



NAMOGOO

# Quantifying the Business Value of Shopping Browser Extensions

A Financial Impact Research Report  
from CJ and Namogoo

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# Contents

- 3** Introduction
- 4** Key Findings
- 5** Background on Browser Shopping Extensions
- 7** Research Design
- 9** Our Efforts to Eliminate Bias
- 10** Results: Value of Pre-Checkout Extension Pops
- 12** Results: Value of Conquesting Extensions Pops
- 13** Conclusions
- 15** Learn More
- 16** About the Authors
- 17** About CJ and Namogoo



# Introduction

Shopping browser extensions are one of the most popular consumer tools in the affiliate industry. Today, a sizable portion of affiliate revenue is credited to these products, which were developed by a myriad of publishers across various verticals to make it easy for consumers to gain product information and access offers as they shop online.

Shopping browser extensions are also among the most controversial affiliate marketing tools:

- Some believe these vehicles dramatically enhance sales/conversion rates for merchants. Believers and extension vendors say they make it far more likely that a user will convert and may even drive larger purchases.
- Critics say they only reach users that were already on-site, take credit for sales that were all but certain to happen anyway, disrupt the shopping experience, and may increase the average discount applied at checkout.

Given how important browser shopping extensions are to our clients' businesses and the uncertainty about their efficacy, CJ commissioned and conducted a massive industry study to determine

the impact of these extensions on shopper behavior. We also sought to understand how conquering extensions impact conversion rates and average order values.

We hoped to answer:

## What is the incremental impact of pre-checkout exposure when an extension “pops” on:

- Load cart (add-to-cart) rates
- Purchase conversion rates
- Average discount applied at checkout
- Average order value (AOV)

By “conquering” we mean situations when an extension delivers a message from a competitor on a retailer’s site, with the intent of diverting the visitor to the competitor’s site.

## Key Findings

Shopping extensions are extremely effective conversion assistants; they augment the user experience for their users and create significant revenue uplift for merchants.

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As an audience, extension users are more prolific shoppers, spending 185% more per shopper than customers without extensions.

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Browser extensions can serve messages to supercharge these users' purchase behavior. A pre-checkout pop increases both AOV and conversion rate, growing revenue per session by 65%.

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While extensions are often thought of as discount-focused tools, they actually only increase discount by 0.5%—and offset this by increasing AOV by the same amount.

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Shopping extensions seem to provide a level of confidence that consumers are getting the best deal—even when no discount is available, extensions increase conversion rate by 25%.

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Users exposed to Amazon's pricing via the Amazon Assistant extension spent 30% less per session, indicating that merchants should prevent consumers from seeing competitive messages wherever possible.

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In addition to creating a streamlined user experience for discount-sensitive customers, browser extensions add value in two unexpected ways:

1. They ensure that the user does not depart the merchant's site when looking for pricing or discount information.
2. They create user confidence that they're getting the best possible deal, increasing propensity to purchase without significantly increasing discount.

# Background on Browser Shopping Extensions

Browser shopping extensions are a popular and fast-growing type of consumer tool. Installing an extension gives shoppers easier access to the best information, deals, and pricing on products and services.

To use a shopping extension, the customer downloads it to their browser from an extension store or marketplace. All of the leading browsers have extension marketplaces. There are popular extension marketplaces for Chrome, Safari, Firefox, Microsoft Edge, and more.

Once added to the shopper's browser, an icon appears in the browser bar, and the extension provides access to information, discounts, cash back offers, and other value-adds as the customer visits merchant sites.

## How Shopping Extensions Work

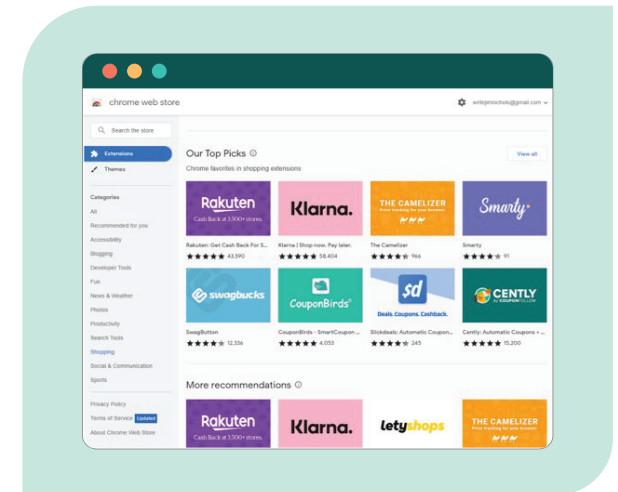
A shopping extension alerts customers to product information and available deals and offers. When customers arrive on a website, they have immediate access to potentially appealing information and offers without visiting a deal aggregation or other online web presence.

The most popular shopping extensions include Paypal Honey, Rakuten Cash Back, Wildfire, and Capital One Shopping, but there are many others. For this study, we tracked activity across users of 35 different extensions. Data from the 67 million customer journeys in our test show that about 3.2% of consumers have ecommerce extensions installed on their browsers.

**35**  
Browser Extensions

**67M**  
Customer Journeys Tested

**3.2%**  
Consumers with Extensions



– Google Chrome, the most popular browser worldwide, offers many different shopping apps and extensions through the Chrome Web Store.

## Background on Browser Shopping Extensions continued

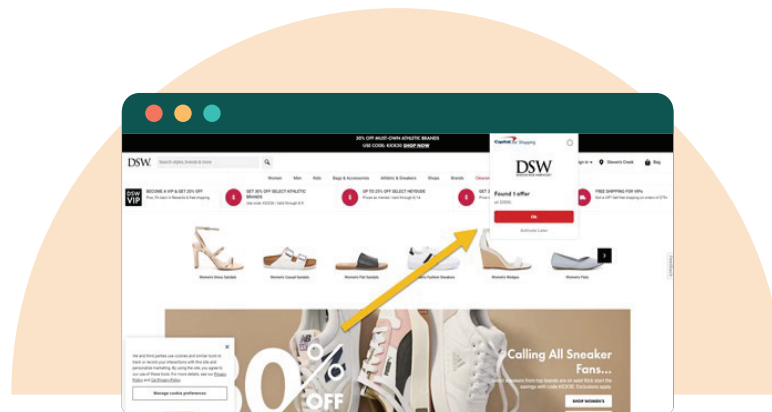
Shopping extensions tend to attract digitally savvy consumers who are more likely to transact online than nonusers. Our study shows that users who download extensions are more prolific shoppers, spending 185% more than customers without extensions. This is true regardless of whether they interact with an extension or not. They exhibit higher add-to-cart rates, conversion rates, and AOV.

This underlying difference in customer value was an important consideration as we designed our testing methodology. We needed to design a test that would account for this disparity, and test whether extensions were able to create additional value by further increasing these users' propensity to shop.

## Pushed Extension Pops

When customers arrive on a website or a specific page on a site, an extension may proactively deliver a “pop” screen overlay with product and or promotional information. Our test compared the shopping and conversion figures for people who received an automatic extension pop—i.e., where the extension pushed a message to the user proactively, without that user asking for information first—versus extension users who did not see an automatic pop.

In preparing for the study, we analyzed proactive pop activity across browser extensions and found that for a proportion of users, proactive pop is turned off—even when they visit the same sites and pages as people who receive proactive pops. This gave us a control group of users who have a toolbar installed, but did not receive a proactive pop during their shopping trip.



– An example of an automatic promotional pop from the Capital One Shopping Extension.

# Research Design

Our study tracked shopping and transaction activity across merchant websites in multiple categories across 67 million shopping occasions. We measured **cart loads, conversions, average discount applied**, and **AOV** for:

- A** **Group A:** Extension users who receive a proactive pre-checkout pop on a merchant site
- B** **Group B:** Extension users who do not receive an automatic pre-checkout pop

As mentioned earlier, the study compares actions of an extension audience that saw proactive pops with an extension audience that did not see proactive pops. This is unique; most past extension studies compare extension users to nonusers. With our study’s design, we can isolate the incremental business value of extension activity and messaging before checkout. We also studied the impact of pops where a deal or other value-add was present from those that delivered product information but no discount or other value-add.

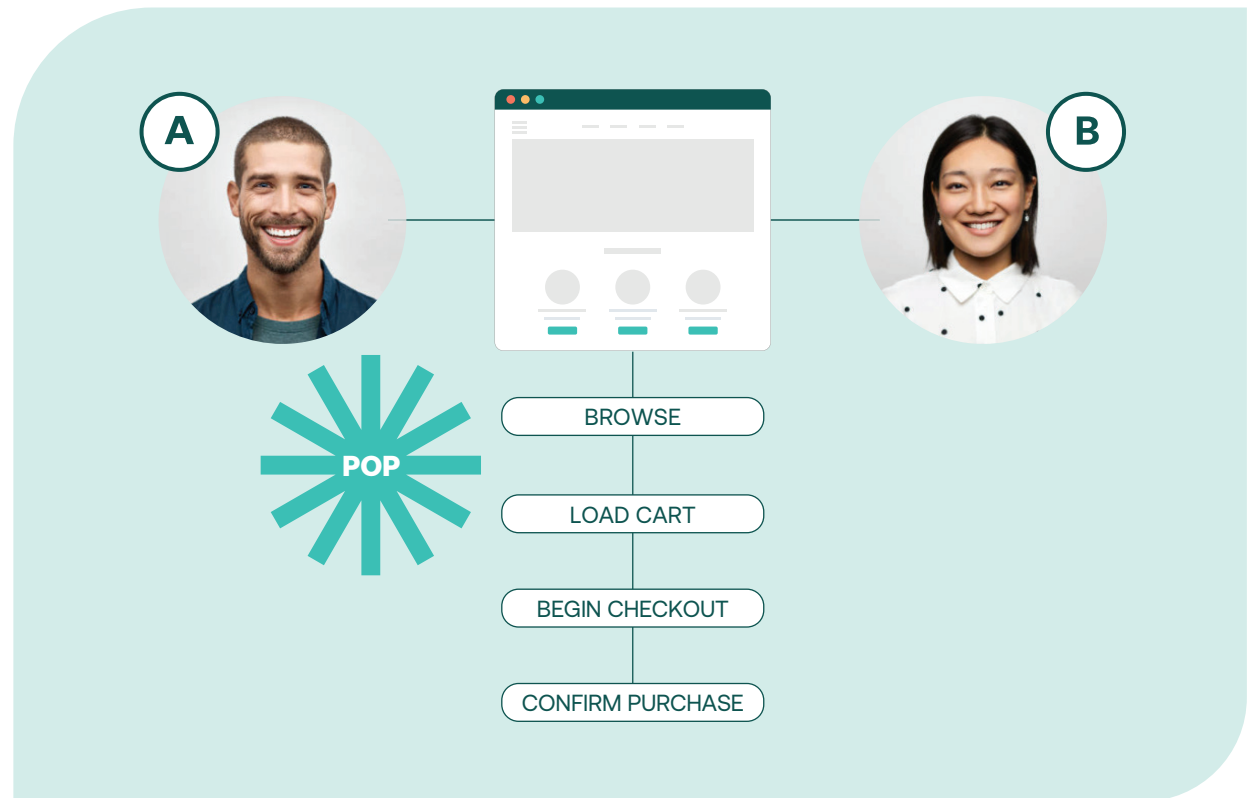
Commercial data for the study is based on:

**2M+**  
Journeys of Users with Extensions

**58%**  
Journeys That Included Automatic Pre-Checkout Pop

**42%**  
Journeys That Did Not Include Automatic Pre-Checkout Pop

– A simple schematic explaining the experience of our two extension user groups.



## Research Design continued

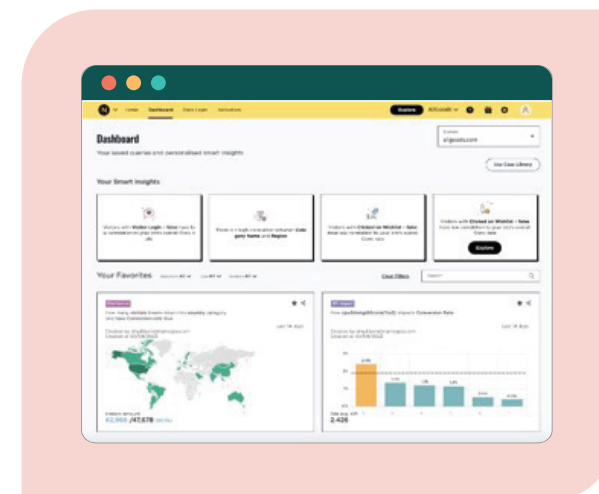
### Namogoo's Unique Capabilities for this Test

Tracking extension activity and its impacts is difficult because few tools can actually detect these actions in a way that does not affect the customer experience. This is a crucial characteristic. This study's methodology does not rely on suppression thus not changing the customer experience; instead it compares extension users who were served an automatic pop to those who were not to determine the impact of pops on user behavior. This methodology is closely aligned to traditional A/B testing across the wider advertising industry.

CJ partnered with the customer journey continuity platform, Namogoo, to get comprehensive and reliable data for this study. Namogoo's unique platform enables brands to track all activity occurring in a customer journey, to help predict and shape the buyer experience, and flag any unwanted interruptions in the customer flow.

In the context of extensions, Namogoo can identify journeys in which the customer receives an automatic pre-checkout "pop" and compare outcomes with those of extension users that do not see proactive pre-checkout pops. With Namogoo,

the user does not have to interact with the pop to be identified. This unique ability enables us to compare conversion rates and AOV apples-to-apples. These two groups of extension users share the same digital savvy and online shopping propensity, as opposed to comparing extension users to non-users who do not share similar propensities.



– *The Namogoo platform enables merchants to track every step and action in the customer journey, including browser extension activity.*



# Our Efforts to Eliminate Bias

Extensions are such a critical topic for the industry that we worked closely with clients, publishers, and the Namogoo team to mitigate any potential concerns about the validity of our data. Here are some of the steps we took:



**01**

## Large Sample Size

We structured our test to include 67M shopping occasions and 2.1M+ sessions from individuals with extensions.



**02**

## Transparent Test User Experience

We wanted to understand the incremental value extension exposures delivered in real-world situations, not rely on surveys or artificial test environments. Our test recorded activity without altering the shopping experience in any way.



**03**

## Multiple Categories and Price Points

Our goal was to provide guidance for the industry as a whole on the business value of extensions. We studied shopping occasions across multiple categories. While we don't claim that the figures will be the same for all categories and brands, our goal was to provide foundational guidance and insight to all affiliate marketers by collecting data across multiple categories and price points.



**04**

## Comparison of Extension User Behavior, Not Users Versus Non Users:

Any performance test needs to compare results to a similar control group. As noted earlier in this report, comparing conversion figures for extension users versus nonusers would introduce a strong bias into our data. Extensions naturally attract more valuable and conversion-prone customers, so to compare their results with non-users would artificially enhance the impact that extensions appear to offer. To mitigate any potential sample bias based on digital savvy or propensity to transact, we compared two audiences of extension users—one that saw an automatic pop and one that did not. This isolated the value exposure to shopping extension messaging delivers to the journey.



**05**

## Pre-Checkout Extension Activity

Extensions can deliver offers and content before a customer begins a transaction and/or during the buying process. Because people who have already begun to transact are far more likely to finish a transaction than those who have not, we only studied pre-checkout activity. Extensions likely increase conversions when they appear in the checkout experience and may also impact AOV. But for this study, our primary interest was understanding how they impact shopper intent and whether that carried through to completed purchases. This helps us isolate the incremental business value of exposure to extension pops.

# Results: Value of Pre-Checkout Extension Pops

Our findings showed that exposure to pre-checkout shopping extension pops significantly increased cart load and conversion rates while driving little change in the average discount applied at checkout.

## Effect of Pre-Checkout Pops on Revenue

Most extension messages contain discounts, cashback offers, or other deals to stimulate purchases. When users saw a proactive pre-checkout pop, add-to-cart rates increased by 38% and conversion rates increased by 64%. This amounts to an increase of 65% more revenue per session.

## Effect of Overall Extension Usage on Discount Amount

To determine whether extensions' overall function caused users to receive a larger discount, we looked at overall toolbar usage (both pre-checkout and in-cart). Comparing that group to extension users who did not see a pop, the difference in discount is negligible. Extension users who received a pop at any point in their journey only received 0.5% points more discount than users who received no proactive pop. Pre-checkout pops increased discounts by 2.2%, but due to an equal increase in revenue added to cart, this did not cause a decrease in AOV.

While some extension users required higher-than-average discounts to convert, this was offset by an unexpectedly large increase in conversion rate for extension users who could not find a discount.

**Results:**  
**Value of**  
**Pre-Checkout**  
**Extension Pops**  
continued

## Effect of Pre-Checkout Pops on Non-Discounted Carts

Extension messages seem to increase consumer confidence to purchase when no discount is available. Extension users who only had non-discounted products in their shopping cart, and did not receive a discount, were still 25% more likely to convert when they received a pre-checkout pop.

For some extensions, this may have been due to the presence of cashback / rewards; however the increase was consistent across toolbars which do not offer rewards, indicating that they were increasing propensity to purchase by providing confirmation that the user already had the best price.

## Effect of Having No Commercial Relationship with an Extension

A relatively small number of journeys in our study were from a merchant who did not offer commissions to any major browser extensions for the duration of the study. Wider data for this merchant indicates they employed a “full price” (i.e. “no discount”) pricing strategy across their site during the study.

The effect of not paying commissions varies by extension, but may include less accurate coupons/offers, no cashback offered, and less focus from the publisher on optimizing for that merchant site.

For this merchant uniquely, extension users became significantly less likely (-15%) to convert after interacting with a browser extension.

Combined with the prior insights around extensions’ capability to drive a 25% increase in conversion rate when no discount is available (but a commercial relationship does exist), this underlines the importance to non-discounting brands of maintaining some commercial relationship with browser extensions.

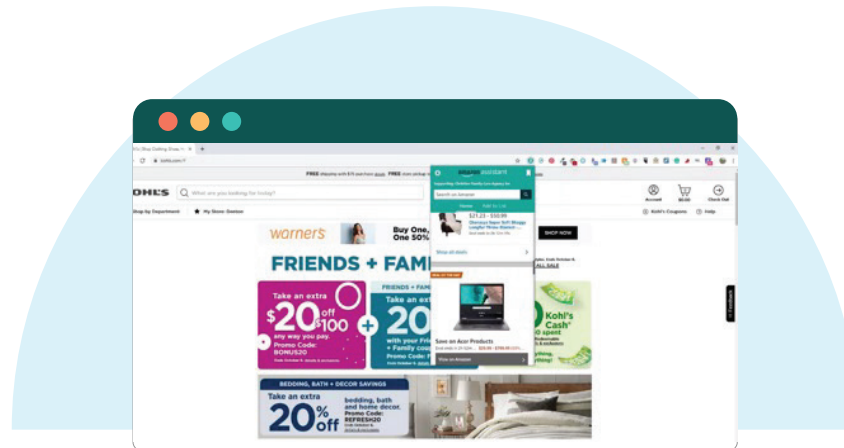
# Results: Value of Conquering Extension Pops

Critics of extensions often suggest that because extension users are already on a merchant’s site, they would have purchased from that merchant anyway. In order to further test this theory, our study also tracked the sales impact on merchants of “conquering extensions.”

Conquering extensions pop competitor messages and offers onto screens when consumers visit rival merchant sites. For example, consider two clothing retailers, Merchant A and Merchant B. When a consumer visits Merchant A, a conquering extension pops a message suggesting that they instead shop with Merchant B with a link to the Merchant B site. The leader in this arena was Amazon Assistant. While Amazon Assistant was

deprecated after the close of this study, we thought it would be valuable to publish insights from that extension to further validate the business impacts of extension exposures.

To determine how exposure to conquering pops impacted conversions, we analyzed the impact of Amazon Assistant on conversion rates and AOV. The data showed that exposure to Amazon Assistant’s proactive pops on rival merchant sites actually increased rival site conversion rate by 45% but reduced AOV by 52%, resulting in an overall loss of 30% revenue per session exposed to Amazon Assistant.



– The now deprecated Amazon Assistant. Photo via Lifewire.

**Results:**  
**Value of**  
**Conquering**  
**Extension Pops**  
 continued

At first, the higher conversion rate for the rival site may seem counter-intuitive—why would seeing a competitive message make someone more likely to convert?

But note that Amazon Assistant popped regardless of whether a better deal was available on Amazon. In many cases, it likely did not offer a better deal but rather provided third-party assurance that the rival merchant offered a great value. That value assurance actually boosted the user’s likelihood to convert with the rival merchant.

However, Amazon Assistant pops drastically reduced the AOV of those who saw them on the rival merchant’s site. We hypothesize that Amazon’s core benefit was enabling users to price compare on a per-product basis. The conversion rate went up on the rival merchant site when Amazon Assistant confirmed that the rival merchant offered a great price. But it hurt rival merchant sales of items where Amazon offered a better value. Many customers likely split their purchases between the merchant and Amazon; the extension’s price comparison function made it very easy to do so.

While Amazon Assistant no longer exists, the analysis summarized above provides further evidence that proactive extension pops are able to

significantly affect shopper behavior, and strongly indicates that a customer’s presence on a merchant site does not indicate that they are already decided on purchasing from that merchant.

This data may also help to explain how non-Amazon browser extensions are so effective at increasing customer revenue. Because most extensions provide third-party validation of available offers and coupons while keeping the user on their chosen merchant’s site, they reduce the likelihood that users will be exposed to competitive information or offers, ultimately resulting in a significant uplift in revenue per journey.



# Conclusions

Our data show that exposure to browser extension pops—whether or not they include offers—strongly impacts conversion rates and revenue. These popular consumer tools significantly increase the likelihood of customer purchases. Even though they help drive more purchases, they do not reduce AOV. The ultimate result of this is that browser extensions create substantial increase in merchant revenue without significantly impacting margins.

## A Significant Positive for the Affiliate Ecosystem

This is good news for advertisers using browser extensions and challenges many of the common objections that advertisers have to working with extensions. Browser extensions:



Make it far more likely that a shopper will add-to-cart



Have little impact on the average discount applied



Dramatically increase sales conversion rates



Have little impact on AOV

## Limits of This Research

Our research primarily focused on the sales impacts of browser extension pops proactively delivered pre-checkout. Extensions may also increase conversion rates when they deliver messages in the cart. While this is an important consideration, users in-cart (by definition) already have extremely high buying intent, and so seemed a less impactful group to test. Studying the impact on pre-checkout interactions focuses on how extensions can drive more customers into and through their purchase journey.



Conclusions  
continued

**Extensions and Conversion Credit**

Critics say extensions sometimes take credit for sales from traffic that other publishers worked hard to drive to the advertiser. Using the last-click crediting model, any customer journey involving multiple touches may “over-credit” the company that delivers the last touch.

Extensions are more likely to capture that last-click credit because they impact the customer on-site. Savvy advertisers understand that it’s essential to recognize this issue and take appropriate actions to ensure that upstream publishers get proper value for their business-building activity. Advertisers increasingly use multi-touch credit models, flat fee deals, and bonus payments to help compensate upstream publishers.

Based on this research, it’s clear that shopping browser extensions are an extremely valuable tool for merchants—one that deserves serious consideration as brands work to grow transactions, revenue, and profit.



## Learn More

Our study examined the business value of browser shopping extensions across 67M user journeys on a variety of merchant sites. Every brand and ecommerce store has unique characteristics that may affect the business impact that extensions provide.

### CJ Clients

If you want to better understand the impact on your site, speak to your CJ account manager to learn how we can structure an extension study for your site. We'll discuss your options and determine next steps.

### CJ Publishers/Partners

Get in touch with your partner development lead for more information. They can answer questions or direct your questions to our experts for follow-up.

### Other Advertisers and Publishers

We conducted this research to provide value to the entire affiliate marketing industry. If you have specific questions about the findings, or you'd like to discuss the study further, get in touch and we will connect you with a CJ expert.



# About the Authors



## Tomas Saulsbury-Hunter

Tomas Saulsbury-Hunter is Vice President of Client Development for CJ. A long-time leader in the partnerships and affiliate industry, Tomas works with leading brands and agencies to help drive more effective growth strategies. He provides extensive strategic and management guidance across the affiliate channel and works to help affiliate leaders integrate their programs with all other marketing channels. A 10-year CJ veteran, he joined our organization from the Fintech company Caxton FX, where he was an integral part of the commercial partnerships team.

## Josh Peterson

Josh Peterson is Vice President of Data Science and Analytics for CJ, where he leads a team delivering advanced quantitative insights to both clients and partners. An 11-year CJ veteran, he has extensive experience collaborating closely with clients and publishers to identify unique and innovative insights to drive better results and increased customer understanding. His work in customer journey, incrementality, opportunity sizing, and anomaly detection has been critical to the strong, sustained growth of many CJ clients and publishers.



## Tal Rotman

Tal Rotman is Vice President of Global Partnerships and Alliances for Namogoo and an Executive Member of the Partnership Leaders Industry Association. In his role at Namogoo, he helps the company and its clients grow by forging business-critical partnerships with leading technology and service companies focused on improving marketing performance.

## About CJ and Namogoo



### CJ

Founded in Santa Barbara, California in 1998, CJ (formerly Commission Junction) continues to lead the industry as the largest, most trusted name in global performance marketing, specializing in affiliate marketing technology and services. We're the platform of choice for driving profitable growth for over 3,800 global brands across all verticals, including retail, travel, finance, and network & home services—our technology powers a partnership ecosystem where over 167K publishers and brands engage billions of consumers worldwide.

As part of Publicis Groupe [Euronext Paris FR0000130577, CAC 40], aligned with Publicis Media, we leverage unparalleled data, technology, and strategic expertise to bring a truly customer-centric approach to performance marketing. For more information visit [cj.com](http://cj.com).

The Namogoo logo is the word 'NAMOGOO' in a bold, uppercase, sans-serif font, with horizontal lines connecting the letters 'O', 'G', and 'O'.

### Namogoo

Namogoo is the world's first Digital Journey Continuity platform, helping over 1,000 unstoppable brands shape their customer journeys to fit each and every shopper's needs. Namogoo's platform autonomously adapts to each customer visit in real-time, lifting conversion rates and revenue, while maintaining eCommerce retailers' margins and bolstering brand equity. Namogoo is available on all major eCommerce platforms, including Shopify, BigCommerce, Salesforce Commerce Cloud, and Magento - serving over a thousand global brands of all sizes.

Founded in Herzliya, Israel in 2014, Namogoo also has offices in Boston, New York, and London. To learn more, visit [namogoo.com](http://namogoo.com).



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