

NSI Prioritizes Page Speed to Drive a More Profitable Experience

CASE STUDY - USABILITY & UX

Northern Safety and Industrial (NSI) is always prioritizing ways to serve customers better, including making necessary optimizations to its digital experience.

Challenge

NSI's mission statement centers around delivering the products and services their customers need and desire. Their customers' needs grew in 2020 due to the pandemic, which created a surge in demand for their products. Keeping up with the demand for inventory was one challenge, but the company also understood the importance of providing an optimal digital experience for its customers.

Solution

NSI partnered with Blast to better understand and optimize their on-site experience. As part of this partnership, the Blast team provided strategic recommendations to improve the entire experience, from acquisition to on-site engagement.

For example, NSI had a particular interest in recommendations to optimize SEO performance, both from a technical and content perspective. As part of the technical SEO recommendations, page speed performance came into view, since NSI understood the negative implications of poor page speed performance on SEO metrics and key business metrics, such as average revenue per user and revenue.

After presenting recommendations on how to improve page speed performance, Blast collaborated with NSI's team on next steps, specifically turning insights into action. In fact, within a short amount of time, NSI implemented a number of top priority page speed recommendations in January 2021.

Goals

- Deliver an optimal digital experience that meets customers' expectations

Approach

- Provide strategic recommendations to improve the customer experience, from acquisition to on-site engagement

Results

- 21% improvement in average page load speed
- 51% increase in average revenue per user
- 50% increase in revenue
- 8.5x Return on Investment (ROI)



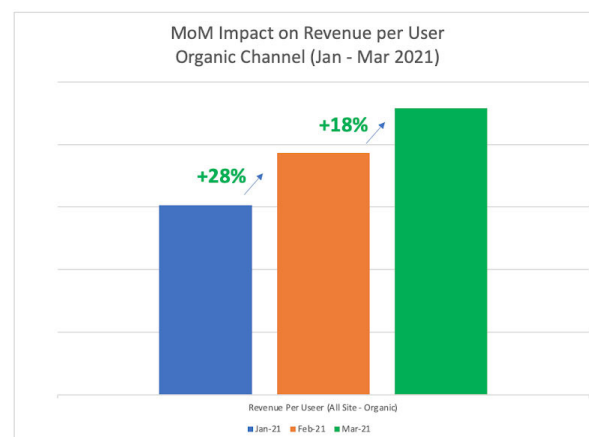
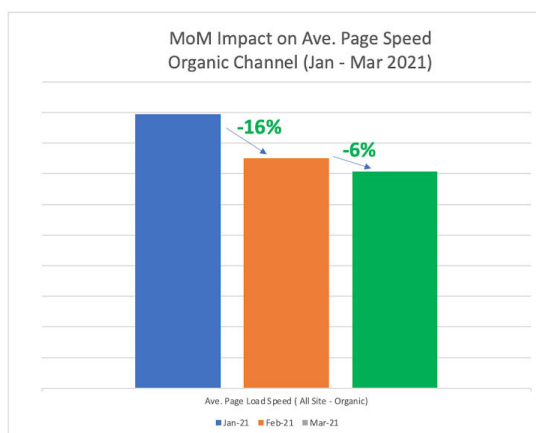
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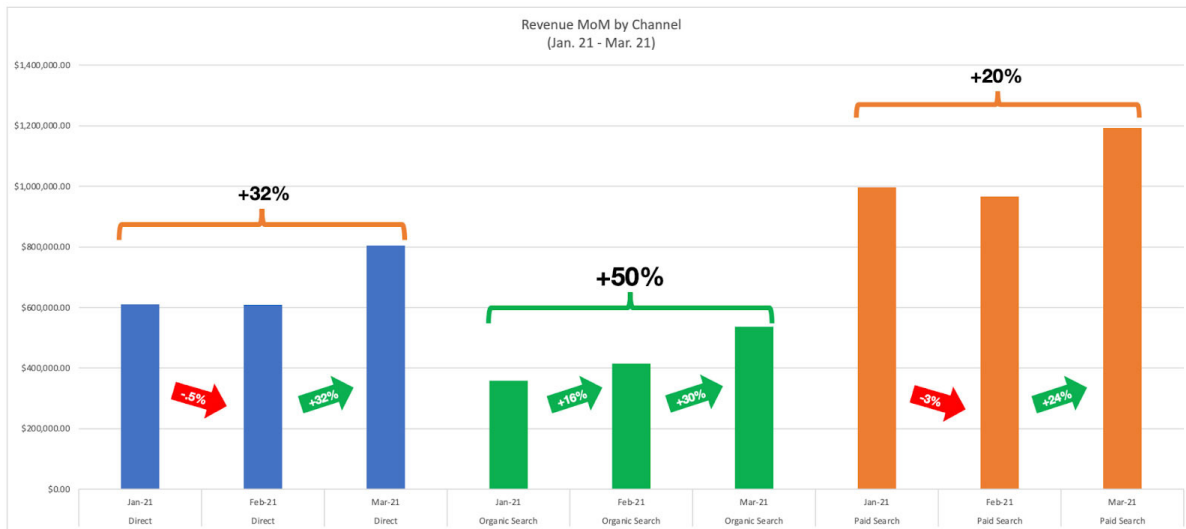
Results

To properly measure the business impact of implementing these page speed recommendations, performance for the organic channel had to be evaluated over a span of several months. Specifically, Blast analyzed average page load speed, average revenue per user and revenue by looking at Google Analytics data month-over-month (MoM) from January through March 2021.

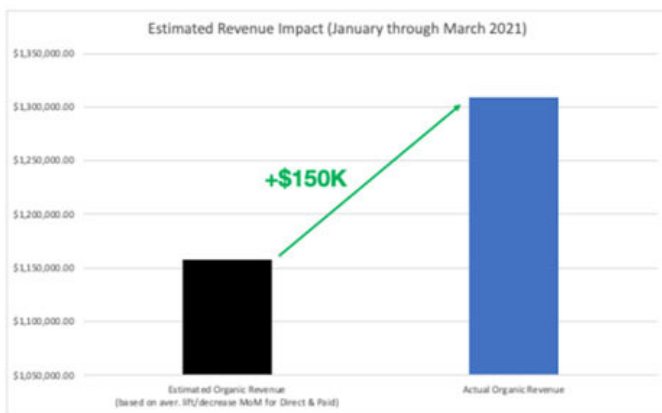
Performance from January to March, we saw a **21% improvement in average page load speed**. We also saw a **+51% increase in average revenue per user** for the organic channel.



In evaluating revenue performance by channel, external factors, such as seasonality, may come into play. For example, direct, paid, and organic channels all showed an increase in overall revenue from January to March 2021. However, organic is the only channel that showed a positive increase from January to February and February to March. Moreover, the percentage of increase in overall revenue was far higher for the organic channel (**50% increase**) than the other primary channels (32% and 20% increase for direct and paid search, respectively).

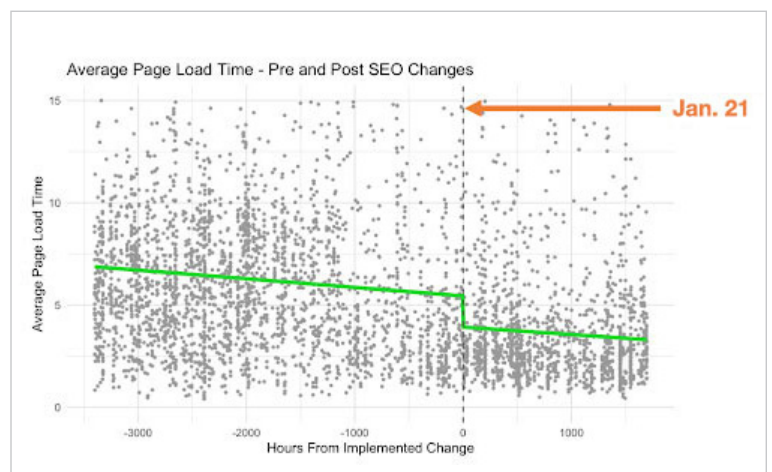


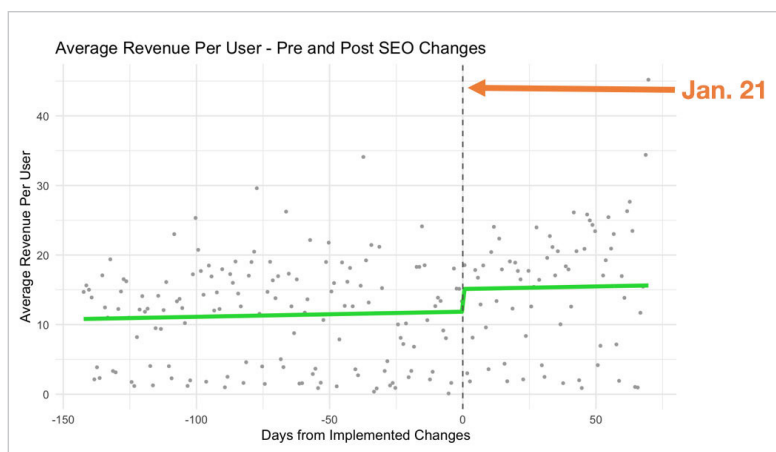
For paid search and direct channels, there was an average of 1.8% decrease in revenue from January to February and an average of 28% increase in revenue from February to March. We applied these averages to organic revenue to get an estimate of what revenue would have been if page speed recommendations were not implemented. Using this estimate, we calculated the additional increase in revenue and return on investment for the organic channel:



Seeing these positive results from Google Analytics, Blast and the NSI team wanted to provide additional statistical rigor to ensure that these business impacts were not due to mere chance (e.g., statistical significance of 50% or less). The only way to truly establish causation is through a formal experiment, which isn't always possible, especially for page speed recommendations.

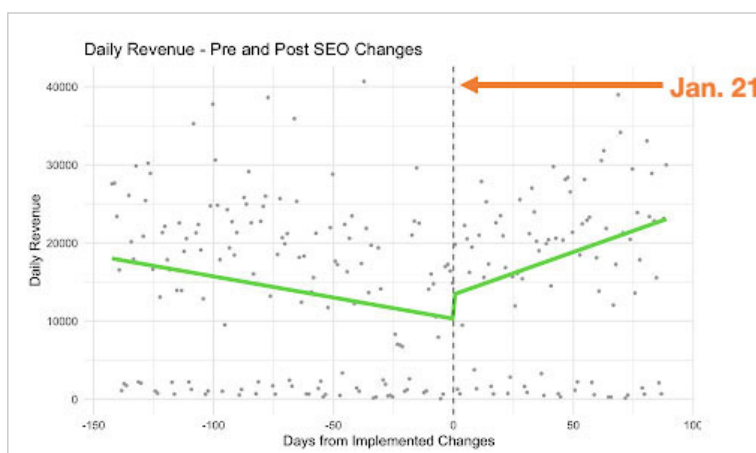
As the next-best approach, Blast data scientists applied Regression Discontinuity Design modeling to the data. In doing so, NSI was able to see that there was a significant decrease in average page load speed around the time they implemented the recommendations (**1.3 seconds decrease in page load speed**, with 99% statistical significance).





Moreover, Blast was able to establish confidence in the impact to average revenue per user, as the model shows a jump in average revenue per user (**\$3.27 increase**, with 91% statistical significance) at the time the recommendations were implemented.

Finally, in analyzing revenue performance we are able to see a positive impact on daily revenue (**\$3,101 increase**, with 73% statistical significance).



While the confidence level is not as high as it was for other metrics, this is likely due to external factors, such as seasonality, also having an impact on overall revenue. Still, the confidence level is higher than 50% statistical significance (mere chance). Ultimately, pairing this analysis with the significant increase in MoM revenue seen in Google Analytics for the organic channel lends greater confidence in these results. Specifically, it provides additional rigor to the insight that page speed improvements had a positive impact on key business metrics for the organic channel.

Final Thoughts

For more than 20 years, Blast has partnered with a variety of leading brands. The most common mistake we've seen brands make is not taking action on the insights they receive to improve their digital experience. In the end, these brands fail to recognize the return on investment from their efforts.

In this case, the NSI team did an excellent job in taking fast action on key insights, which drove the positive impact on the business outcomes highlighted above.

Interested in Working with Blast?

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