

A Forrester Total Economic Impact™ Study Prepared For PubMatic

The Total Economic Impact of PubMatic

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FORRESTER

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Executive Summary

In October 2012, PubMatic commissioned Forrester Consulting to examine the total economic impact and potential return on investment (ROI) enterprises may realize by deploying the PubMatic sell-side platform (SSP). The purpose of this study is to provide readers with a framework to evaluate the potential financial impact of PubMatic on an organization that publishes content with available advertising sales opportunities.

PubMatic Generates Incremental Ad Revenue and Simplifies Programmatic Sales

Our interviews with four existing customers and subsequent financial analysis found that a composite organization, based on these four companies, experienced the risk-adjusted ROI, costs and benefits shown in Table 1. For the purposes of this case study, the composite organization is known as “LaudNet.” (See Appendix A for a description of the composite organization.)

Table 1

LaudNet (Composite Organization) Three-Year Risk-Adjusted ROI¹

ROI	Payback period	Total benefits (PV)	Total costs (PV)	Net present value
334%	<1 month	\$5,110,960	(\$1,178,024)	\$3,932,936

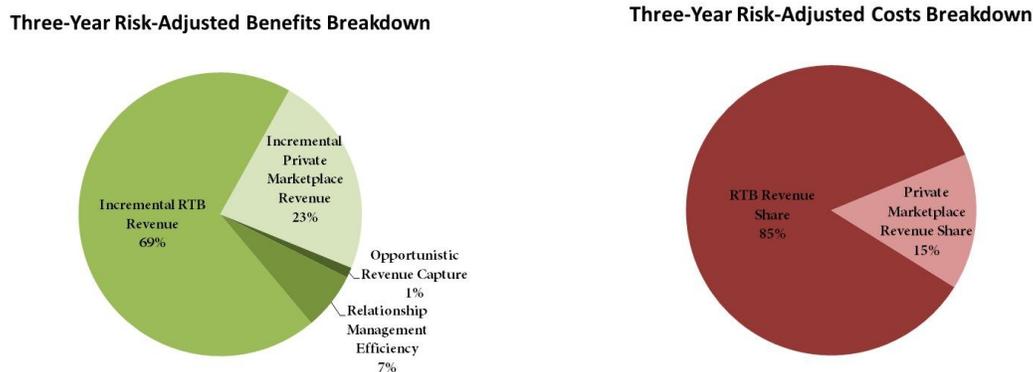
Source: Forrester Research, Inc.

- **Benefits.** LaudNet experienced the following benefits that represent those experienced by the interviewed companies:
 - **Incremental Real-Time Bidding (RTB) Revenue** – This benefit includes the revenue gained through PubMatic’s auctioning platform. Through yield optimization, LaudNet is enabled to increase average cost per mille (CPM) and sell more inventory to achieve incremental revenue compared to the pre-PubMatic environment.
 - **Incremental Private Marketplace Revenue** – This benefit essentially moves select advertisers, agencies, and/or demand partners into a tier between direct and RTB, and offers advertisers premium inventory at a higher CPM. This benefit is not realized for LaudNet until Year 2.
 - **Opportunistic Revenue Capture** – This benefit focuses on using PubMatic’s data analytics module to make impactful business decisions, like capturing short-term demands by industry.
 - **Brand Value Retention** – This benefit centers on PubMatic’s ability to stop and/or prevent ad violations on LaudNet’s websites, which could hurt brand value and page visits.

- **Relationship Management Efficiency** – This benefit describes the resource efficiency gained by using PubMatic, and the freedom to realign sales staff to focus on direct sales or other value added, high margin work, instead of work focused on manual processes.
- **Costs.** LaudNet experienced the following costs, representing those experienced by the interviewed companies:
 - **RTB Revenue Share** – There is a straightforward 15% revenue share based on volume and the CPM at which that LaudNet sells.
 - **Private Marketplace Revenue Share** – Similar to the RTB revenue share, the Private Marketplace revenue share works in relatively the same way, but with a slightly higher ratio, at 17%.

Figure 1

Three-Year Risk-Adjusted Cost/Benefit Breakdown



Source: Forrester Research, Inc.

Factors Affecting Benefits and Costs

Table 1 illustrates the risk-adjusted financial results that were achieved by LaudNet. These values take into account any potential uncertainty or variance that exists in estimating the costs and benefits, producing more conservative estimates. The following factors may affect the financial results that an organization may experience:

- Revenue share ratio.
- Use of demand partners and SSP's in addition to PubMatic.
- Adoption of PubMatic and insights from data analytics.
- A commitment to leveraging PubMatic to facilitate their work for organizations that have an in-house programmatic sales team.
- Defined roles for sales teams with a clear roadmap of leveraging programmatic buying as a sales opportunity.

Disclosures

The reader should be aware of the following:

- The study is commissioned by PubMatic and delivered by the Forrester Consulting group.
- Forrester makes no assumptions as to the potential return on investment that other organizations will receive. Forrester strongly advises that readers should use their own estimates within the framework provided in the report to determine the appropriateness of an investment in PubMatic.
- PubMatic 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.
- The customer names for the interviews were provided by PubMatic.

TEI Framework And Methodology

Introduction

From the information provided in the interviews, Forrester has constructed a Total Economic Impact™ framework for those organizations considering implementing PubMatic. The objective of the framework is to identify the cost, benefit, flexibility and risk factors that affect the investment decision.

Approach and Methodology

Forrester took a multistep approach to evaluate the impact that PubMatic can have on an organization (see Figure 2). Specifically, we:

- Interviewed PubMatic marketing, sales, product personnel and a Forrester analyst to gather data relative to PubMatic and its marketplace.
- Interviewed four organizations currently using PubMatic to obtain data with respect to costs, benefits and risks.
- Designed a composite organization, LaudNet, based on characteristics of the interviewed organizations (see Appendix A).
- Constructed a financial model representative of the interviews using the TEI methodology. The financial model is populated with the cost and benefit data obtained from the interviews as applied to the composite organization.

Figure 2

TEI Approach



Source: Forrester Research, Inc.

Forrester employed four fundamental elements of TEI in modeling PubMatic's service:

1. Costs.
2. Benefits to the entire organization.
3. Flexibility.
4. Risk.

Given the increasing sophistication that enterprises have regarding ROI analyses related to IT investments, Forrester's TEI methodology serves the purpose of providing a complete picture of the total economic impact of purchase decisions. Please see Appendix B for additional information on the TEI methodology.

Analysis

Interview Highlights

A total of four interviews were conducted for this study, involving representatives from the following companies:

1. A North American news channel with reach in Europe, Africa and Europe. Its website is consistently ranked amongst the top in its industry for unique users, with over 30 million each month. In addition to PubMatic, this customer works with two other demand partners on discretionary inventory.
2. A North American publisher with magazines, books and digital properties. It manages its digital properties of approximately 450 million impressions per month with a team of 30, including management, sales and ad operations staff. This customer consolidated 15 ad network relationships into two ad network relationships, with PubMatic providing yield optimization for the rest.
3. A North American media company that owns over 20 television channels and their respective websites. A centralized team of approximately 35 resources across ad/web operations, sales management and inventory optimization support local sales teams for 25 websites. This company migrated from another SSP and uses PubMatic exclusively.
4. A European travel services company that acts as a hub for providers and contact center for travel information. This customer uses PubMatic exclusively and runs a very lean operation with one sales manager and one ad operations manager.

The four interviews uncovered the following themes for our construction of LaudNet:

- **Yield optimization works.** All customers interviewed experienced a lift to CPM. By placing inventory on an auction platform, customers are now effectively allowing buyers to competitively bid for discretionary inventory. Not only does this allow for the highest bidders to win, resulting in a lift in average CPM, but PubMatic also has a detailed set of controls (e.g., price floors and block lists) that relieve customer worries around direct sales cannibalization. Furthermore, in most cases, customers reported an auction engine driving up programmatic CPM as a catalyst for improvements in direct sales.
- **Plugging into a SSP amplifies reach to demand.** As opposed to discovering, selecting and maintaining relationships with several ad networks, PubMatic is connected to over 400 demand partners that can bid for a publisher's inventory. Customers did not only experience a higher CPM, but also a higher fill rate.
- **A premium buyer's tier between direct and programmatic is growing in popularity.** Interviewed customers that participated in the Private Marketplace experienced a higher CPM for inventory sold through that channel. This avenue allows publishers to offer nonguaranteed, premium inventory to demand partners looking for particular attributes such as increased exposure, higher eCPM, etc.
- **Data analytics and dashboards provide actionable suggestions, which lead to more sales.** Customers agree that data analytics and dashboards are useful when reviewing trends and trajectories. Furthermore, at least one customer saw a tangible impact resulting from a business decision made based on reviewing a lost bids report.

- **Creative and ad violations are harmful to brands.** Ad violations can range from severe malware issues to an ad that is misaligned with the publisher's brand; but all violations cause headaches for publishers because they have implications for page visits. Customers reported that PubMatic has a good grasp on keeping these violations to a minimum; those that do happen are swiftly stopped and prevented from future occurrence.
- **Simplifying programmatic sales frees up resources for more direct sales.** Moving from managing multiple ad networks, SSP's and other programmatic channels to using PubMatic exclusively can be a very effective way of boosting direct sales. Not only does Private Marketplace take a step toward building a potential direct sales partner, but the reduced headcount need in programmatic sales actually frees up resources to nurture those Private Marketplace relationships.
- **Singular and exclusive use of PubMatic delivers greater benefits.** Interviews showed that customers using PubMatic exclusively as a demand side platform experienced greater benefits with two key causes. First, by consolidating discretionary inventory on a single platform, publishers are able to reintroduce scarcity of their inventory in the market. And second, customers were able to see greater resource efficiencies when they fully leveraged PubMatic's ability to automate the management of ad network relationships.

LaudNet – Composite Organization

Based on the interviews with the four existing customers provided by PubMatic, Forrester constructed a TEI framework, a composite company and an associated ROI analysis that illustrates the areas that are financially affected. LaudNet, the composite organization that Forrester synthesized from these results, represents a North American publisher that owns several media companies engaged in TV news broadcasting, radio and print magazines. Over all its websites, LaudNet serves 500 million ad impressions each month. LaudNet's interactive marketing team has a total headcount of 25 people, consisting of 10 staffed in direct ad sales, five staffed in programmatic ad sales, and 10 staffed in ad operations.

Prior to engaging PubMatic, approximately 40% of inventory was monetized through direct sales, which accounted for 70% of total ad revenue. The average CPM for direct sales was around \$2.00. LaudNet has been unable to monetize all 60% of discretionary inventory through its relationships with several ad networks. LaudNet's objectives in choosing a SSP were:

- Achieve a higher average CPM through yield optimization.
- Monetize 90%+ of discretionary inventory.
- Engage in Private Marketplace at the right time.
- Attain an approximate 50/50 split in direct and programmatic revenue to boost competition for direct sales team.
- Maintain less low-margin relationships and free up time to develop more, higher margin relationships

Before choosing a SSP, LaudNet performed a competitive analysis and was swayed by PubMatic's team of industry veterans, clear roadmap for publishers, research that showed insight and experience and dedication to customer service.

Framework Assumptions

Table 2 provides the model assumptions that Forrester used in this analysis.

Table 2
Model Assumptions

Ref.	Metric	Calculation	Value
X1	Hours per week		40
X2	Weeks per year		52
X3	Hours per year (M-F, 9-5)		2,080
X4	Hours per year (24x7)		8,760
X5	FTE sales, manager		\$90,000
X6	Hourly	(X5/X3)	\$43

Source: Forrester Research, Inc.

The discount rate used in the PV and NPV calculations is 10%; the time horizon used for the financial modeling is three years. Organizations typically use discount rates between 8% and 16% based on their current environment. Readers are urged to consult with their respective company's finance department to determine the most appropriate discount rate to use within their own organizations.

Costs

LaudNet's costs associated with PubMatic are primarily based on revenue share agreements. The revenue share model is relatively simple, as PubMatic essentially takes a percentage of each sale and then passes on the rest as revenue to LaudNet. The percentage is different for sales made through RTB and Private Marketplace.

Although there are costs associated with resources, and time needed to ramp up PubMatic and manage discretionary sales through PubMatic, the efficiency that PubMatic affords LaudNet makes this a benefit instead of a cost. More details can be found in the Benefits section.

Lastly, PubMatic did note that the use of Audience Direct and certain custom reports or consulting would incur additional fees. However, LaudNet did not engage in any of these services, thus, these costs will not be included below.

RTB Revenue Share

The revenue share ratio that PubMatic provided to LaudNet is 15% for all RTB sales. LaudNet sells a majority of its discretionary inventory through RTB. A portion (0-20%, varying based on brokered deals with advertisers, agencies,

and demand partners) is sold via Private Marketplace at a higher average CPM and a smaller portion (1%) is sold to seasonal buyers with short term demands at a lower average CPM. Opportunistic sales are a good way to identify and form partnerships with buyers that have repeated short term demands.

Based on discretionary inventory that is 60% of 500 million impressions per month, LaudNet incurred around \$350,000 in costs each year through RTB sales. Since the revenue share ratio does not change for LaudNet regardless of volume sold or CPM, the only factor that can significantly impact ROI is a change in the revenue share ratio. Table 3 displays the details of the RTB cost component over three years without the risk factor.

Table 3

RTB Revenue Share – Non-Risk-Adjusted

Ref.	Metric	Calculation	Year 1	Year 2	Year 3
A1	Discretionary RTB inventory sold per month	Composite, refer to benefits	297,000,000	252,000,000	237,000,000
A2	RTB average CPM	Composite, refer to benefits	\$0.78	\$0.81	\$0.81
A3	Discretionary opportunistic inventory sold per quarter	Composite, refer to benefits	9,000,000	9,000,000	9,000,000
A4	Opportunistic average CPM	Composite, refer to benefits	\$0.70	\$0.73	\$0.73
A5	Revenue share ratio	PubMatic provided	15%	15%	15%
At	RTB Revenue Share	$(A1 \times A2) / 1000 \times 12 + (A3 \times A4) / 1000 \times 4 \times A5$	\$420,779	\$371,353	\$349,483

Source: Forrester Research, Inc.

Private Marketplace Revenue Share

In LaudNet's first year using PubMatic, it did not engage in Private Marketplace. Instead, it focused more on monetizing 100% of discretionary inventory and increasing average CPM through the auction system. Once the company was comfortable with using PubMatic and the concept of a Private Marketplace, it agreed to a 17% revenue share ratio for Private Marketplace sales and sell 15% of its inventory in Year 2 via Private Marketplace. It increased volume to 20% in Year 3 and resulted in approximately \$100,000 in Private Marketplace revenue share costs each year besides Year 1.

Similar to the RTB revenue share model, the 17% revenue share ratio is fixed and is the only factor that can significantly impact the ROI. A change in either volume or Private Marketplace CPM would only increase the NPV. Table 4 displays the details of the Private Marketplace cost component over three years without the risk factor.

Table 4

Private Marketplace Revenue Share – Non-Risk-Adjusted

Ref.	Metric	Calculation	Year 1	Year 2	Year 3
B1	Private Marketplace average monthly volume	Composite, refer to benefits	0	45,000,000	60,000,000
B2	Private Marketplace average CPM	Composite, refer to benefits	\$1.17	\$1.22	\$1.22
B3	Revenue share ratio	PubMatic provided	17%	17%	17%
Bt	Private Marketplace Revenue Share	$((B1*B2)/1000)*B3*12$	\$0	\$92,948	\$123,930

Source: Forrester Research, Inc.

Total Costs

As stated in the sections above, the costs of implementing and running the PubMatic platform consist of revenue share costs. All costs related to ramp up time and ongoing time dedicated to platform engagement result in a net positive impact and are therefore, considered a benefit. Table 5 shows the total of all costs mentioned above as well as associated present values, discounted at 10%.

Table 5

Total Costs – Non-Risk-Adjusted

Costs	Initial	Year 1	Year 2	Year 3	Total	Present Value
RTB Revenue Share	\$0	(\$420,779)	(\$371,353)	(\$349,483)	(\$1,141,614)	(\$952,001)
Private Marketplace Revenue Share	\$0	\$0	(\$92,948)	(\$123,930)	(\$216,878)	(\$169,927)
Total	\$0	(\$420,779)	(\$464,301)	(\$473,413)	(\$1,358,492)	(\$1,121,928)

Source: Forrester Research, Inc.

Benefits

LaudNet experienced five specific benefits that can be grouped into three categories:

- **Incremental revenue generation**
 - Incremental RTB revenue

- Incremental Private Marketplace revenue
- Opportunistic revenue capture
- **Brand value retention**
- **Relationship management efficiency**

Incremental revenue is focused on selling more inventory at a higher CPM relative to pre-PubMatic deployment. Brand value retention is focused on the technology enabling LaudNet to avoid costly ad violations that could hurt the brand and page visits. Lastly, LaudNet gained a resource-efficiency in programmatic sales as it did not have to manage multiple ad network relationships anymore.

Incremental RTB Revenue

The most apparent benefit that LaudNet experienced is incremental revenue from leveraging RTB. LaudNet experienced a 30% lift in CPM in Year 1, which plateaued at 35% for Year 2 and Year 3. Not only did LaudNet's average CPM increase, the company was also able to monetize 100% of its discretionary inventory.

In Year 1, LaudNet sold 99% of its discretionary inventory through the auction engine. Compared to a \$0.60 CPM monetizing 50% of discretionary inventory pre-PubMatic deployment, LaudNet achieved incremental revenue of \$1.7M in Year 1. This incremental revenue drops to \$1.4M and \$1.2M in Years 2 and Year 3, respectively, due to a larger allocation of inventory to Private Marketplace sales. Table 6 displays the details of the incremental RTB benefit over three years without the risk factor.

Table 6
Incremental RTB Revenue – Non-Risk-Adjusted

Ref.	Metric	Calculation	Initial	Year 1	Year 2	Year 3
C1	Initial average CPM	Composite	\$0.60	-	-	-
C2	Total discretionary inventory per month	500,000,000*60%	300,000,000	-	-	-
C3	Initial discretionary inventory sold per month ratio	Composite	50%	-	-	-
C4	Initial discretionary inventory sold per month	C2*C3	150,000,000	-	-	-
C5	Initial discretionary revenue per month	C4*C1	\$90,000	-	-	-
C6	Lift to RTB CPM	Composite	-	30%	35%	35%
C7	RTB average CPM	$C1_{\text{initial}} * (1 + C6)$	-	\$0.78	\$0.81	\$0.81

Ref.	Metric	Calculation	Initial	Year 1	Year 2	Year 3
C8	Discretionary RTB inventory sold per month ratio	Composite	-	99%	84%	79%
C9	Discretionary RTB inventory sold per month	$C2_{\text{initial}} * (1+C8)$	-	297,000,000	252,000,000	237,000,000
C10	Discretionary RTB revenue per month	$(C9 * C7) / 1000$	-	\$231,660	\$204,120	\$191,970
Ct	Incremental RTB Revenue	$(C10 - C5) * 12$	-	\$1,699,920	\$1,369,440	\$1,223,640

Source: Forrester Research, Inc.

Incremental Private Marketplace Revenue

LaudNet started engaging Private Marketplace buyers in Year 2. 15% of discretionary inventory was sold through Private Marketplace in Year 2. This allocation grew to 20% in Year 3. LaudNet made this business decision based on a consistent demand for premium inventory at higher rates that add an additional estimated 50% on top of the average RTB CPM. At a lower volume but higher margin, LaudNet achieved around \$650,000 in Year 2 and close to \$900,000 in Year 3. Table 7 displays the details of the incremental Private Marketplace benefit over three years without the risk factor.

Table 7

Incremental Private Marketplace Revenue – Non-Risk-Adjusted

Ref.	Metric	Calculation	Year 1	Year 2	Year 3
D1	RTB average CPM	C7	\$0.78	\$0.81	\$0.81
D2	Incremental lift to Private Marketplace CPM	Composite	50%	50%	50%
D3	Private Marketplace average CPM	$D1 * (1 + D2)$	\$1.17	\$1.22	\$1.22
D4	Discretionary Private Marketplace inventory sold per month ratio	Composite	0%	15%	20%
D5	Discretionary Private Marketplace inventory sold per month	$D4 * C2_{\text{initial}}$	0	45,000,000	60,000,000
D6	Discretionary Private Marketplace revenue per month	$(D5 * D3) / 1000$	\$0	\$54,675	\$72,900
Dt	Incremental Private Marketplace Revenue	$D6 * 12$	\$0	\$656,100	\$874,800

Source: Forrester Research, Inc.

Opportunistic Revenue Capture

When reviewing data analytics reports and bid loss information, LaudNet noticed that the same advertiser lost a large amount of bids due primarily to pricing. LaudNet discovered this advertiser represented a national TV channel that had exclusive rights to a popular sporting event that was to take place in two to three weeks. LaudNet made the business decision to lower its pricing floor to accommodate this TV channel's bids and subsequently developed a Private Marketplace relationship with this advertiser for future short-term demand buys. As a result of this experience, LaudNet has been more diligent in reviewing data to determine sales prospects with short-term and potentially long-term demand.

As Table 8 shows, not only does LaudNet need to take a discount in CPM (10%) to accommodate certain seasonal buys, the volume is also minimal (1%). The true value is in the relationship created with a demand partner that could become a direct sales client or a Private Marketplace partner, not exclusively in the RTB revenue (around \$25,000 each year).

Table 8
Opportunistic Revenue Capture – Non-Risk-Adjusted

Ref.	Metric	Calculation	Year 1	Year 2	Year 3
E1	RTB average CPM	C7	\$0.78	\$0.81	\$0.81
E2	CPM floor discount	Composite	10%	10%	10%
E3	Opportunistic average CPM	$E1 - (E1 * E2)$	\$0.70	\$0.73	\$0.73
E4	Discretionary opportunistic inventory sold per quarter ratio	Composite	1%	1%	1%
E5	Discretionary opportunistic inventory sold per quarter	$(E4 * C2_{initial}) * 3$	9,000,000	9,000,000	9,000,000
E6	Discretionary opportunistic revenue per quarter	$(E5 * E3) / 1000$	\$6,318	\$6,561	\$6,561
Et	Opportunistic Revenue Capture	$E6 * 4$	\$25,272	\$26,244	\$26,244

Source: Forrester Research, Inc.

Brand Value Retention

LaudNet has a very strict policy against ad violations. It has never experienced problems with malware, but there have been ads that do not show up correctly and ads for products and services that do not align with LaudNet's branding.

For example, although LaudNet had set up a filter against fast food chains for its website associated with a popular healthy lifestyle magazine, an ad for a smaller, regional deli chain known for unhealthy portions was still delivered.

These examples are very rare on PubMatic's platform, which features both computer intelligence in filtering and human intelligence in the form of live associates monitoring multiple screens for ad violations. Moreover, LaudNet appreciated not only PubMatic's ability to put a stop to ad violations, but more importantly, the ability to prevent similar violations from happening in the future.

Although LaudNet did not have any clear pre-PubMatic data focused on ad violations, it realizes that this is a benefit and provides the framework to quantify it in Appendix E. With enough past data, LaudNet could probably find a correlation between ad violations and reduction in unique visitors, which could also explain the impact unique visitors have on CPM.

Relationship Management Efficiency

LaudNet's original team of five programmatic sales staff has been downscaled to two managers. Not only did LaudNet refocus three sales staff to sell premium ad programs and Private Marketplace deals, but the two managers that consistently use PubMatic do not spend nearly the amount of time the programmatic team did (80%) with maintaining ad network relationships. Besides an initial ramp up period of one month that required the two managers to spend 50% of their time with PubMatic, the ongoing use of PubMatic's platform and data analysis takes only about 20% of their time.

This efficiency allows LaudNet to focus resources on more value-added and higher margin activities, while knowing that discretionary inventory will be monetized at a high and effective rate. As Table 9 shows, the efficiency gain between current resource need and pre-PubMatic resource need for programmatic sales, results in an approximately \$150,000 benefit each year.

Table 9
Relationship Management Efficiency – Non-Risk-Adjusted

Ref.	Metric	Calculation	Initial	Year 1	Year 2	Year 3
G1	Initial programmatic sales FTEs	Composite	5	-	-	-
G2	Sales FTE salary	Assumption	\$45,000	-	-	-
G3	Time spent managing ad network relationships	Composite	80%	-	-	-
G4	Initial cost of ad network relationship management	$G1 * G2 * G3$	\$180,000	-	-	-
G5	Current programmatic sales FTEs	Composite	-	2	2	2
G6	Manager FTE salary	Assumption	-	\$90,000	\$90,000	\$90,000

Ref.	Metric	Calculation	Initial	Year 1	Year 2	Year 3
G7	Monthly salary expense	$(G6*G5)/12$	-	\$15,000	\$15,000	\$15,000
G8	Time spent during the one month ramp up period	Composite	-	50%	0%	0%
G9	Time spent on ongoing management	Composite	-	20%	20%	20%
Gt	Relationship Management Efficiency	$G4_{initial} - (G7*G8)+(G9*G7*11)$	-	\$139,500	\$147,000	\$147,000

Source: Forrester Research, Inc.

Total Benefits

Table 10 shows the total of all benefits mentioned above as well as associated present values, discounted at 10%.

Table 10

Total Benefits – Non-Risk-Adjusted

Benefits	Initial	Year 1	Year 2	Year 3	Total	Present Value
Incremental RTB Revenue		\$1,699,920	\$1,369,440	\$1,223,640	\$4,293,000	\$3,596,489
Incremental Private Marketplace Revenue		\$0	\$656,100	\$874,800	\$1,530,900	\$1,199,482
Opportunistic Revenue Capture		\$25,272	\$26,244	\$26,244	\$77,760	\$64,381
Brand Value Retention		\$0	\$0	\$0	\$0	\$0
Relationship Management Efficiency		\$139,500	\$147,000	\$147,000	\$433,500	\$358,749
Total		\$1,864,692	\$2,198,784	\$2,271,684	\$6,335,160	\$5,219,101

Source: Forrester Research, Inc.

Flexibility

Flexibility, as defined by TEI, represents an investment in additional capacity or capability that could be turned into business benefit for some 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. There are multiple scenarios in which a customer might

choose to implement PubMatic and later realize additional uses and business opportunities. Flexibility would also be quantified when evaluated as part of a specific project (described in more detail in Appendix B).

LaudNet looks forward to several future benefits from PubMatic. Although LaudNet is familiar with the use of brand controls and filters, it is exploring new methods to combine insight from data analytics with the controls and filters to create potential industry-specific strategies.

LaudNet also recognizes that the PubMatic platform is a software-as-a-service (SaaS), and represents a system development and IT cost that it did not have to incur internally. Furthermore, LaudNet expects the innate benefits of SaaS to continue to evolve, including 99%+ uptime, technical expertise and periodic releases and new features to benefit LaudNet. Two particular areas that PubMatic already cover, which LaudNet will explore next, are applying the PubMatic toolset to LaudNet's mobile inventory channel and proactively measuring the impact that PubMatic has on user experience and monthly unique visits due to reduction of latency and more personalized ads.

Lastly, LaudNet not only enjoys access to over 400 demand partners, but also the opportunity to meet with peers, industry veterans and analysts during PubMatic's annual events. This is a great networking opportunity and potentially a great avenue for both further insight and lead generation.

Risk

Forrester defines two types of risk associated with this analysis: implementation risk and impact risk. "Implementation risk" is the risk that a proposed investment in PubMatic may deviate from the original or expected requirements, resulting in higher costs than anticipated. "Impact risk" refers to the risk that the business or technology needs of the organization may not be met by the investment in PubMatic, resulting in lower overall total benefits. The greater the uncertainty, the wider the potential range of outcomes for cost and benefit estimates.

Quantitatively capturing investment and impact risk, by directly adjusting the financial estimates, results in more meaningful and accurate estimates and a more accurate projection of the ROI. In general, risks affect costs by raising the original estimates, and they affect benefits by reducing the original estimates. The risk-adjusted numbers should be taken as "realistic" expectations since they represent the expected values considering risk.

The following implementation risks that affect costs are identified as part of this analysis:

- Increased revenue share ratio.

The following impact risks that affect benefits are identified as part of the analysis:

- Spreading inventory across too many demand partners and not enabling scarcity for higher pricing.
- Reduced demand for premium inventory to be sold via Private Marketplace.
- Skip or do not spend enough time reviewing data analytics reports and dashboard.
- Overburdened or uninterested programmatic ad sales team that ramps up slowly.
- Freed up resources that are not reallocated to drive higher margin business value.

Table 11 shows the values used to adjust for risk and uncertainty in the cost and benefit estimates. The TEI model uses a triangular distribution method to calculate risk-adjusted values. To construct the distribution, it is necessary to first estimate the low, most likely and high values that could occur within the current environment. The risk-adjusted value is the mean of the distribution of those points. Readers are urged to apply their own risk ranges based on their own degree of confidence in the cost and benefit estimates.

Table 11
Cost and Benefit Risk Adjustments

Costs	Low	Most likely	High	Mean
RTB Revenue Share	100%	100%	115%	105%
Private Marketplace Revenue Share	100%	100%	115%	105%
Benefits	Low	Most likely	High	Mean
Incremental RTB Revenue	90%	100%	105%	98%
Incremental Private Marketplace Revenue	90%	100%	105%	98%
Opportunistic Revenue Capture	80%	100%	100%	93%
Brand Value Retention	-	-	-	-
Relationship Management Efficiency	80%	100%	100%	93%

Source: Forrester Research, Inc.

Readers are urged to apply their own risk ranges based on their own degree of confidence in the cost and benefit estimates.

Financial Summary

The financial results calculated in the Costs and Benefits sections can be used to determine the return on investment, net present value and payback period for the organization's investment in PubMatic. These are shown in Table 12.

Table 12

Cash Flow — Non-Risk-Adjusted

Cash flow — Original estimates						
	Initial	Year 1	Year 2	Year 3	Total	Present value
Costs	\$0	(\$420,779)	(\$464,301)	(\$473,413)	(\$1,358,492)	(\$1,121,928)
Benefits	\$0	\$1,864,692	\$2,198,784	\$2,271,684	\$6,335,160	\$5,219,101
Net benefits	\$0	\$1,443,913	\$1,734,483	\$1,798,271	\$4,976,668	\$4,097,174
ROI	365%					
Payback period	<1 month					

Source: Forrester Research, Inc.

Table 13, below, shows the risk-adjusted ROI, NPV and payback period values. These values are determined by applying the risk-adjustment values from Table 11 in the Risk section to the cost and benefits numbers in Tables 5 and 10.

Table 13

Cash Flow — Risk-Adjusted

Cash flow — Risk-adjusted estimates						
	Initial	Year 1	Year 2	Year 3	Total	Present value
Costs	\$0	(\$441,818)	(\$487,516)	(\$497,083)	(\$1,426,417)	(\$1,178,024)
Benefits	\$0	\$1,825,375	\$2,153,475	\$2,225,160	\$6,204,011	\$5,110,960
Net benefits	\$0	\$1,383,557	\$1,665,960	\$1,728,077	\$4,777,594	\$3,932,936
ROI	334%					
Payback period	<1 month					

Source: Forrester Research, Inc.

PubMatic: Overview

Since 2006, PubMatic has been at the forefront of developing innovative technology to help publishers automate the process of evaluating and selling their advertising inventory. PubMatic gives premium publishers a real-time media selling platform for managing revenue and brand strategy. PubMatic's platform combines real-time bidding (RTB), the most comprehensive brand protection tools, unified optimization and audience insights as well as hands-on support to serve the world's leading publishers. PubMatic is privately held, backed by funding from August Capital, Draper Fisher Jurvetson, Nexus Venture Partners, and Helion Ventures, and has seven offices around the world in the U.S., Europe and Asia.

Appendix A: Composite Organization Description

Based on the interviews with the four existing customers provided by PubMatic, Forrester constructed a TEI framework, a composite company and an associated ROI analysis that illustrates the areas financially affected. LaudNet, the composite organization that Forrester synthesized from these results, represents a North American publisher that owns several media companies engaged in TV news broadcasting, radio and print magazines. Over all its websites, LaudNet serves 500 million ad impressions each month. LaudNet's interactive marketing team has a total headcount of 25 people consisting of 10 staffed in direct ad sales, five staffed in programmatic ad sales and 10 staffed in ad operations.

Prior to engaging PubMatic, approximately 40% of inventory was monetized through direct sales and made up 70% of total ad revenue. LaudNet has been unable to monetize all of the 60% of discretionary inventory through relationships with several ad networks. LaudNet's objectives in choosing a SSP were:

- Achieve a higher average CPM through yield optimization.
- Monetize 90%+ of discretionary inventory.
- Engage in Private Marketplace at the right time.
- Attain an approximate 50/50 split in direct and programmatic revenue to boost competition in direct sales team.
- Maintain fewer low-margin relationships and free up time to develop more, higher-margin relationships.

Before choosing a SSP, LaudNet performed a competitive analysis. Executives were swayed by PubMatic's team of industry veterans, clear roadmap for publishers, research that showed insight and experience and dedication to customer service.

Appendix B: Total Economic Impact™ Overview

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.

The TEI methodology consists of four components to evaluate investment value: benefits, costs, risks and flexibility.

Benefits

Benefits represent the value delivered to the user organization — IT and/or business units — by the proposed product or project. Often product or project justification exercises focus just on IT cost and cost reduction, leaving little room to analyze the effect of the technology on the entire organization. The TEI methodology and the resulting financial model place 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. Calculation of benefit estimates involves a clear dialogue with the user organization to understand the specific value that is created. In addition, Forrester also requires that there be a clear line of accountability established between the measurement and justification of benefit estimates after the project has been completed. This ensures that benefit estimates tie back directly to the bottom line.

Costs

Costs represent the investment necessary to capture the value, or benefits, of the proposed project. IT or the business units may incur costs in the form of fully burdened labor, subcontractors or materials. Costs consider all the investments and expenses necessary to deliver the proposed value. In addition, the cost category within TEI captures any incremental costs over the existing environment for ongoing costs associated with the solution. All costs must be tied to the benefits that are created.

Risk

Risk measures the uncertainty of benefit and cost estimates contained within the investment. Uncertainty is measured in two ways: 1) the likelihood that the cost and benefit estimates will meet the original projections, and 2) the likelihood that the estimates will be measured and tracked over time. TEI applies a probability density function known as “triangular distribution” to the values entered. At minimum, three values are calculated to estimate the underlying range around each cost and benefit.

Flexibility

Within the TEI methodology, direct benefits represent one part of the investment value. While direct benefits can typically be the primary way to justify a project, Forrester believes that organizations should be able to measure the strategic value of an investment. Flexibility represents the value that can be obtained for some future additional investment building on top of the initial investment already made. For instance, an investment in an enterprise-wide upgrade of an office productivity suite can potentially increase standardization (to increase efficiency) and reduce licensing costs. However, an embedded collaboration feature may translate to greater worker productivity if activated. The collaboration can only be used with additional investment in training at some future point in time. However,

having the ability to capture that benefit has a present value that can be estimated. The flexibility component of TEI captures that value.

Appendix C: Glossary

Discount rate: The interest rate used in cash flow analysis to take into account the time value of money. Although the Federal Reserve Bank sets a discount rate, companies often set a discount rate based on their business and investment environment. Forrester assumes a yearly discount rate of 10% for this analysis. Organizations typically use discount rates between 8% and 16% based on their current environment. Readers are urged to consult their respective organization to determine the most appropriate discount rate to use in their own environment.

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.

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 net present value of cash flows.

Payback period: The breakeven point for an investment. The point in time at which net benefits (benefits minus costs) equal initial investment or cost.

Return on investment (ROI): A measure of a project's expected return in percentage terms. ROI is calculated by dividing net benefits (benefits minus costs) by costs.

A Note On Cash Flow Tables

The following is a note on the cash flow tables used in this study (see the example table below). The initial investment column contains costs incurred at "time 0" or at the beginning of Year 1. Those costs are not discounted. All other cash flows in Years 1 through Year 3 are discounted using the discount rate (shown in Framework Assumptions section) at the end of the year. Present value (PV) calculations are calculated for each total cost and benefit estimate. Net present value (NPV) calculations are not calculated until the summary tables and are the sum of the initial investment and the discounted cash flows in each year.

Table [Example]

Example Table

Ref.	Category	Calculation	Initial cost	Year 1	Year 2	Year 3	Total

Source: Forrester Research, Inc.

Appendix D: Brand Value Retention Framework

Although LaudNet did not have any clear pre-PubMatic data focused on ad violations, it realizes that this is a benefit and provides the framework to quantify it below. With enough past data, LaudNet could probably find a correlation between ad violations and reduction in unique visitors, which could also explain the impact unique visitors have on CPM.

Brand Value Retention – Non-Risk-Adjusted

Ref.	Metric	Calculation	Year 1	Year 2	Year 3
F1	Ad violations avoided				
F2	Reduction in unique visitors				
F3	Impact to CPM				
Ft	Brand Value Retention				

Source: Forrester Research, Inc.

Appendix E: Endnotes

¹ Forrester risk-adjusts the summary financial metrics to take into account the potential uncertainty of the cost and benefit estimates. For more information on Risk, please refer to Appendix B.