

> 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.

REF.	METRIC	CALC.	INITIAL	YEAR 1	YEAR 2	YEAR 3
Software License Fees: Calculation Table						
C1	License fees			$300,000	$350,000	$400,000
Ct	Software license fees		$0	$300,000	$350,000	$400,000
	Risk adjustment	0%				
Ctr	Software license fees (risk-adjusted)		$0	$300,000	$350,000	$400,000

FORRESTER®

Implementation Costs

The interviewed organization detailed all its implementation costs, which comprised of some professional services and an internal resource requirement. The implementation was completed in two phases because when the contract was signed an important holiday season was approaching and a complete platform migration would have been too disruptive at this important time.

› The first phase included setting up the platform and creating templates. This was painless and quick, with Amplience supporting the development team in how to create these templates while the tool was still separate — from which they would copy HTML to put onto the live site. This was already beneficial because it freed resources able to create more content during a busy time.

› The second phase, after the holiday season ended, was for integrating the platform across both the main site and the new sister site. There were two product managers involved, two developers, and one quality assurance specialist. This also included creating and implementing the caching strategy.

Professional services costs came to $50,000. The internal effort amounted, in total, to four FTEs each working for 144 hours. The hourly rate of $444 is based on an average salary of $100,000 (8 hours per day, five days per week, 45 weeks per year). This resulted in total internal effort of $32,000, and so the total implementation costs came to $82,000.

Even organizations of a similar size may have a very different initial setup, which might require additional internal resource time and/or professional services support. To account for these risks, Forrester adjusted this cost upward by 20%, yielding a three-year, risk-adjusted total PV of $98,400, which is equivalent to 10% of total costs.

> "We launched across all devices in both brands and it was relatively painless. It was simple, and really just about hooking up the back-end plumbing to the Amplience tool. It took just a couple of sprints."
>
> *Director, eCommerce marketing & merchandising, retail*

$98,400

three-year
cost PV
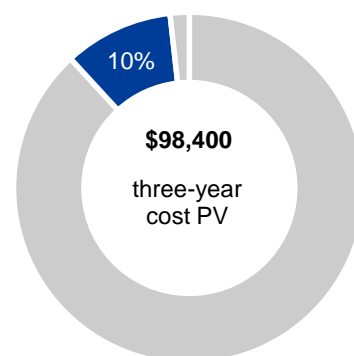
Implementation costs:
10% of total costs

REF.	METRIC	CALC.	INITIAL	YEAR 1	YEAR 2	YEAR 3
\	**Implementation Costs: Calculation Table**					
D1	Professional services		$50,000			
D2	Number of people for planning and implementation		4			
D3	Total hours/FTE		144			
D4	Hourly rate		$56			
Dt	Implementation costs (rounded)	D1+(D2*D3*D4)	$82,000	$0	$0	$0
	Risk adjustment	↑20%				
Dtr	Implementation costs (risk-adjusted)		$98,400	$0	$0	$0

FORRESTER®

Administration Costs

There is also a minimal administrative cost associated with the platform, which includes liaising with Amplience customer success managers, learning about new features and functionalities, and any other additional internal time requirements for use of the system. There are, however, no additional implementation of maintenance efforts, i.e., new versions of the tool do not require any resources for development.

It is assumed that two FTEs have to contribute, on average, 1 hour per week for each to these tasks, which equates to an annual cost of just under $6,000. Following a risk adjustment of 20%, in the case of a similar organization needing to allocate additional administrative time, the three-year, risk-adjusted PV comes to $17,242, which is equivalent to 2% of total costs.

$17,242

three-year
cost PV
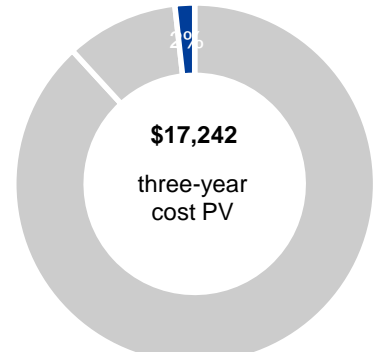
Administration costs: **2%**
of total costs

REF.	METRIC	CALC.	INITIAL	YEAR 1	YEAR 2	YEAR 3
Administration Costs: Calculation Table						
E1	Number of people for administration			2	2	2
E2	Total hours/FTE			52	52	52
E3	Hourly rate (rounded)			$56	$56	$56
Et	Administration costs	E1*E2*E3		$5,778	$5,778	$5,778
	Risk adjustment	↑20%				
Etr	Administration costs (risk-adjusted)		$0	$6,933	$6,933	$6,933

FORRESTER®

Financial Summary

CONSOLIDATED THREE-YEAR RISK-ADJUSTED METRICS

Cash Flow Chart (Risk-Adjusted)

■ Total costs

■ Total benefits

— Cumulative net benefits
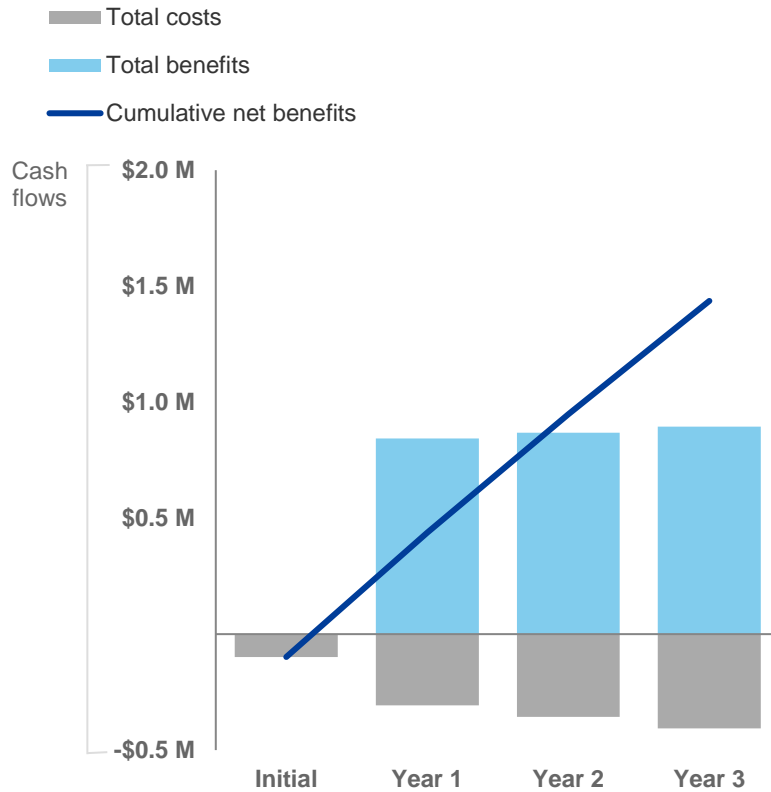
The financial results calculated in the Benefits and Costs sections can be used to determine the ROI, NPV, and payback period for the interviewed organization's investment. Forrester assumes a yearly discount rate of 10% for this analysis.

These risk-adjusted ROI, NPV, and payback period values are determined by applying risk- factors to the unadjusted results in each Benefit and Cost section.

Cash Flow Analysis (Risk-Adjusted)

	INITIAL	YEAR 1	YEAR 2	YEAR 3	TOTAL	PRESENT VALUE
Total costs	($98,400)	($306,933)	($356,933)	($406,933)	($1,169,200)	($978,151)
Total benefits	$0	$842,917	$867,708	$894,979	$2,605,604	$2,155,813
Net benefits	($98,400)	$535,983	$510,775	$488,046	$1,436,404	$1,177,662
ROI						120%

FORRESTER®

Amplience Dynamic Content: Overview

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

Dynamic Content is our headless and API-first, cloud-based content management solution. Its focus is the scheduling, production, and delivery of content for high-volume enterprises that want to drive engagement and conversion using multiple assets across myriad channels.

Unlike existing Web CMS solutions, Dynamic Content separates the management of content from its presentation. This separation means that developers define the structure of the content and content producers use the tools to create as many variations as they choose.

It removes complexity for the business users and gives them the control they need to move at pace in creating and deploying content; while technology teams are released from constant code updates. All teams can begin working to the full potential of their productivity.

The key differentiators:

- Integrated calendar interface and tools to allow planning and scheduling directly within the software.
- Can be used for all content drops from banners, promotional heroes and blogs through to rich editorial features, sophisticated buying guides, shoppable look-books, and detailed product comparison tables.
- Content produced is rendered on demand in whatever format is required as it is requested, delivering a consistent experience at every touchpoint.
- Ability to set up content drops in advance and specify exactly when and where they should go live.
- Built-in content visualization to preview exactly what content looks like on multiple devices before publishing.

FORRESTER®

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.

FORRESTER®

Appendix B: Supplemental Material

Related Forrester Research

"Agile Content Curation And Orchestration Will Redefine CMS," Forrester Research, Inc., November 15, 2018.

FORRESTER®