

A Forrester Total Economic Impact™
Study Commissioned By Waze
August 2020

The Total Economic Impact™ Of Waze Ads

Cost Savings And Business Benefits
Enabled By Waze, A Digital Out-Of-Home
Advertising Platform

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ABOUT FORRESTER CONSULTING

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Executive Summary

Key Benefits



Return on ad spend (ROAS):
17:1



Increased store foot traffic:
8%



Increased conversion rate:
13%



Increased average order value:
7%

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

Waze provides a digital out-of-home advertising platform that helps its customers meet their target audience at key moments in their customer journeys. Brands with better business results prioritize in-person visits and digital out-of-home ads¹. To better understand the benefits, costs, and risks associated with this investment, Forrester interviewed six customers with experience using Waze Ads.

Prior to using Waze, the interviewed organizations had a marketing mix consisting of traditional media such as TV and print ads, along with out-of-home advertising on radio and billboards. However, organizations reported that with this previous marketing mix, they struggled to reach their target audience at key moments, desired to drive more store traffic, and were concerned with privacy regulations regarding use of consumer data for the many options for advertising.

The interviewed organizations decided to deploy Waze Ads due to its innovative solutions to reach customers, ability to provide robust measurements and data, and comfort with Waze's approach in capturing and using consumer data appropriately. This resulted in significant benefits, as detailed in this case study. With Waze Ads, organizations increased sales and profit from increased foot traffic, increased conversion rate, and increased average order value (AOV).

Forrester developed a composite organization based on data gathered from the customer interviews to reflect the total economic impact that Waze could have for an organization. The composite organization is representative of the organizations that Forrester interviewed and is used to present the aggregate financial analysis in this study. The composite is a global organization whose advertisers use out-of-home and traditional media to drive traffic to their stores. The composite starts with an initial pilot with Waze of 100 stores, and then expand and broaden their adoption to 2,000 stores by Year 3 as it continues to see returns with Waze's platform. **With Waze, customers see a ROAS of 17:1 each year (i.e., \$17 of revenue per \$1 spent, each year).**

All values are reported in risk-adjusted three-year present value (PV) unless otherwise indicated.

Key Financial Findings

Quantified benefits. The following benefits reflect the financial analysis associated with the composite organization.

- › **Increased foot traffic by 8%, resulting in \$2.3 million in profit.** With Pins, Search, and Takeovers, and ad activation based on both radius and frequency, Waze ads are effective in reaching the interviewed companies' target audiences closer to the point of decision making, making it more likely consumers will decide to navigate to their store locations.



ROAS
17:1



ROI
62%



NPV
\$1.1 million

“Waze lives in its own segment. No one else does quite what Waze does.”
Senior director, retail industry

- › **Increased conversion rate by 13%, resulting in \$301,259 in profit.** Interviewed organizations noted that consumers directed to stores from Waze ads likely have a higher conversion rate than average, given the ability to target key demographics at key points in time.
- › **Increased AOV by 7%, resulting in \$183,305 in profit.** Interviewed organizations noted that consumers directed to stores from Waze ads may have a higher average order value (AOV) in addition to a higher conversion rate compared to average, given the ability to target key demographics at key points in time.

Unquantified benefits.

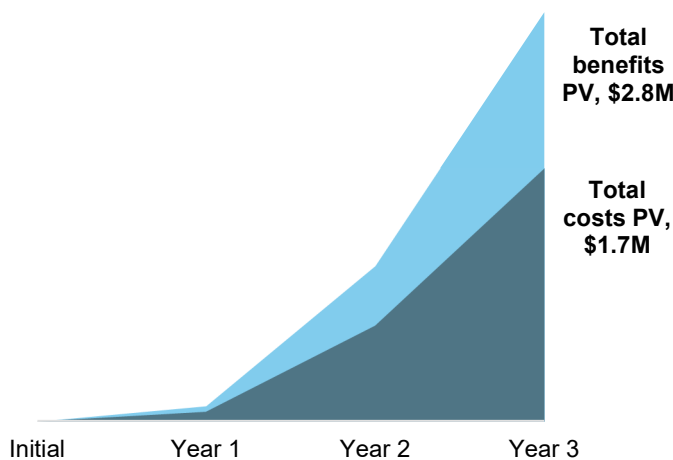
- › **Improved customer lifetime value and brand loyalty.** In addition to the quantifiable benefits above, Forrester expects there to be a corresponding impact on customer lifetime value and brand loyalty due to the increases in store visits, conversion rate, and AOV from partnering with Waze.

Costs. The following costs reflect the financial analysis associated with the composite organization.

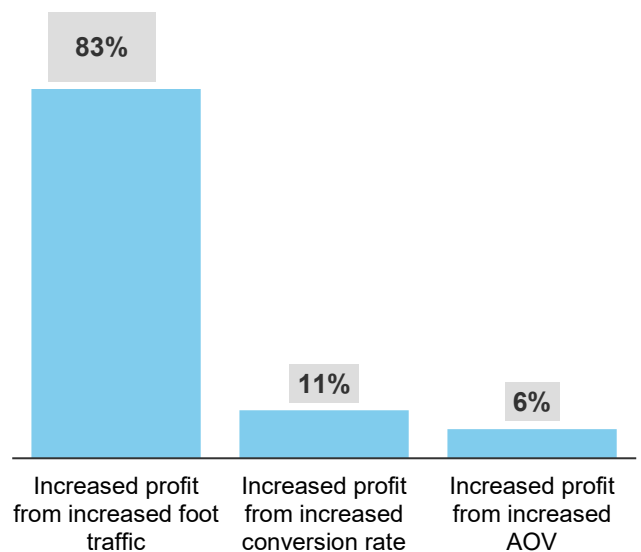
- › **Ad spend and internal labor costs of \$1.7 million.** Interviewed organizations noted costs associated with ad spend on the Waze platform, associated professional services, and measurement partners, along with internal labor to manage Waze campaigns. However, they specified that internal labor and professional service effort did not represent an incremental effort to their normal operation and activities.

Forrester’s interviews with six existing customers and subsequent financial analysis found that a composite organization experienced benefits of \$2.8 million over three years versus ad spending and internal labor costs of \$1.7 million, adding up to a net present value (NPV) of \$1.1 million, a ROAS of 17:1, and an ROI of 62%.

Financial Summary



(Three-Year)



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

TEI Framework And Methodology

From the information provided in the interviews, Forrester has constructed a Total Economic Impact™ (TEI) framework for those organizations considering implementing Waze Ads.

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 Waze Ads can have on an organization:



DUE DILIGENCE

Interviewed Waze stakeholders and Forrester analysts to gather data relative to Ads.



CUSTOMER INTERVIEWS

Interviewed six organizations using Ads to obtain data with respect to costs, benefits, and risks.



COMPOSITE ORGANIZATION

Designed a composite organization based on characteristics of the interviewed organizations.



FINANCIAL MODEL FRAMEWORK

Constructed a financial model representative of the interviews using the TEI methodology and risk-adjusted the financial model based on issues and concerns of the interviewed organizations.



CASE STUDY

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

DISCLOSURES

Readers should be aware of the following:

This study is commissioned by Waze 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 Waze Ads.

Waze 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.

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

The Waze Ads Customer Journey

BEFORE AND AFTER THE WAZE INVESTMENT

Interviewed Organizations

For this study, Forrester conducted six interviews with Waze Ads customers to better understand the typical deployment and benefits companies see from partnering with Waze. Interviewed customers include the following:

INDUSTRY	REGION	INTERVIEWEE	NUMBER OF STORES USING WAZE	TOTAL STORES
Retail	North America	Senior director	1000	1000
Retail	North America	Senior director	6,500	10,000
Retail	North America	Senior manager	1,000	2,000
Retail	Global	Head of US marketing	5,000	10,000+
Quick-service restaurant (QSR)	Latin America	Communications manager	500	500
QSR	North America	Manager	14,000	20,000+

Key Challenges Before Waze Ads

Before the investment in Waze, interviewees described the following challenges with their previous marketing mix:

- › **Struggle to reach target audience at key moments.** Interviewed companies asserted that they are trying to reach their customers at key moments to impact foot traffic to stores, and that “out and about” customers are the key target segment. Before partnering with Waze, however, they struggled with reaching this target audience at those key decision points, and they weren’t alone; 78% of marketers say their firms struggle to reach customers at influential momentsⁱⁱ.
- › **Desire to drive more store traffic.** Companies noted that increased store traffic is a key goal, as it improves brand loyalty and drives increased sales. Improvements in this area have an impact on overall profitability and customer lifetime value.
- › **Concern with privacy regulations regarding use of consumer data for advertising.** Privacy regulations have changed the way that marketers use data for advertising. Inappropriate use of consumer data could lead to significant breaches of trust and impact on brand equity.

“Studies show that customers make decisions to visit a QSR within minutes before doing so, and so we are trying to get closer to the point of decision-making. Waze is perfect for this.”

Manager, QSR industry

“You have a huge gap if you’re a brick-and-mortar store and you’re not using Waze.”

Senior director, retail industry

Why Waze?

Interviewed organizations stated the following reasons on why they chose Waze Ads to address their challenges:

- › **Innovative solutions.** Companies noted that Waze provides an innovative solution to reaching their customers, and has a unique inventory they couldn't purchase before. Waze is able to reach those "out and about" customers closer to the point of decision-making; event-driven and navigable ads allow consumers to receive turn-by-turn directions directly to store locations.

Partnering with Waze also provides a "halo effect" of innovation for more established firms that may not otherwise have a reputation for innovation.

- › **Provides robust measurements and data.** Interviewees noted that Waze provides key privacy-compliant data not accessible from many other platforms: better data such as traffic and location information; more segmented data such as specific age ranges instead of categories like "millennials"; and accessible KPIs showing the impact that Waze ads are having (such as store visits and sales lift).
- › **Comfortable with Waze's approach to capturing and using consumer data appropriately.** Given that Waze is a navigation app and allows consumers to "opt-in" for capturing data, Waze provides "contextual privacy" in using consumer personal data within a consensual, mutually agreed-upon context, and mutually agreed-upon purpose.

Key Results With Waze

The unique value proposition for Waze led to several benefits for interviewees:

- › **Increased sales and profit from increased foot traffic.** With Pins, Search, and Takeovers, and ad activation based on both radius and frequency, Waze ads are effective in reaching the interviewed companies' target audiences closer to the point of decision making, making it more likely consumers will decide to navigate to their stores.
- › **Increased sales and profit from increased conversion rate.** Interviewed organizations pointed out that consumers directed to stores from Waze ads may have a higher conversion rate than average, given the ability to target key demographics at key points in time.
- › **Increased sales and profit from increased average order value.** Interviewed organizations stated that consumers directed to stores from Waze ads may have a higher average order value in addition to a higher conversion rate compared to average, given the ability to target key demographics at key points in time.
- › **Improved customer lifetime value and brand loyalty.** In addition to the quantifiable benefits above, Forrester expects there to be a corresponding impact on customer lifetime value and brand loyalty due to the increases in store visits, conversion rate, and average order value from partnering with Waze.

"Waze has shown us the importance of location-based marketing. We weren't even thinking about this before."

Senior director, retail industry

"With Waze, there is clear, concise, and consistent measurement, and strong communication between the Waze team and our analytics team."

Senior manager, retail industry

"We take data privacy very seriously, and we're comfortable that Waze is doing this the right way."

Manager, QSR industry

"Waze lives in its own segment. No one else does quite what Waze does."

Senior director, retail industry

"Waze allows us to stand out, especially in a market where many customers are otherwise just looking for the lowest fuel cost."

Head of US marketing, retail (convenience store) industry

"With Waze, the numbers are so good that we often find ourselves validating them because they don't seem real."

Head of US marketing, retail (convenience store) industry

Composite Organization

Forrester constructed a TEI framework, a composite company, and an associated ROI analysis to evaluate the Total Economic Impact of Waze. The composite organization is representative of the six interviewed Waze customer companies and is used to present the aggregate financial analysis. Details of the composite organization:

- › Global organization whose advertisers use out-of-home and traditional media to drive traffic to its stores.
 - Before Waze, out-of-home advertising was limited to radio and billboards, along with traditional media such as TV and print ads.
- › Waze partnership includes day-to-day marketing campaigns, Pins, Takeovers, Search, and ad activation based on both radius and frequency.
- › 100 stores are using Waze in Year 1 as a pilot; this increases to 1,000 and 2,000 stores in Years 2 and 3, respectively. The composite expands and broadens its adoption each year as it continues to see returns with Waze's platform.

“When someone is driving home and starting to think about mealtime, we have an opportunity to reach people in that moment, convince them to go left instead of right, and join us at one of our locations.”

Manager, QSR industry



Key assumptions

- Global organization
- Pins, Takeovers, Search
- Ad radius and frequency
- 2,000 stores using Waze by Year 3

Analysis Of Benefits

QUANTIFIED BENEFIT DATA AS APPLIED TO THE COMPOSITE

Total Benefits						
REF.	BENEFIT	YEAR 1	YEAR 2	YEAR 3	TOTAL	PRESENT VALUE
Atr	Increased profit from increased foot traffic	\$95,760	\$957,600	\$1,915,200	\$2,968,560	\$2,317,378
Btr	Increased profit from increased conversion rate	\$12,449	\$124,488	\$248,976	\$385,913	\$301,259
Ctr	Increased profit from increased AOV	\$7,575	\$75,746	\$151,492	\$234,813	\$183,305
Total benefits (risk-adjusted)		\$115,783	\$1,157,834	\$2,315,668	\$3,589,286	\$2,801,942

Benefit 1: Increased Profit From Increased Foot Traffic

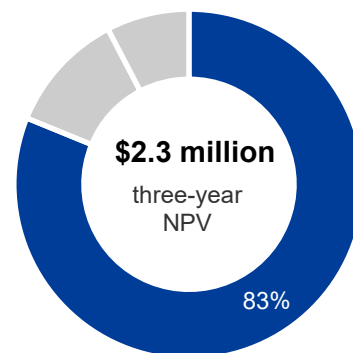
Interviewed organizations noted that Waze was very effective in driving increased foot traffic to brick and mortar stores, for a number of reasons:

- › With Pins, Search, and Takeovers, as well as ad activation based on both radius and frequency, Waze ads are effective in reaching the interviewed companies' target audiences closer to the point of decision making, making it more likely consumers will decide to navigate to their stores.
- › Waze takes the burden off of the consumer in acting on an advertisement they're interested in. For example, with billboard advertisements consumers often find themselves wondering which exit they need to take and what direction off the exit they're supposed to turn. Waze provides that actionable information directly in their navigation app.
- › Waze has access to better data and unique, more segmented inventory (e.g., specific age ranges instead of just "millennials").

Based on the customer interviews, Forrester modeled the financial impact for the composite organization with the following estimates:

- › 100 stores are initially partnering with Waze, which ramps up to 1,000 and 2,000 stores in Years 2 and 3, respectively, as the composite organization continues to see returns with Waze's platform.
- › Before Waze, stores saw on average 12,000 customer visits per year. This increased by 8% after partnering with Waze.
- › Each store has a baseline conversion rate of 70% and average order value of \$15 before Waze.
 - Note that conversion rate and average order value can vary significantly, especially between industries like retail and QSR. Readers should use this financial model as a framework in analyzing potential impact for their organizations.
 - The impact of Waze on conversion rate and average order value are quantified in Benefit 2: Increased Profit From Increased Conversion Rate and Benefit 3: Increased Profit From Increased Average Order Value.

The table above shows the total of all benefits across the areas listed below, as well as present values (PVs) discounted at 10%. Over three years, the composite organization expects risk-adjusted total benefits to have a PV of \$2.8 million.



Increased profit from increased foot traffic: 83% of total benefits

- › A profit margin of 10% is used. Note that profit margin can vary significantly, especially between industries.

This benefit can vary due to uncertainty related to:

- › Baseline foot traffic.
- › Increase in foot traffic with Waze.
- › Profit margin.

To account for these risks, Forrester adjusted this benefit downward by 5%, yielding an annual benefit ranging from \$95,760 to \$1.9 million, with a three-year risk-adjusted total PV of \$2.3 million.

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.

Benefit 1: Increased Profit From Increased Foot Traffic: Calculation Table

REF.	METRIC	CALCULATION	YEAR 1	YEAR 2	YEAR 3
A1	Number of stores using Waze	Composite organization	100	1,000	2,000
A2	Baseline monthly foot traffic per store (before Waze)	Composite organization	1,000	1,000	1,000
A3	Baseline annual foot traffic per store (before Waze)	A2*12	12,000	12,000	12,000
A4	Increase in foot traffic with Waze	Composite organization	8%	8%	8%
A5	Incremental foot traffic per store with Waze	A3*A4	960	960	960
A6	Subtotal: Annual incremental foot traffic with Waze	A1*A5	96,000	960,000	1,920,000
A7	Baseline conversion rate (before Waze)	Composite organization	70%	70%	70%
A8	Baseline AOV (before Waze)	Composite organization	\$15	\$15	\$15
A9	Subtotal: Increased sales from increased foot traffic	A6*A7*A8	\$1,008,000	\$10,080,000	\$20,160,000
A10	Profit margin	Composite organization	10%	10%	10%
At	Increased profit from increased foot traffic	A9*A10	\$100,800	\$1,008,000	\$2,016,000
	Risk adjustment	↓5%			
Atr	Increased profit from increased foot traffic (risk-adjusted)		\$95,760	\$957,600	\$1,915,200

Benefit 2: Increased Profit From Increased Conversion Rate

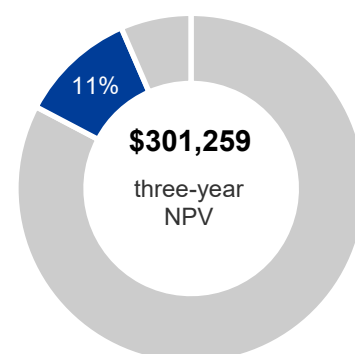
Interviewed organizations specified that consumers directed to stores from Waze ads may have a higher conversion rate than average, given the ability to target key demographics at key points in time.

In addition to the details modeled in Benefit 1: Increased Profit From Increased Foot Traffic, Forrester modeled a 13% increase on conversion rate for foot traffic driven by Waze. On a baseline conversion rate of 70%, this results in an effective conversion rate of approximately 79%.

This benefit can vary due to uncertainty related to:

- › Incremental foot traffic driven by Waze.
- › Increased conversion rate.
- › Profit margin.

To account for these risks, Forrester adjusted this benefit downward by 5%, yielding an additional annual benefit ranging from \$12,449 to \$248,976, with a three-year risk-adjusted total PV of \$301,259.



Increased profit from increased conversion rate: 11% of total benefits

Benefit 2: Increased Profit From Increased Conversion Rate: Calculation Table

REF.	METRIC	CALCULATION	YEAR 1	YEAR 2	YEAR 3
B1	Annual incremental foot traffic with Waze	A6	96,000	960,000	1,920,000
B2	Baseline conversion rate (before Waze)	A7	70%	70%	70%
B3	Subtotal: Baseline number of sales from increased foot traffic	B1*B2	67,200	672,000	1,344,000
B4	Increased conversion rate for Waze foot traffic	Composite organization	13%	13%	13%
B5	Subtotal: Increased number of sales from increased conversion rate	B3*B4	8,736	87,360	174,720
B6	Baseline AOV (before Waze)	A8	\$15	\$15	\$15
B7	Subtotal: Increased sales from increased conversion rate	B5*B6	\$131,040	\$1,310,400	\$2,620,800
B8	Profit margin	A10	10%	10%	10%
Bt	Increased profit from increased conversion rate	B7*B8	\$13,104	\$131,040	\$262,080
	Risk adjustment	↓5%			
Btr	Increased profit from increased conversion rate (risk-adjusted)		\$12,449	\$124,488	\$248,976

Benefit 3: Increased Profit From Increased Average Order Value

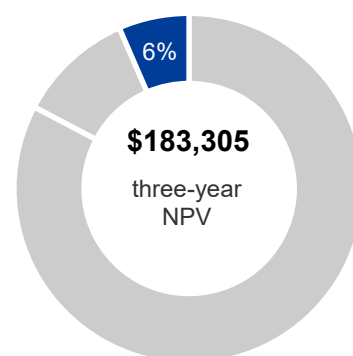
Interviewed organizations noted that consumers directed to stores from Waze ads may have a higher average order value in addition to a higher conversion rate compared to average, given the ability to target key demographics at key points in time.

In addition to the details modeled in Benefit 1: Increased Profit From Increased Foot Traffic and Benefit 2: Increased Profit From Increased Conversion Rate, Forrester modeled an 7% increase in average order value. On a baseline average order value of \$15, this results in an effective average order value of approximately \$16.05.

This benefit can vary due to uncertainty related to:

- > Incremental sales driven by Waze, from increased foot traffic and increased conversion rate.
- > Increased average order value.
- > Profit margin.

To account for these risks, Forrester adjusted this benefit downward by 5%, yielding an annual benefit ranging from \$7,575 to \$151,492, with a three-year risk-adjusted total PV of \$183,305.



Increased profit from increased AOV: 6% of total benefits

Increased Profit From Increased AOV: Calculation Table

REF.	METRIC	CALCULATION	YEAR 1	YEAR 2	YEAR 3
C1	Total incremental number of sales from increased foot traffic and conversion rate with Waze	B3+B5	75,936	759,360	1,518,720
C2	Baseline AOV (before Waze)	A8	\$15	\$15	\$15
C3	Increase in AOV for Waze foot traffic	Composite organization	7%	7%	7%
C4	Subtotal: Increased sales from increased AOV	C1*C2*C3	\$79,733	\$797,328	\$1,594,656
C5	Profit margin	A10	10%	10%	10%
Ct	Increased profit from increased AOV	C4*C5	\$7,973	\$79,733	\$159,466
	Risk adjustment	↓5%			
Ctr	Increased profit from increased AOV (risk-adjusted)		\$7,575	\$75,746	\$151,492

Unquantified Benefit: Improved Customer Lifetime Value And Brand Loyalty

In addition to the quantifiable benefits above, Forrester expects there to be a corresponding impact on customer lifetime value and brand loyalty due to the increases in store visits, conversion rate, and average order value from partnering with Waze. This benefit is unquantified in this study, as interviewed organizations noted that it's too early still to track the impact on customer lifetime value and brand loyalty.



Improved customer lifetime value and brand loyalty

Analysis Of Costs

QUANTIFIED COST DATA AS APPLIED TO THE COMPOSITE

Total Costs							
REF.	COST	INITIAL	YEAR 1	YEAR 2	YEAR 3	TOTAL	PRESENT VALUE
Dtr	Ad spend and internal labor	\$0	\$71,392	\$713,920	\$1,427,840	\$2,213,152	\$1,727,676
	Total costs (risk-adjusted)	\$0	\$71,392	\$713,920	\$1,427,840	\$2,213,152	\$1,727,676

Costs: Ad Spend And Internal Labor

Interviewed organizations articulated costs associated with ad spend on the Waze platform, associated professional services, and measurement partners, along with internal labor to manage Waze campaigns. However, they relayed that internal labor and professional service effort did not represent an incremental effort to their normal operation and activities.

Based on the customer interviews, Forrester estimates for the composite organization:

- › Ad spend scaling from \$60,000 in Year 1 to \$1.2 million in Year 3.
- › Internal labor hours managing Waze campaigns specifically scaling from 1 hour/week in Year 1 to 20 hours/week in Year 3 (across all Waze-related campaigns and stores).
- › Fully burdened internal labor rate of \$40/hour.

This cost can vary due to uncertainty related to:

- › Ad spend.
- › Internal labor and internal labor rate.

To account for these risks, Forrester adjusted this cost upward by 15%, yielding an annual cost ranging from \$71,392 to \$1.4 million, with a three-year risk-adjusted total PV of \$1.7 million.

The table above shows the total of all costs across the areas listed below, as well as present values (PVs) discounted at 10%. Over three years, the composite organization expects risk-adjusted total costs to have a PV of \$1.4 million.

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.

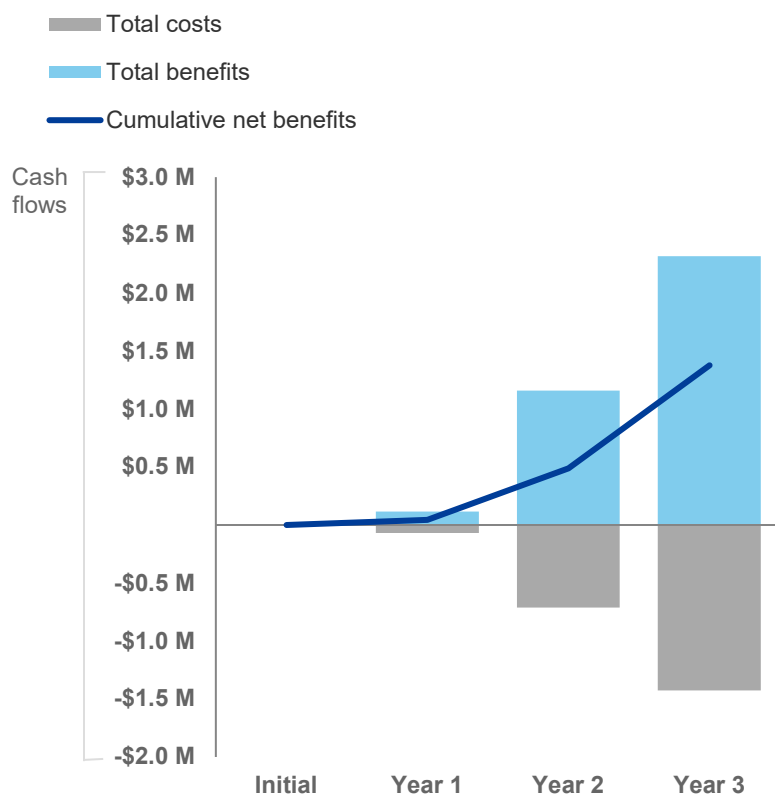
Ad Spend And Internal Labor: Calculation Table

REF.	METRIC	CALCULATION	INITIAL	YEAR 1	YEAR 2	YEAR 3
D1	Ad spend	Composite organization		\$60,000	\$600,000	\$1,200,000
D2	Internal labor hours per week on Waze marketing	Composite organization		1.0	10.0	20.0
D3	Fully burdened hourly rate	Composite organization		\$40	\$40	\$40
Dt	Ad spend and internal labor	D1+(D2*D3*52)	\$0	\$62,080	\$620,800	\$1,241,600
	Risk adjustment	↑15%				
Dtr	Ad spend and internal labor (risk-adjusted)		\$0	\$71,392	\$713,920	\$1,427,840

Financial Summary

CONSOLIDATED THREE-YEAR RISK-ADJUSTED METRICS

Cash Flow Chart (Risk-Adjusted)



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



These risk-adjusted ROI and NPV 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	(\$71,392)	(\$713,920)	(\$1,427,840)	(\$2,213,152)	(\$1,727,676)
Total benefits	\$0	\$115,783	\$1,157,834	\$2,315,668	\$3,589,286	\$2,801,942
Net benefits	\$0	\$44,391	\$443,914	\$887,828	\$1,376,134	\$1,074,266
ROAS						17:1
ROI						62%

Waze Ads: Overview

The information on the next page is provided by Waze. Forrester has not validated any claims and does not endorse Waze or its offerings.

OVERVIEW

Waze Ads

Become part of your customer's journey

Waze is the world's largest community-based traffic and navigation app. Everyday, people are driving by or searching on Waze for businesses like yours, and Waze Ads helps you become a part of their journey.

Reaching consumers in their cars represents a critical moment of the customer journey. By knowing where the consumer is, where they're going, and how they will get there, only Waze Ads offers the unique ability to be with consumers in the meaningful in-car moments before a purchase decision.

Learn more about Waze Ads at waze.com/ads

Ad formats

Pin

Like a store sign, Pins inform and remind customers that your business is on or near their route.

Takeover

The Takeover is a digital billboard. It is shown when vehicles are at a complete stop to prompt awareness and action at key moments.

Search

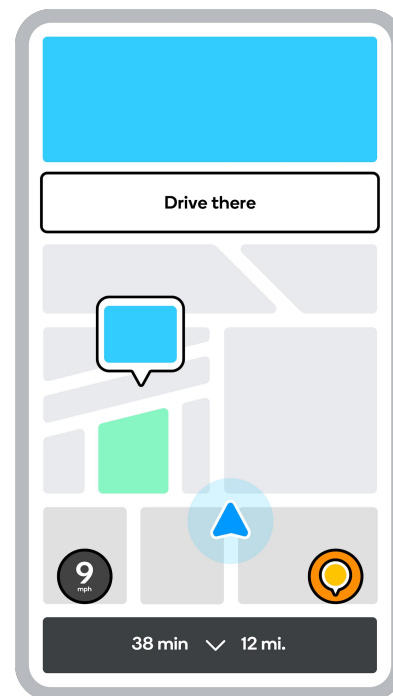
Search helps you be top of mind when customers search for businesses like yours on Waze.

Arrow

Arrows help indicate your business is nearby, helping customers increase the association between a given location and your brand.

Reach

With more than 130 million monthly active users, Waze is the world's largest community-based traffic and navigation app and generates over 1 billion navigations to businesses a year¹.



Formats and user interface seen here is for illustrative purposes only.

¹ Source: Waze internal navigation data, 2019

Appendix A: Total Economic Impact

Total Economic Impact is a methodology developed by Forrester Research that enhances a company's technology decision-making processes and assists vendors in communicating the value proposition of their products and services to clients. The TEI methodology helps companies demonstrate, justify, and realize the tangible value of IT initiatives to both senior management and other key business stakeholders.

Total Economic Impact Approach



Benefits represent the value delivered to the business by the product. The TEI methodology places equal weight on the measure of benefits and the measure of costs, allowing for a full examination of the effect of the technology on the entire organization.



Costs consider all expenses necessary to deliver the proposed value, or benefits, of the product. The cost category within TEI captures incremental costs over the existing environment for ongoing costs associated with the solution.



Flexibility represents the strategic value that can be obtained for some future additional investment building on top of the initial investment already made. Having the ability to capture that benefit has a PV that can be estimated.



Risks measure the uncertainty of benefit and cost estimates given: 1) the likelihood that estimates will meet original projections and 2) the likelihood that estimates will be tracked over time. TEI risk factors are based on "triangular distribution."

The initial investment column contains costs incurred at "time 0" or at the beginning of Year 1 that are not discounted. All other cash flows are discounted using the discount rate at the end of the year. PV calculations are calculated for each total cost and benefit estimate. NPV calculations in the summary tables are the sum of the initial investment and the discounted cash flows in each year. Sums and present value calculations of the Total Benefits, Total Costs, and Cash Flow tables may not exactly add up, as some rounding may occur.



Present value (PV)

The present or current value of (discounted) cost and benefit estimates given at an interest rate (the discount rate). The PV of costs and benefits feed into the total NPV of cash flows.



Net present value (NPV)

The present or current value of (discounted) future net cash flows given an interest rate (the discount rate). A positive project NPV normally indicates that the investment should be made, unless other projects have higher NPVs.



Return on investment (ROI)

A project's expected return in percentage terms. ROI is calculated by dividing net benefits (benefits less costs) by costs.



Discount rate

The interest rate used in cash flow analysis to take into account the time value of money. Organizations typically use discount rates between 8% and 16%.



Payback period

The breakeven point for an investment. This is the point in time at which net benefits (benefits minus costs) equal initial investment or cost.

Appendix B: Endnotes

ⁱ Source: “Intercept Consumers On The Go With Digital Out-Of-Home Advertising,” a commissioned study conducted by Forrester Consulting on behalf of Waze. April 2020.

ⁱⁱ Ibid.