



NORTHWESTERN
UNIVERSITY

From Reviews to Revenue

*Volume 2: How reviewer self selection
impacts ratings and reviews*

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About Spiegel Digital and Database Research Center, the Study, and PowerReviews

Introduction

In our last research study with Northwestern University, we examined the circumstances under which reviews are most impactful on purchase decisions. Next, we set out to examine how reviews differ based on where they originate and how this impacts sales.

In general, reviews originate from two different sources: **verified buyers** and **anonymous consumers**. In the case of verified buyers, a consumer purchases a product online, then receives a post purchase email from the brand or retailer asking them to review their recent purchase. In this case, the consumer is considered a verified buyer because the brand or retailer can tie the review back to a transaction. PowerReviews flags these reviews with a “Verified Buyer” badge.

On the other hand, there are reviews from anonymous consumers. In this case, the consumer navigates to a brand or retailer website without prompting and writes a review for a

product. These reviews can originate when a purchase is made in-store or when the person who purchases the product isn't the end user, such as when a product is purchased as a gift. However, since the review isn't tied to a transaction, there's no sure way of determining whether or not this anonymous consumer actually purchased the product in question.

How do reviews from verified buyers and anonymous consumers vary? And which type of review is more influential to future shoppers and impactful on sales?

PowerReviews again partnered with Northwestern University's Spiegel Digital and Database Research Center to better understand the nuances of these two different types of reviews. This report helps brands and retailers understand how self selection impacts star ratings and provides practical recommendations to preserve the credibility of reviews.

★★★★★ Great case for the price and includes some neat Shopkins!

1/28/2016

By **Just a Dad**

from Tampa, FL



PROS

Case has pegs along bottoms to hold figures
Easy to open and use for small children

CONS

None

BEST USES

This is a great case for your Shopkins. My daughter loves that she can showcase her figures and they don't move because of the pegs along the bottom. They fit perfectly and it even includes stickers with the group names on them, great for organizing them. The case has an easy slide clear cover and a handle at the top for kids to carry their Shopkins around with ease. For collection, you can snap multiple cases together to make a nice display. The best part is that it comes with

REVIEW FROM VERIFIED BUYER

★★★★★ Useful Box!!!

1/14/2016

By **Sindylou**

from Fontana, CA

I love this product because it keeps Shopkins organized, I was worried because of the size of the toys. I thought they would be all over the house but thanks to this box, my daughter has them organized.

WAS THIS A GIFT?: No

BOTTOM LINE Yes, I would recommend this to a friend

Was this review helpful? Yes / No

You may also [report this review as inappropriate](#).

Comment on this review

REVIEW FROM ANONYMOUS BUYER

A woman with long dark hair, wearing a grey crop top and blue jeans, holds a straw hat up to her face. Next to her, a man in a white t-shirt and dark pants holds a black hat up to his face. They are standing in front of a brick building with a wooden door and a balcony. A black metal fence is in the foreground.

How Reviews Vary Depending on Source



Reviews From Verified Buyers Have Higher Average Ratings

Reviews from verified buyers are substantially more positive than reviews written by anonymous consumers. The average star rating for reviews from verified buyers is 4.34, compared to an average star rating of 3.89 for reviews written by anonymous consumers.



Verified Buyer (4.34)

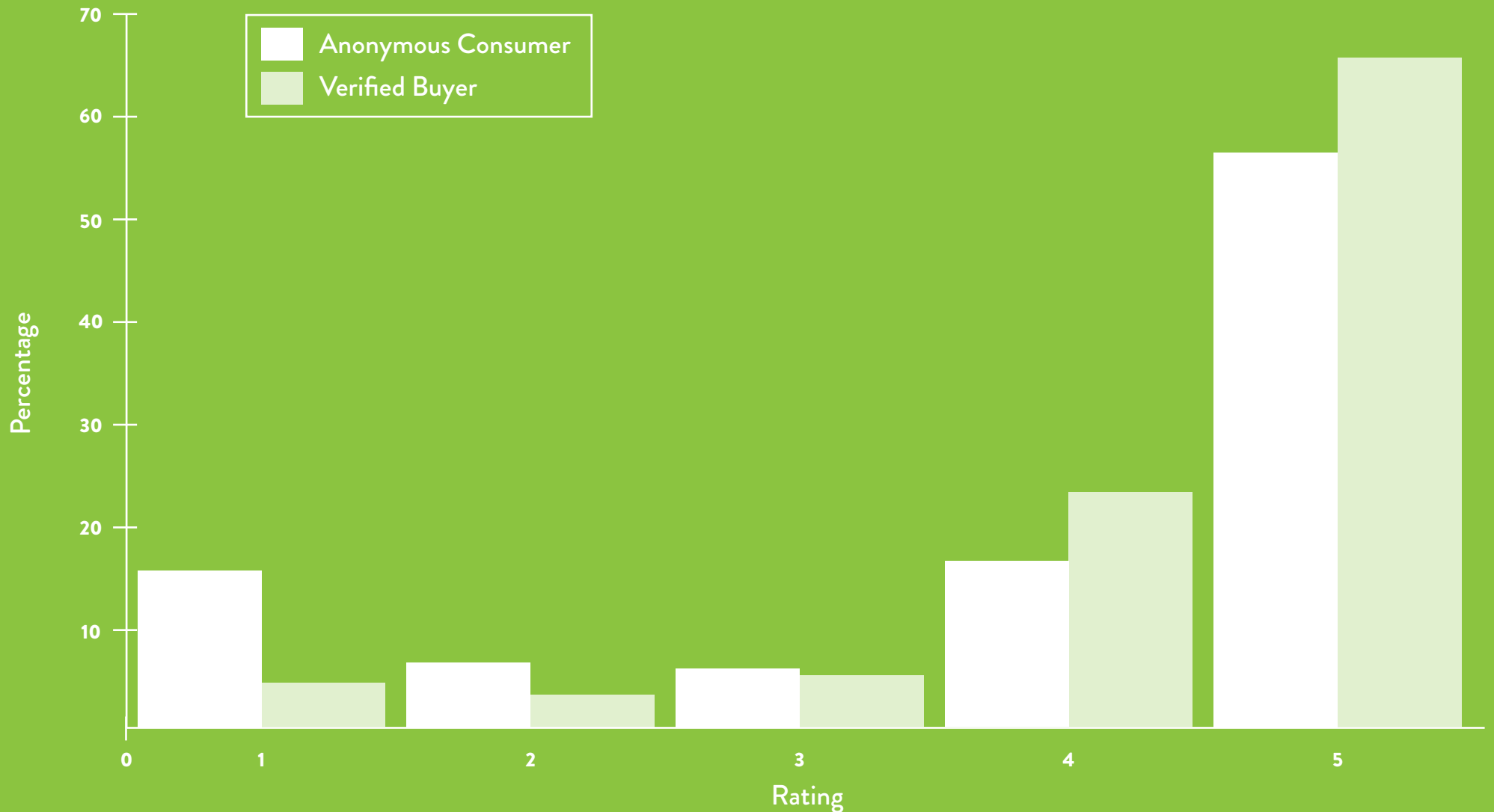


Anonymous Consumers (3.89)

In addition, reviews from verified buyers boast a larger percentage of 5-star ratings, while reviews from anonymous consumers have a larger percentage of 1-star ratings.

This is consistent with a theory that users who are self-motivated to write a review without being prompted are more likely to have extreme (often more negative) opinions.

Average Star Rating for Reviews by Source





Verified Buyers Select More Positive Tags

PowerReviews allows reviewers to enrich their reviews by adding various tags, including **Pros**, **Cons** and **Best Uses**.

For example, imagine a consumer purchases a flannel shirt. When writing a review for that shirt, she can indicate the pros of the shirt (comfortable), the cons (doesn't wash well), and the best uses (great for casual wear and date night). This tag-based approach makes it easy for the shopper to be more

specific with her feedback, and it helps future shoppers get the information that's important to them, quickly.

The researchers at Northwestern found that reviews from verified buyers have 6.5% more “pros” tags and 50% less “cons” tags on average than reviews from anonymous consumers. This is further evidence that reviews from verified buyers are generally more positive than those from anonymous consumers.

By **kitty lady**



5.0

Nice warm shirt.

1/23/2016

from **North Branch, Mi**

About Me

Casual Dresser

Verified Buyer

[Comment on this review](#)

PROS

Comfortable
Good Fit

CONS

BEST USES

Casual Wear

Comments about Duluth Trading Women's Flapjack Flannel Shirt Jac:

i have ordered more than one of these shirts so I think they are great. Just the last one arrived in a color I didn't order but I kept it any way even though I already had it in that color.

COMFORT VS STYLE: Comfort Driven

WAS THIS A GIFT?: No

BOTTOM LINE

Yes, I would recommend this to a friend

PROS, CONS & BEST USES



Average Rating for Reviews From Verified Buyers Remains Steady Over Time

The researchers at Northwestern also studied the evolution of average star ratings over time. Reviews from verified buyers not only have higher star ratings, but they're also very consistent over time. In contrast, the average star rating of reviews from anonymous consumers tends to decline over time.

Why does the average star rating of reviews from anonymous buyers decline over time? The researchers at Northwestern believe that the differences are a strong indicator of selection and social influence biases.

In the case of a verified buyer, the shopper receives an email after making a purchase, requesting that she write a product review. If the shopper decides to click through to write a review, the page she is taken to doesn't reveal any information about the existing reviews for the product. She's writing her review without the influence of other people's opinions.

On the other hand, if an anonymous consumer goes to a website to write a review without prompting, he can see the current volume and average star rating of the product. This can introduce complex dynamics regarding the decision of a user to review as well as potential social biases affecting the user's submission.



Social Bias May Influence Anonymous Consumers

For example, let's say an anonymous consumer purchases a blender in-store, and within a few days, the blender stops working. The consumer will navigate to the product details page of the retailer's website to write a review, and when they do, they see that the product has a high average star rating. The consumer gives the product an even lower rating than they planned in order to bring the average star rating down.

Reviews from Verified Buyers Are Shorter

Northwestern also compared the length of reviews generated from verified and anonymous consumers. Reviews from anonymous consumers have 85% longer submitted text than reviews from verified buyers, 376 characters compared to 203. Again, this supports the theory that users who are self-motivated to write a review are more likely to have extreme opinions, and therefore, submit longer reviews.



How Reviews From Verified Buyers Influence Purchase



Reviews from Verified Buyers Impact Purchases

It's important to consider whether consumers evaluate reviews from verified buyers differently than they evaluate reviews from anonymous buyers. In other words, do consumers place more trust in a review if it's written by a verified buyer?

The Northwestern team found no concrete evidence to indicate that reviews from verified buyers have a different effect

on consumers than those from anonymous reviewers. More positive reviews are associated with higher purchase rates, however, and reviews from verified buyers are systematically more positive than those from anonymous consumers. Therefore, the number of reviews from verified buyers does have a positive impact on the likelihood. This is good news for retailers, as research has found that up to 70% of reviews originate from post purchase emails.¹

1. PowerReviews Internal Data

“The number of reviews from verified buyers has a positive impact on purchase likelihood.”



4 Recommendations for Brands and Retailers

The findings of this study point to the importance of preserving the credibility of reviews. With that in mind, here are four practical recommendations for brands and retailers.

1

Eliminate fake reviews.

Allowing reviews to be submitted via the web opens retailers up to the possibility of receiving fraudulent reviews. The authenticity of reviews is what makes them powerful. That's why it's key for brands and retailers to ensure they have measures in place so review content remains authentic and fraud-free.

2

Indicate when reviews come from verified buyers.

Though it's unclear whether consumers place more trust in reviews from verified buyers, it's important to be transparent about the source of reviews and give shoppers the information they need to make their own decisions. If you don't already, use a Verified Buyer badge so consumers can better understand who wrote each review.

3

Provide incentives to attract a better user sample.

The more reviews you have, the more representative the insights gleaned from them. But previous PowerReviews research¹ found that more than half of consumers who aren't writing reviews cited needing motivation to do so. Incentivize shoppers to write reviews by using sweepstakes, coupon codes for free shipping or discounts, or by leveraging an existing loyalty or rewards program. Again, transparency is key. Ask your reviews software partner if they allow you to indicate whether a reviewer received a sample or other incentive for writing a review.

4

Implement a post purchase email program.

Most shoppers need a little encouragement in order to write a review. If you aren't already, be sure to send a post purchase email to shoppers reminding them to review the products they've recently purchased. Research has found that up to 70% of reviews originate from post purchase emails.²

1. PowerReviews: The Proven Power of Ratings and Reviews.

2. PowerReviews Internal Data

Introducing the experts



Edward C Malthouse | Research Director

Ed Malthouse is a research fellow at the Media Management Center, a partnership between Medill and Kellogg. His research interests center on media marketing, database marketing, advertising, new media and integrated marketing communications. He develops statistical models and applies them to large data sets of consumer information to help managers make marketing decisions. Ed is also currently the co-editor of “Medill on Media Engagement.” He was the co-editor of the *Journal of Interactive Marketing* from 2005-2011. His professional experience includes software engineering for AT&T Laboratories, corporate analytics training for Accenture, BNSF, Digitas, Nuoqi and Capital One, and developing segmentations for Cohorts and Financial Cohorts and Motorola.



Georgios Askalidis | Ph.D. Candidate

Georgios Askalidis is a fifth year Ph.D. student in the Computer Science and Economics group at Northwestern University. His work includes research on economic and computer science problems as well as Big Data analysis techniques. His thesis is focused on understanding the dynamics of online user review submission and suggesting actionable insights to make online reviews more credible and representative. His past experience include two internships with the Data Services and Solutions team of eBay Inc, where he conducted research on the behavior of consumers using fitness wearables and product managed the development of recommendation models. He is also the co-founder of a resident team at the Garage at Northwestern, a cross-disciplinary entrepreneurship space for Northwestern students.

About the Study

This report is based on 2015 research conducted by Northwestern University Spiegel Digital and Database Research Center and commissioned by PowerReviews. The Northwestern research team conducted an analysis of 57,000 reviews from anonymous consumers and 65,000 reviews from verified buyers for about 13,500 unique products in categories including health and beauty, electronics, and home and garden.

About PowerReviews

PowerReviews works with more than 1,000 global brands and retailers to collect and display ratings and reviews on 5,000 websites. Ratings and reviews are an essential resource for consumers as they search and shop online and in-store: they drive relevant traffic, increase sales, and create actionable insights to improve products and services.

About Spiegel Digital and Database Research Center

The focus of the Northwestern University Spiegel Digital and Database Research Center is to do evidence-based, data driven analysis to prove the relationship between customer engagement and purchase behavior. The Center's research focuses on consumer behavior in social media and on mobile devices. For more information, visit spiegel.medill.northwestern.edu.

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