Forrester[®]



The Total Economic Impact™
Of Foursquare Attribution

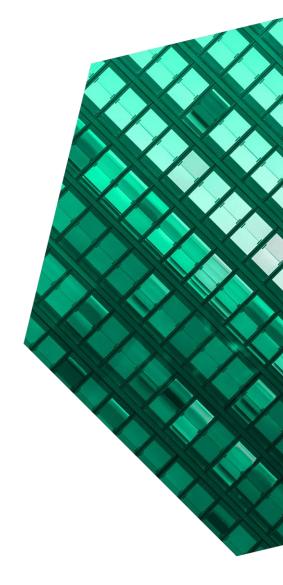
Cost Savings And Business Benefits
Enabled By The Independent Location Data Platform

JUNE 2022

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Consulting Team: Kara Luk Veronica Iles



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Executive Summary

As business heads into an insights-driven future, marketers must prove more than incremental value; they must deliver quantitative proof and a basis for strategic and tactical marketing decisions.¹ Brands that still rely on channel-siloed reporting or guesswork models must evolve to more sophisticated measurement approaches like location intelligence and digital attribution models to better understand customer engagement, evaluate media tactics, and optimize advertising spend.

<u>Foursquare Attribution</u> enables brands to measure and understand how advertising dollars drive foot traffic to stores. Powered by a persistent location data platform, attribution methodology, and ecosystem of advertising partners, Foursquare Attribution fuels insights to shape marketing strategies that most effectively drive store visits.

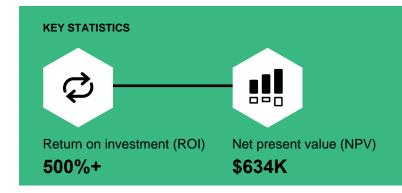
Foursquare commissioned Forrester Consulting to conduct a Total Economic Impact™ (TEI) study and examine the potential return on investment (ROI) enterprises may realize by deploying Foursquare Attribution.² The purpose of this study is to provide readers with a framework to evaluate the potential financial impact of Foursquare Attribution on their organizations.

To better understand the benefits, costs, and risks associated with this investment, Forrester interviewed three representatives from a media agency ("agency") about their firm's experience using Foursquare Attribution on behalf of a convenience store brand ("brand"). Forrester used these interviews to project a three-year financial analysis for the convenience store brand.

Increase in incremental store visits per ad dollar spent:

80%





Prior to fully adopting Foursquare Attribution, the agency applied Foursquare's measurement capabilities on an ad hoc basis, measuring the impact of individual advertising partners in isolated campaign analyses. Without a consolidated view of campaign performance across partners, the agency leveraged traditional campaign metrics and high-level trip volume data to inform marketing strategies that could best optimize advertising spend. Driving in-store visits became increasingly important to the brand, necessitating more granular and accurate insights into which partners and campaign strategies were driving success. The brand's prior approach to attribution measurement lacked this.

After the reinvestment and tactical shift, the brand began using Foursquare Attribution to measure all digital advertising activity across partners through unified, multipartner analyses. The enhanced visibility helps the agency make more informed decisions on where to focus its advertising efforts, which increases visits to the brand's stores and grows incremental revenue driven by paid media.

KEY FINDINGS

Quantified benefits. Three-year, risk-adjusted present value (PV) quantified benefits include:

• Increased impact of ad spend on incremental store visits. Through consolidating Foursquare Attribution data into multipartner analysis, the brand and agency gain better insight into which partners, creatives, and tactics drive incremental lift, and they can make better decisions on where to focus spend. By optimizing spend towards better performing partners, the brand increases advertising impact with target audiences and behavioral lift, driving incremental visits to the store. Over three years, the profit from the improved ad spend and incremental store visits is worth \$745,000 to the brand.

Unquantified benefits. Benefits that are not quantified for this study include:

- Cost per store visit optimization. With access
 to more unified and accurate data on cost per
 store visit at the partner level, the agency
 reallocates advertising spend away from
 underperforming partners to more cost-efficient
 and effective channels to maximize the impact of
 ad spend during its campaigns.
- Efficiency gains for the brand's agency resources. Using Foursquare Attribution reduces the time and effort required to measure, analyze, and report on attribution data, freeing agency resources to focus on other creative and strategic activites around campaign management.

Costs. Three-year, risk-adjusted PV costs include:

 Foursquare Attribution fees paid indirectly by the brand. The majority of Foursquare Attribution fees are covered by advertising partners as a value-add to the brand's media investments.
 Over three years, the brand incurs \$37,000 in costs, comprised of remaining Foursquare Attribution fees passed from the agency to the brand and measurement fees built into the agency's contract for the agency's services that leverage Foursquare data.

Summary. The interview and financial analysis found that the brand experiences benefits of \$671,000 over three years versus costs of \$37,000, adding up to a net present value (NPV) of \$634,000 and an ROI of over 500%.

"[Foursquare is] able to measure across so much of the ecosystem. They are a mediaagnostic partner that people are willing to work with and are willing to cover the fees for it. That's a big advantage. They've been a longtime industry leader in this space as well."

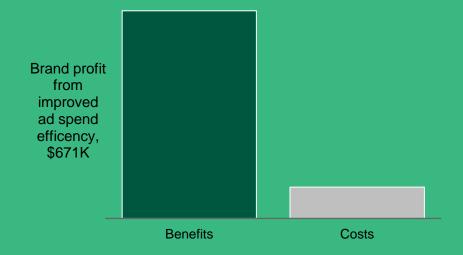
Associate media director of audience activation, media agency

"Attribution is pretty hard to do and there aren't that many vendors that can do it as well as Foursquare can."

Associate director of analytics, media agency



Financial Summary (Three-Year)



"Seeing the granularity, how effective the campaigns are over time, and how effective they are with different flightings makes a difference in how we can spend our budget smartly."

Analyst, advanced analytics, media agency

TEI FRAMEWORK AND METHODOLOGY

From the information provided in the interview,
Forrester constructed a Total Economic Impact™
framework for those organizations considering an investment in Foursquare Attribution.

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 Foursquare Attribution can have on an organization.

DISCLOSURES

Readers should be aware of the following:

This study is commissioned by Foursquare 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 study to determine the appropriateness of an investment in Foursquare Attribution.

Foursquare 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.

Foursquare provided the agency's name for the interview but did not participate in the interview.



DUE DILIGENCE

Interviewed Foursquare stakeholders and Forrester analysts to gather data relative to Attribution.



INTERVIEW

Interviewed the representatives of an agency using Foursquare Attribution on behalf of a brand 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 interviewees.



CASE STUDY

Employed four fundamental elements of TEI in modeling the investment impact: benefits, costs, flexibility, and risks. Given the increasing sophistication of ROI analyses related to IT investments, Forrester's TEI methodology provides a complete picture of the total economic impact of purchase decisions. Please see Appendix A for additional information on the TEI methodology.

The Foursquare Attribution Customer Journey

Drivers leading to the Foursquare Attribution investment

BRAND ORGANIZATION

Forrester interviewed three representatives at a media agency with experience using Foursquare Attribution about the impact of the platform on a brand. The brand has the following characteristics:

- Retail convenience store company headquartered and operating in the United States.
- After using Foursquare Attribution in a limited capacity for many years, the brand switches strategy to use Foursquare Attribution to measure all digital activity, excluding two partners with data use restrictions.
- Annual revenues of \$18 billion.
- 11,800 store locations.
- Has an advertising budget of approximately \$100 million for all paid channels, including digital media and select channels that are not measured with Foursquare Attribution.

KEY CHALLENGES

Before expanding its use of Foursquare Attribution across all digital advertising partners, the brand discretely applied Foursquare Attribution in single-partner analyses. Campaign success was measured based on traditional advertising metrics, such as impressions, which validated whether the channel delivered to viewers and how the campaign efforts generally correlated with the brand's in-store trip volumes.

The agency interviewees noted how they struggled with common challenges, including:

 Campaign impact was not measured holistically across partners. With reporting on each partner's campaign performance siloed to individual analyses, the agency struggled to

- quantify, compare, and optimize towards the partners and advertising tactics that were driving incremental lift. Incremental store visits (i.e., visits that would not have occurred if not for a consumer seeing an ad) were double-counted across the single-partner reports, making the data an unreliable source upon which to base campaign strategy.
- Decreased foot traffic to the brand's stores
 during the COVID-19 pandemic. Improving instore visits became an imperative as consumer
 behavior shifted. The associate media director of
 audience activation at the agency said: "Trips
 became a larger focus for the business,
 especially during the pandemic. [The brand]
 wanted to recapture the trips volume they had
 lost from the changes in everybody's lives in
 March 2020." Without accurate data on
 incremental store visits and partner performance,
 the brand and agency were unequipped to
 effectively address the new business imperatives.

"Looking at partners in a vacuum, it was hard to understand which partner really was better, especially because the same trip could be attributed to two different partners but they're in their own study versus one comprehensive study."

Associate media director of audience activation, media agency

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INVESTMENT OBJECTIVES

On behalf of the brand, the agency searched for a solution that could:

- campaign performance across the brand's partners. The agency recognized an opportunity to consolidate the siloed analytics that were previously provided as a value-add into multipartner studies. With consolidated reporting, incremental visits would no longer be duplicated, providing the agency with accurate data on which partners and creative strategies were driving behavioral lift with target audiences and foot traffic to the brand's stores.
- Improve trip volume through leveraging granular inflight data on the campaigns. The interviewees from the agency noted that recapturing lost trip volume was a key imperative that drove the expanded use of Foursquare Attribution. The agency aimed to leverage Foursquare's comprehensive attribution data on campaign metrics, such as impressions, visits, cost per visit, and behavioral lift with target audiences to enhance their campaign strategies and ad-spend allocation. The associate media director of audience activation at the agency said: "We were hoping to achieve an understanding of what at a high level was working, and at the partner level and creative level. We wanted to know what was working versus what wasn't."

WHY FOURSQUARE ATTRIBUTION?

The limitations of the previous approach to attribution measurement required the brand and agency to look for a more sophisticated solution. They evaluated other attribution solutions, but chose to expand the use of Foursquare Attribution for several reasons:

- Foursquare has a high volume of persistent devices for data collection. The device volume used to collect data was a criterion in the evaluation process. The agency interviewees noted that Foursquare had a greater number of devices than other solutions they evaluated. The associate media director of audience activation explained, "We looked at the number of individual devices within their panel that they're using to collect data because the larger the number, the more stable the model is going to be."
 Additionally, use of persistent and "always-on" devices stood out favorably in comparison to one competing solution that uses intermittent signals.
- Decision-makers considered Foursquare's attribution methodology to be more dependable than other solutions. Agency interviewees also noted that Foursquare's methodology for attribution stood out from other solutions. Foursquare's methodology normalizes campaign data to be representative of total populations and corrects for biases. This approach stood out during evaluation of a competitor the agency believes under-attributes.
- provider. Many of the other solutions evaluated by the brand and agency provide media inventories in addition to attribution measurement, which creates concerns around being pushed into utilizing the media services and those services being measured in a favorable manner. Conversely, Foursquare provides a neutral measurement solution unbiased of media, which increased the decision-makers' trust in the partnership.

USE CASE

The brand and agency use Foursquare Attribution to monitor digital activity across all of its partners, except for a select few with data use restrictions. The brand executes up to eight advertising campaigns per year, each spanning six-week promotional periods and the launch of 30 creatives. The brand works with 11 media partners to serve advertisements to audiences during the campaigns and measures the results via consolidated multipartner analysis provided by Foursquare Attribution.

For this use case, Forrester has modeled benefits and costs over three years.

Key Assumptions

- 90% in-store sales conversion rate
- Digital media makes up to 61% of the media mix
- 3% of the digital media budget is dedicated to attribution and measurement

Foursquare Attribution really helps us optimize on a more granular level. Foursquare allows us to pull levers to help optimize the media, which ultimately funnels up to business impact. So, it helps us see things that we aren't otherwise able to see.

Associate director of analytics, media agency

Analysis Of Benefits

Quantified benefit data

Total Benefits							
Ref.	Benefit	Year 1	Year 2	Year 3	Total	Present Value	
Atr	Brand profit from improved ad spend efficiency	\$269,790	\$269,790	\$269,790	\$809,369	\$670,927	
	Total benefits (risk-adjusted)	\$269,790	\$269,790	\$269,790	\$809,369	\$670,927	

BRAND PROFIT FROM IMPROVED AD SPEND EFFICIENCY

Evidence and data. The agency interviewees noted that the holistic view across the advertising partners' performances and granular metrics provided by Foursquare Attribution were key to forming insights, enabling the agency to better optimize spend and act on strategies that ultimately drove lift in incremental visits. With the ability to look comparatively across partners, creatives, and tactics, the agency's media and analytics teams could more accurately correlate ad spend to in-store visits and optimize towards better-performing partners and strategies.

The associate media director of audience activation described: "Within our performance media, [two partners] are strong performers in driving incremental lift and efficient cost per store visits. We've optimized heavily into these partners based on Foursquare's results. We've pulled money from places that are underperforming and are putting them in those partners."

Expanding the campaign analysis from singular partner analyses to one comprehensive readout across partners reduced the duplication of incremental store visits previously reported. This enabled the agency to provide a more accurate analysis on which partners and tactics drove incremental visits to the brand's stores and allocate spend accordingly.

With Foursquare Attribution data, the agency made more informed decisions on where to focus advertising efforts, which led to higher behavioral uplift that drove incremental foot traffic to the brand's stores. The brand experienced an 80% increase in incremental store visits driven by each ad dollar spent in comparison to the prior environment.

"Before [Foursquare], incremental store visits were double-counted because everybody was in their own test tube. Now, we have a more accurate read of what drives incrementality, which helps us optimize spend across different partners."

Associate media director of audience activation, media agency

Modeling and assumptions. Forrester assumes the following for the brand:

 In the prior environment, the ad spend monitored across single-partner analysis totaled \$5,700,000 each year. The brand measured 982,416 incremental store visits driven by the advertising spend monitored by Foursquare Attribution.

- In the current environment, the ad spend monitored by Foursquare Attribution totals \$24,401,000. The brand experiences 7,587,265 incremental store visits with campaign reporting consolidated across partners.
- The rate of store visitors converting to a sale is 90%, with an average basket size of \$7.50.
- The brand has a 6.50% profit margin.
- 20% of the brand profit derived from improved ad spend efficiency is attributed to Foursquare. This attribution takes into consideration other factors that contribute to a consumer's decision to make a purchase once they are in a store, such as pricing, product availability, and the influence of

other advertising or marketing efforts that shape a consumer's awareness, perceptions, and preferences for specific products or brands.

Risks. Forrester recognizes that these results may not be representative of all experiences, and the benefit will vary depending on:

- The efficiency of ad spend prior to using Foursquare Attribution.
- The average conversion rate and basket size of store visitors.
- · The profit margin.

Results. To account for these risks, Forrester adjusted this benefit downward by 10%, yielding a three-year, risk-adjusted total PV (discounted at 10%) of \$670,900.

Metric	Source	Year 1	Year 2	Year 3
Brand ad spend monitored discretely in prior environment	Foursquare Data	\$5,700,000	\$5,700,000	\$5,700,000
Incremental visits in prior environment	Foursquare Data	982,416	982,416	982,416
Incremental visit per ad dollar spent in prior environment	A2/A1	0.1724	0.1724	0.1724
Ad spend monitored in current environment	Foursquare Data	\$24,401,000	\$24,401,000	\$24,401,000
Incremental visits in current environment	Foursquare Data	7,587,265	7,587,265	7,587,265
Incremental visit per ad dollar spent in current environment	A5/A4	0.3109	0.3109	0.3109
Additional incremental visits per dollar spent with Attribution driven behavioral lift (rounded)	A6-A3	0.14	0.14	0.14
Conversion rate of store visitor	Assumption	90%	90%	90%
Average basket size	Customer Financial Report	\$7.50	\$7.50	\$7.50
Profit Margin	Customer Financial Report	6.50%	6.50%	6.50%
Benefit percent attributed to Foursquare Attribution	Assumption	20%	20%	20%
Brand profit from improved ad spend efficiency	A4*A7*A8*A9* A10*A11	\$299,766	\$299,766	\$299,766
Risk adjustment	↓10%			
Brand profit from improved ad spend efficiency (risk-adjusted)		\$269,790	\$269,790	\$269,790
•	Incremental visits in prior environment Incremental visit per ad dollar spent in prior environment Ad spend monitored in current environment Incremental visits in current environment Incremental visit per ad dollar spent in current environment Additional incremental visits per dollar spent with Attribution driven behavioral lift (rounded) Conversion rate of store visitor Average basket size Profit Margin Benefit percent attributed to Foursquare Attribution Brand profit from improved ad spend efficiency Risk adjustment Brand profit from improved ad spend efficiency (risk-	Incremental visits in prior environment Incremental visit per ad dollar spent in prior environment A2/A1 Ad spend monitored in current environment Foursquare Data Incremental visits in current environment Foursquare Data Incremental visits in current environment Foursquare Data Incremental visit per ad dollar spent in current environment A5/A4 Additional incremental visits per dollar spent with Attribution driven behavioral lift (rounded) Conversion rate of store visitor Average basket size Profit Margin Benefit percent attributed to Foursquare Attribution Brand profit from improved ad spend efficiency A4*A7*A8*A9* A10*A11 Risk adjustment ↓10% Brand profit from improved ad spend efficiency (risk-	Incremental visits in prior environment Foursquare Data 982,416 Incremental visit per ad dollar spent in prior environment Ad spend monitored in current environment Foursquare Data \$24,401,000 Incremental visits in current environment Foursquare Data 7,587,265 Incremental visit per ad dollar spent in current environment A5/A4 0.3109 Additional incremental visits per dollar spent with Attribution driven behavioral lift (rounded) A6-A3 0.14 Conversion rate of store visitor Assumption 90% Average basket size Customer Financial Report Report Customer Financial Report Report A3*A7*A8*A9* A10*A11 \$299,766 Risk adjustment \$10% Brand profit from improved ad spend efficiency (risk-	Incremental visits in prior environment Foursquare Data 982,416 982,416 Incremental visit per ad dollar spent in prior environment Ad spend monitored in current environment Foursquare Data \$24,401,000 \$24,401,000 Incremental visits in current environment Foursquare Data 7,587,265 7,587,265 Incremental visit per ad dollar spent in current environment A5/A4 0.3109 0.3109 Additional incremental visits per dollar spent with Attribution driven behavioral lift (rounded) A6-A3 0.14 0.14 Conversion rate of store visitor Assumption 90% 90% Average basket size Customer Financial Report Report Customer Financial Report Report Benefit percent attributed to Foursquare Attribution Assumption Assumption 20% 8299,766 Risk adjustment J10%

UNQUANTIFIED BENEFITS

Additional benefits the brand experienced but that agency interviewees were not able to quantify include:

- Cost per store visit optimization. Foursquare Attribution helped the agency leverage more accurate data on the brand's cost per store visit for each ad partner. Deduplication of incremental store visit reporting enabled the agency to analyze cost per store visit for each partner more effectively. The agency reallocated the brand's advertising spend away from underperforming partners to more efficient and/or effective channels to increase visits to the brand's stores.
- Efficiency gains for the brand's agency resources. Using Foursquare Attribution freed up agency time around mundane reporting, data gathering, and analytics. By reducing time and effort associated with measuring, analyzing, and reporting on attribution data, the brand's agency can shift its focus to other creative and strategic activities around campaign management.

FLEXIBILITY

The value of flexibility is unique to each customer. There are multiple scenarios in which a customer might implement Foursquare Attribution and later realize additional uses and business opportunities, including:

- The ability to test and evaluate emerging media channels. As the digital media landscape continues to evolve, Foursquare Attribution offers the opportunity to experiment with emerging media channels and partners and benchmark them against existing strategies. Through evaluating new strategies using Foursquare's methodology, brands can reduce the risk of overinvesting in an emerging channel or not taking advantage of them earlier.
- The opportunity to secure additional advertising budget through demonstrating

- media value. Foursquare's Attribution data can also serve as a tool to tangibly demonstrate the business impact and value of media investment. Its reporting on incremental store traffic and its downstream revenue impact can support the allocation of larger marketing and advertising budgets in the future.
- placement. Foursquare's Attribution data can also be correlated with customer transaction data to improve in-store experiences and product placement. By looking at purchase behavior and foot-traffic volumes, brands can identify and improve on customer experience issues within store locations. Similarly, through conducting a market basket analysis for store visitors driven by advertising campaigns, they can better understand customer preferences and identify improvements to product placement, promotions, and bundling opportunities to increase sales.
- Unlock more insights with data. Organizations
 can use Foursquare analysis in numerous ways,
 such as creating brand-specific benchmarks,
 tracking shifting trends, and identifying new
 market opportunities.

Flexibility would also be quantified when evaluated as part of a specific project (described in more detail in Appendix A).

Analysis Of Costs

Quantified cost data

Total	Total Costs								
Ref.	Cost	Initial	Year 1	Year 2	Year 3	Total	Present Value		
Btr	Foursquare Attribution fees indirectly paid by brand	\$0	\$14,364	\$14,868	\$15,372	\$44,604	\$36,895		
	Total costs (risk- adjusted)	\$0	\$14,364	\$14,868	\$15,372	\$44,604	\$36,895		

FOURSQUARE ATTRIBUTION FEES INDIRECTLY PAID BY BRAND

Evidence and data. The only costs the brand incurred were Foursquare Attribution fees, which are passed indirectly from the agency to the brand as measurement fees built into the agency's contract. Foursquare's fees are based on the cost per mille (CPM).

Agency interviewees said most of the fees are funded by advertising partners. The measurement costs passed to the brand by the agency come out of the brand's overall media budget for both digital media and other advertising channels not measured with Foursquare Attribution.

Modeling and assumptions. Forrester calculated the Foursquare Attribution fees incurred by the brand based on the agency interviews. To capture the costs for the brand, Forrester assumes the following:

- The brand's total media budget is \$100 million.
- Out of the media budget, digital media makes up 57% in year 1, 59% in Year 2, and 61% in Year 3.
- 3% of the digital media budget is dedicated to attribution and measurement, of which advertising partners fund 90%.

- The agency passes through 7% of the remaining attribution and measurement fees to the brand, comprised of 3% for the Foursquare Attribution fees and an additional 4% as a markup for advertising strategy and measurement services that leverage Foursquare's data.
- Pricing may vary. Contact Foursquare for additional details.

Risks. Forrester recognizes that these results may not be representative of all experiences, and the costs will vary depending on.

- The number of campaigns and adverting partners measured with Foursquare Attribution.
- The portion of Foursquare Attribution fees that advertising partners cover.
- The portion of Foursquare Attribution fees that the agency covers, and any additional costs or markups charged by the agency for services that utilize Foursquare Attribution data, as built into the agency's annual contract.

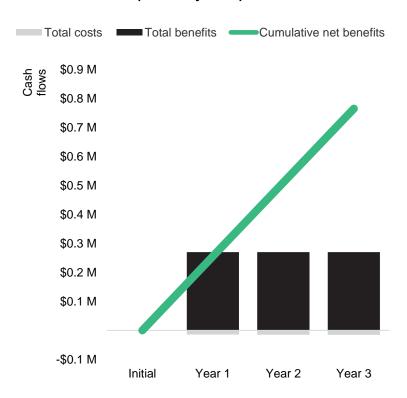
Results. To account for these risks, Forrester adjusted this cost upward by 20%, yielding a three-year, risk-adjusted total PV (discounted at 10%) of \$36,000.

Four	Foursquare Attribution Fees Indirectly Paid By Brand							
Ref.	Metric	Source	Initial	Year 1	Year 2	Year 3		
B1	Brand total media budget	Interview		\$100,000,000	\$100,000,000	\$100,000,000		
B2	Digital media as a percent of the overall media mix	Assumption		57%	59%	61%		
В3	Budget for digital media	B1*B2		\$57,000,000	\$59,000,000	\$61,000,000		
B4	Digital budget percent dedicated to attribution and measurement	Assumption		3%	3%	3%		
B5	Foursquare Attribution fees percent covered by partners	Interview		90%	90%	90%		
В6	Foursquare Attribution fees paid by agency	B3*B4*(1-B5)		\$171,000	\$177,000	\$183,000		
В7	Agency pass through and markup of Foursquare Attribution fees	Interview and assumption		7.0%	7.0%	7.0%		
Bt	Foursquare Attribution fees indirectly paid by brand	B6*B7	\$0	\$11,970	\$12,390	\$12,810		
	Risk adjustment	↑20%						
Btr	Foursquare Attribution fees indirectly paid by brand (risk-adjusted)		\$0	\$14,364	\$14,868	\$15,372		
	Three-year total: \$44,604		Т	hree-year presen	t value: \$36,895			

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 and NPV for the organization's investment.

Forrester assumes a yearly discount rate of 10% for this analysis.

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

Cash Flow Analysis (Risk-Adjusted Estimates)							
	Initial	Year 1	Year 2	Year 3	Total	Present Value	
Total costs	\$0	(\$14,364)	(\$14,868)	(\$15,372)	(\$44,604)	(\$36,895)	
Total benefits	\$0	\$269,790	\$269,790	\$269,790	\$809,369	\$670,927	
Net benefits	\$0	\$255,426	\$254,922	\$254,418	\$764,765	\$634,032	
ROI						500%+	

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 C: Endnotes

¹ Source: "Marketing Measurement's Higher Calling: Lead Your Firm To An Insights-Driven Future," Forrester Research, Inc., September 3, 2021.

² 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.

