

# X-Ray Specs for Path to Purchase Attribution

Wanna drive away your customers? Optimize ads to the wrong digital behaviors.

## FOUNDATIONS • PART I

The New Foundations of Ad Effectiveness challenges the conventional wisdom of what works in advertising and what is needed to get on track for the next era.



# Is all engagement good engagement?

The technology powering digital advertising is going through massive upheaval. You've likely heard big talk about the promise of first-party data as brands, agencies, and media companies try to fill the looming void of third-party cookies. Pulling data together in-house sounds wise, but if you optimize campaigns on first-party data alone, you may be engaging your target consumer away from purchasing destinations.

Companies across the fragmented marketing ecosystem are increasingly facing blind spots in the transition to first-party data. Analysts are doing their best through technological constraints, improved consumer protections and "apples and oranges" methodologies to create a single, comprehensive source-of-truth to help them connect with their consumer. These elaborate systems have one fatal flaw. They are often based on attribution and optimization of what happens on a brand's website, not the activities that occur on competitors' sites, in search or on e-commerce sites that could be more impactful in generating ultimate sales. These data blind spots can create to serious business impact.

## Can you see the digital behaviors that actually... drive sales?

Marketers still don't know which digital behaviors actually drive sales outcomes.

It's not their fault. It's nearly impossible to string together a full view of the customer journey - holding previous brand propensity constant - with the consistency that would allow us to compare relative effectiveness. But with third-party cookies becoming a thing of the past and platforms siloing off data, behavioral signals from fully permissioned consumer panels will be increasingly important. These platforms can provide indicators of sales intent and brand strength and are necessary ingredients to the ad measurement mix. We need to know which behaviors to focus on for marketing and measurement purposes and fully permissioned behavioral panels provide answers.

To truly measure which engagement signals actually lead to purchase, DISQO leveraged its member-driven, zero-party audience insights platform to run a research experiment to answer key questions:



1. Is visitation to a branded website a good indicator of purchase behavior?
2. Are people more likely to purchase after consuming content on a brand site or a third-party e-commerce site?
3. Which engagement metrics and channels are most likely to predict purchase?

We set out to uncover insights that would help an advertiser or agency know how to interpret the behavioral clues about what really drives sales.

### YOU MIGHT BE SURPRISED TO LEARN

**Not all search is created equal.** Search via a search engine and search inside an e-commerce environment have differing effectiveness in predicting purchase behavior.

**Viewing a product page on your own website** and viewing a similar product page on an e-commerce platform yield vastly different results.

# Methodology

With DISQO's opt-in, fully permissioned panel, our members share all of their desktop and mobile behaviors on an ongoing basis. We reward them for sharing which means we have 100% of all activity — collected ethically, no creepy stalking required. With this full line of sight across the consumer's journey on the web - including social activity and e-commerce shopping - we are able to control the analysis for the timing of behaviors and prior brand propensity. This allows us to measure the drivers of sales impact in a way not available elsewhere.

Over five months, we examined consumer behaviors relative to a fast-moving consumer goods product and a high-ticket consumer electronics product. We looked at laptops and pet food, measuring the behaviors of tens of thousands of consumers who exhibited digital interest across these products.

With this robust data set, we were able to analyze consumer activity relative to specific pet food or laptop brands, and also activities tied to other brands in their competitive space. We measured behaviors related to:

1. **Product-level brand**, i.e., the specific brand or product names of the pet food and the laptop
2. **Parent brand of the product**, i.e., the high-level company that produces the pet food and the laptop
3. **Generic category**, i.e., any behaviors related to "pet food" and "laptops" in general
4. **Competitors**, i.e., engagement with any brand that is a competitor in the pet food or laptop spaces

For each of these subjects, we measured our members' activity across **five different behavioral channels**:



Search engine  
activity



Brand website  
visitation



Search on an  
e-commerce platform



Pageviews on an  
e-commerce platform



Reading reviews on  
e-commerce pages

## FOUNDATIONS • PART I

This empowered us with 20 distinct upstream earned and owned behaviors that we compared to the ultimate add-to-cart actions to see how predictive each behavior was in driving ultimate sales and allowing us to answer our burning questions like:

1. How likely was a consumer who searched for “pet food” on a search engine to ultimately purchase a product from our selected pet food brand?
2. Of those consumers visiting websites of competitive laptop manufacturers, how likely were they to ultimately choose and purchase our selected brand's laptop?
3. If someone searched for our selected pet food brand on an e-commerce site, how likely were they to buy our brand's product?
4. When a user reads reviews for our selected laptop brand on an e-commerce site, how likely are they to purchase? Are they more or less likely than those who don't read the reviews?

To answer these questions and more we evaluated data across all 20 behavior-subject combinations:

1. What are the different probabilities that each of the 20 upstream digital behaviors leads to an add-to-cart event for the brand of interest?
2. Do relationships of branded digital behaviors to conversions hold up across competitive brands? Across low- and high-consideration categories?
3. Which of these behaviors are the best indicators of ad effectiveness?

## THE NERDY PART

### How we correlated upstream behavior types to adding the brand to a cart:

We classified each consumer's behaviors as binary variables for whether or not they engaged in a given upstream behavior, and if they also exhibited an add-to-cart event for the brand of interest. We created a series of 2x2 contingency tables and calculated the Phi coefficient for each combination to quantify the difference in conditional probabilities. For example, what is the difference in the chance that someone adds my brand to the cart if they see my product page vs. not seeing it? The higher the Phi coefficient, the more likely a successful purchase outcome.

These correlations allowed us to weigh the relative likelihood for each digital behavior to result in a consumer purchase.



## e-Commerce activity wins by a long shot

Across both branded products we studied, the same trend emerged. Any activity on an e-commerce website - even reviewing competitors - was considerably more predictive of conversions than other behaviors — including search engine behaviors, and even visitation to the studied brands' websites.

Consider the following results we obtained for pet food and laptop brands of interest.

**TABLE 2: CORRELATIONS OF DIGITAL BEHAVIORS TO ADD-TO-CART (PET FOOD)**

EVENT TYPE	BRAND ORIENTATION			
	Generic	Competitor	Parent brand	Brand
Search engine	-.07	-.03	.01	.09
Brand.com	N/A	-.04	N/A	.04
e-commerce search	.10	.10	.15	.34
e-commerce pageviews	N/A	.05	.09	.38
e-commerce reviews (small samples)	N/A	.04	.01	.10

While you might expect these results for a low-consideration purchase like pet food, it's natural to expect that a laptop, a high-consideration piece of technology, would be associated with more upstream research behaviors.

Perhaps surprisingly, the same relationship held true for laptops: third-party e-commerce sites were the clear winner.

**TABLE 3: CORRELATIONS OF DIGITAL BEHAVIORS TO ADD-TO-CART (LAPTOP BRAND)**

EVENT TYPE	BRAND ORIENTATION			
	Generic	Competitor	Parent brand	Brand
Search engine	.01	.02	.03	.16
Brand.com	N/A	.01	.03	.09
e-commerce search	.05	.05	.16	.26
e-commerce pageviews	N/A	.08	.21	.35
e-commerce reviews (small samples)	N/A	.06	.09	.25



# Testing the trends across competing brands

Diving deeper, we checked out four competitive laptop brands to see how digital events with these brands in e-commerce correlated with cart additions for our selected laptop brand. Clearly, the importance of viewing product pages and searching inside e-commerce platforms held up, although the market leader had considerably higher conversion rates across the board inside e-commerce.

**TABLE 4: CORRELATIONS OF BRANDED DIGITAL BEHAVIORS TO SAME ADD-TO-CART (4 LAPTOP BRANDS)**

BRANDED EVENT TYPE	BRAND ORIENTATION				
	Brand A	Brand B	Brand C	Market leader	Laptop average correlations
Search engine	.16	.05	.11	.14	12%
Brand.com	.09	.03	.06	.10	7%
e-commerce search	.26	.11	.21	.40	25%
e-commerce pageviews	.35	.34	.35	.51	39%
e-commerce reviews (small samples)	.25	.16	.16	.32	22%

Even with competitive brands in the mix in this high-consideration category, the same pattern held: the most correlated upstream behaviors to conversion events were viewing the brand's product page in e-commerce, followed by searching for the brand by name within e-commerce.

Brand strength inflates... but doesn't change priority. The market leader has markedly higher conversion rates at each step in the journey, but the relative patterns of importance still hold for that brand as well.



# What these findings say about the new foundations of ad measurement

Brands who lack access to consumer behavioral insights outside of their own site have digital blindspots in the path to purchase.

## 01 INSIGHT

### **On e-commerce sites, all engagement is good engagement**

Every metric for e-commerce performed well. E-commerce search is a stronger signal than other metrics that the consumer is serious about making a purchase. Regardless of the type of activity, engagement on an e-commerce site after campaign exposure is always positively correlated with purchasing your product — even broad category search or research for your competitor. Viewing your specific product on an e-commerce site is the most predictive of conversion. For laptops, an e-commerce product view was over twice as likely to result in sales as a visit to the laptop's own website. For pet food, it was over 4x as likely.

### **ACTION**

To be effective, you must include off-site visitation and search in your ad effectiveness measurement and optimization. Optimizing to actions on your own site is not nearly as valuable and could even be detrimental. Driving e-commerce activity should be among your #1 digital advertising KPIs.

## 02 INSIGHT

### **Branded search within e-commerce outperforms generic search by 2-4x**

This implies that the two types of search events should not be grouped together or equally weighted as upstream metrics predictive of conversion. For the competitive CPG space, optimizing to search could work against you. Category or high-level brand searches like "Pet Food Brand" or "cheapest laptops" have virtually no correlation with the ultimate add-to-cart action. For the pet food category, generic searches for "pet food" had a negative correlation to sales. This may indicate that the consumer is early on in consideration.

### **ACTION**

Branded search is effective, so focusing on branding across your entire campaign is crucial. Co-branded ads with retail partners that deliver brand value and awareness of where to buy maybe a strong creative strategy. Give consumers a reason to search for your brand on sites where they buy.



### 03 INSIGHT

#### **Don't worry if your consumers are searching for your competitors, but advertise!**

The strength of your brand is the best defense against competitive media spend. When consumers have you top of mind, search is well correlated with sales. Ads that drive downstream behaviors are most effective when supported by existing brand awareness. On e-commerce sites, however, when consumers look for your competition, it just means they are in active research mode. Competitive search and page visitation within e-commerce are natural as consumers “hop around” brand pages.

#### **ACTION**

Be sure to be seen where it matters most. Advertising on competitors' pages in e-commerce has significant value in conquering them at the moment before the sale.

### 04 INSIGHT

#### **Reading reviews are not necessarily “need-to-have”**

Product reviews do not play as much of a role as marketers might think for existing brands. Having a five-star brand is better than a five-star review. Too often companies obsess over changes in consumer review rankings, but this metric may be a distraction.

#### **ACTION**

Focusing on the metrics that matter: product page visitation, not reviews, is critical.

### 05 INSIGHT

#### **Use paid search to drive traffic to e-commerce pages, not your brand site**

Many marketers think that their strongest presence is their own web domain, but it turns out to not be very predictive of add-to-cart events (unless you have e-commerce inside of your domain). It is better to build the strongest brand page presence possible inside of the platforms where consumers actually purchase.

#### **ACTION**

Use search engines to drive consumers to places where add-to-cart events can actually occur, even if you don't get increased visits on your own site.

# Implications for advertising

Marketers often evaluate digital advertising based on click-through rates that drive audiences to their site, but at least for these two categories, these are poor measures of effectiveness. The most correlated behaviors occur inside of e-commerce sites, so this is the metric-to-watch as marketers evaluate whether an ad is working. In fact, if you are optimizing without single-source insight into e-commerce performance, you may be decreasing your ROI.

Want to measure how ad exposure drives e-commerce behavior? To do it, your ad measurement must have comprehensive and comparable data to connect the ad exposure event to e-commerce shopping sites as well as your other media and search activity. We specifically looked at advertising impact in the case of the laptop brand. After exposure to ads, the brand received a 3% view-through rate which revealed little about the value of the ad campaign. **Only through linking ad exposure to e-commerce did we see that the campaign actually drove a 67% lift in add-to-cart events (where 36% converted to confirmed purchases) - quite a successful campaign.**

This demonstrates that the modern movement for the emerging dominance of first-party data may be helpful for targeting but may not be as effective for advertising measurement. Without complete online behavioral signals to determine the best indicators of sales intent, you risk misunderstanding performance and may optimize against your best-performing campaign elements! Measurement for optimization is only complete if it measures the tech vendors, e-commerce hubs, and other websites where consumers ultimately buy products. Your first-party data alone can't do that.

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