

V I S E N Z E

Simplifying the Visual Web

The ROI of Using Visual Search Technology for E-Commerce



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INTRODUCTION

Calculating ROI of Visual Search Technology: Not a Loch Ness Monster

You've heard about the Loch Ness Monster, right?
Or of any other cryptids or mythical creatures -
say, the Big Foot, the Kraken, mermaids?

Now, measuring the ROI (return on investment) for the implementation of a new technology for your company may seem like one of these creatures - stuff that everyone talks about but no one has ever captured successfully.

As the need for system integrations increases, the pressure to demonstrate "real" positive ROI becomes paramount.

With regards to the measurement process, the difficulty that most companies encounter here is twofold:

people are not sure of what to measure,
and they don't know how to measure.

But we are going to provide you with an easy step-by-step guide on working out the ROI of using visual search technology for your e-commerce business.

Let's get started.

1

ROI: Getting the basics right: The formula for ROI

The basic ROI calculation is to divide the net return from an investment by the cost of the investment, and to express this as a percentage:

$$\text{ROI \%} = \frac{(\text{Return} - \text{Investment Cost})}{\text{Investment Cost}} \times 100$$

For example, if I spend \$50 and make \$75, my net return is \$25.

$$\text{ROI \%} = 25/50 \times 100 = 50\%$$

This figure proves to corporate executives, shareholders, and other stakeholders in your organization that your proposed expenditure on visual search technology is beneficial for the business.

Understanding Benefits and Costs of Visual Search Technology



Benefits

Linking visual search technology use cases with their benefits

Visual search as a core technology is able to power different use cases on an e-commerce platform.

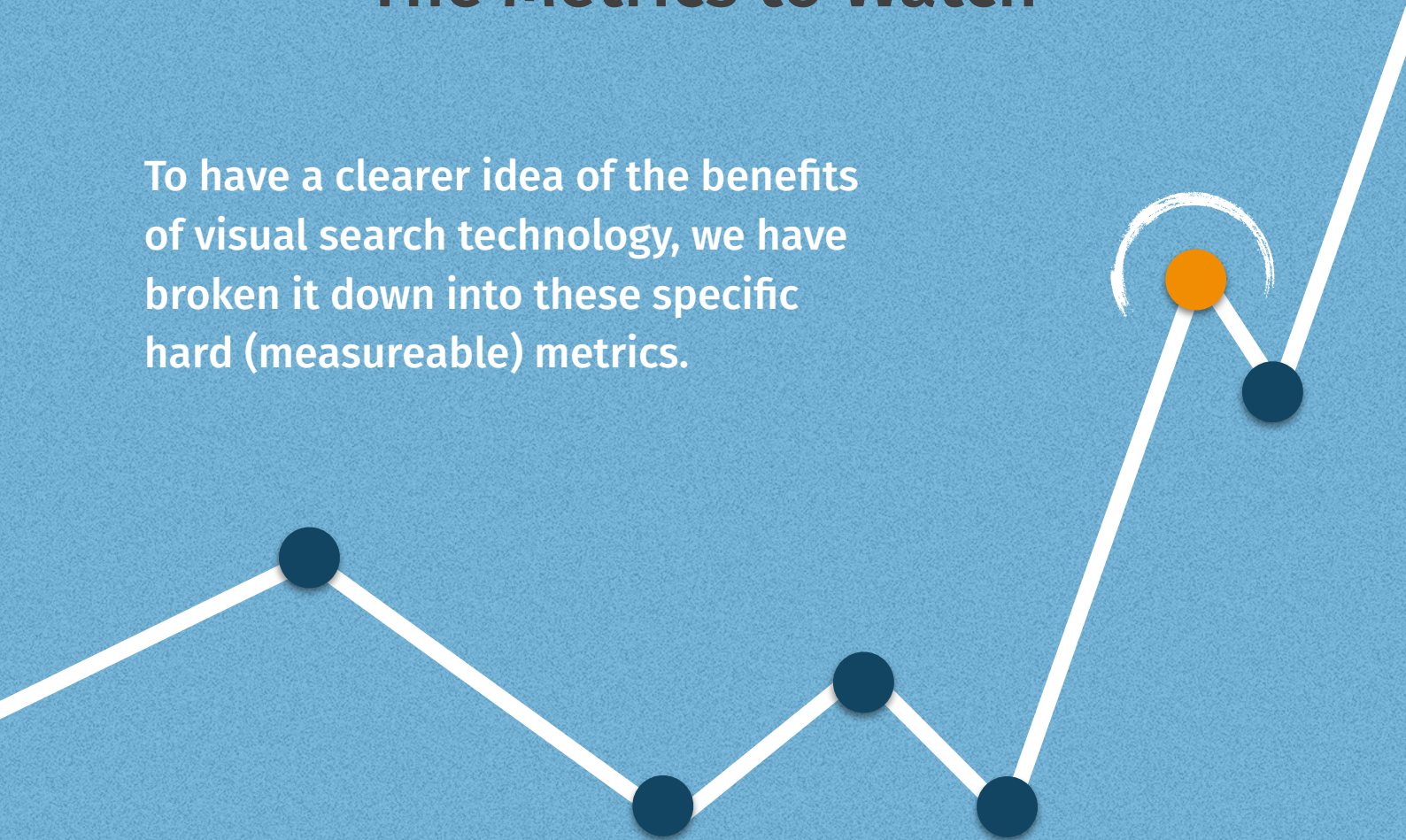
For example, here's a simple breakdown of what ViSenze visual search technology can bring to the table.

| Use Case | What it does | Benefits |
|--------------------------|--|--|
| Upload Search | Allows your consumers to search by using an image instead of keywords. The query image can be uploaded or inserted via an URL. The results return visually similar items in the product catalog based on attributes such as color, shape, patterns and more. | <ul style="list-style-type: none">• Increase consumer satisfaction by surfacing relevant results easily.• Decrease time spent by consumers who are searching for a specific type of item. |
| Find Similar | Presents visually similar items when the consumer would like to do a deep dive on a particular product. | <ul style="list-style-type: none">• Increase engagement by allowing consumers to narrow down their search by easily refining preferences. |
| You May Also Like | Recommends products alongside the one your consumer is currently viewing, based on visually similarity and metadata. | <ul style="list-style-type: none">• Increase conversion rates by making sure consumers don't hit any dead end and always find something they like. |
| Shop The Look | Allows your consumer to pick a photo from a curated gallery populated with user-generated content, crop to zoom in on a particular item in the picture, and search for visually similar products available on your site. | <ul style="list-style-type: none">• Increase conversion rates by making the path from inspiration to purchase smoother and shorter. |
| Mix & Match | Suggests complementary products to complete the look when the consumer is uploading a photo of a fashion item item. | <ul style="list-style-type: none">• Increase basket size by recommending complementary items and suggested pairings. |

To see these use cases in action on various web and mobile e-commerce platforms, visit [ViSenze's Youtube Channel](#).

The Metrics to Watch

To have a clearer idea of the benefits of visual search technology, we have broken it down into these specific hard (measureable) metrics.



1

Conversion rate

An increase in conversion rate is the ultimate metric that justifies the implementation of visual search technology to your e-commerce site, as it directly influences your revenue.



However, the conversion rate is also dependent on the following factors:

2

Click through rate (CTR)



The CTR definitely shows intent of diving deeper into a particular product or category, thus reflecting how engaging your product offering is.

It also sheds light on whether the product recommendations use cases (such as You May Also Like and Find Similar features) are working well to present relevant search results to your consumers.

If they conduct searches without clicking on any of the similar items recommended, that should raise a red flag.





3

Basket size

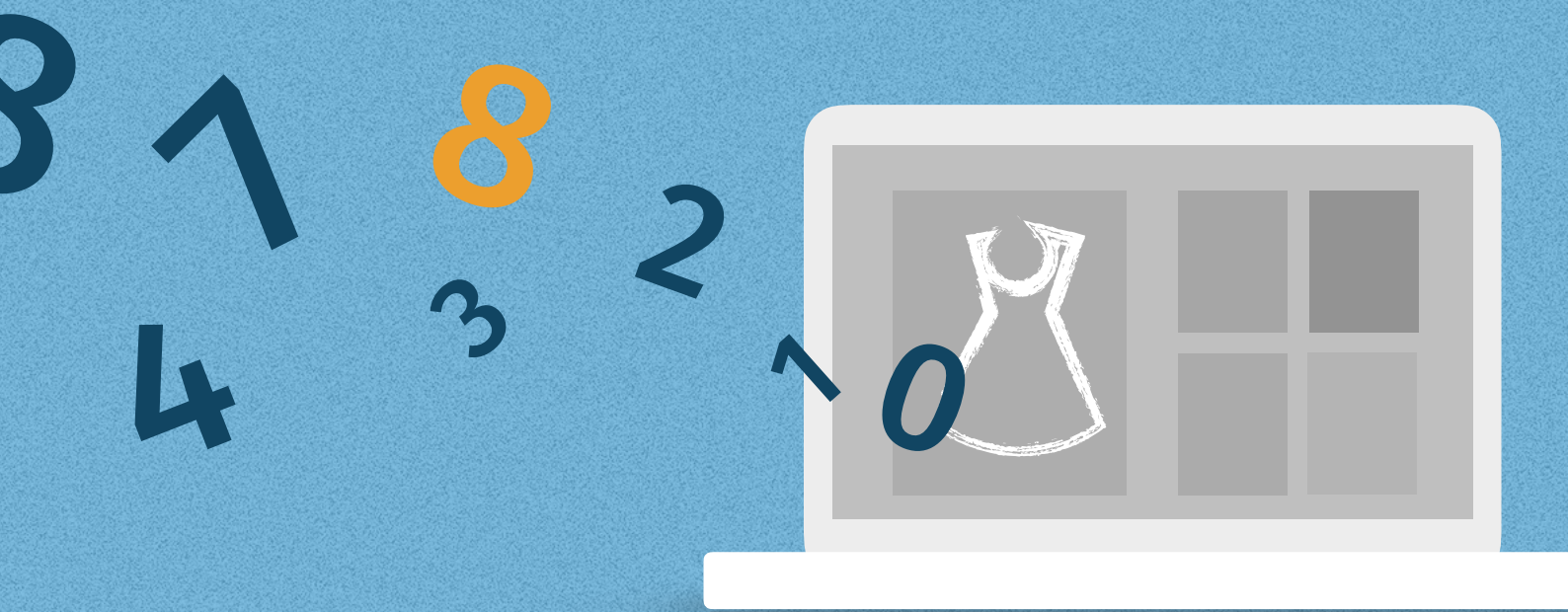
This metric is closely associated with visual search technology use cases such as Mix & Match and Shop The Look.

By suggesting additional products on top of what your consumers are choosing to view on your platform, visual search technology helps to increase average basket size, which contributes to increased sales and revenue.



4

Product view numbers



A reflection of the visual search technology's ability to present relevant results, product view numbers show the degree of consumer engagement on your site.

This is also an important metric for marketplaces or e-tailers with a huge range of products across many different brands.

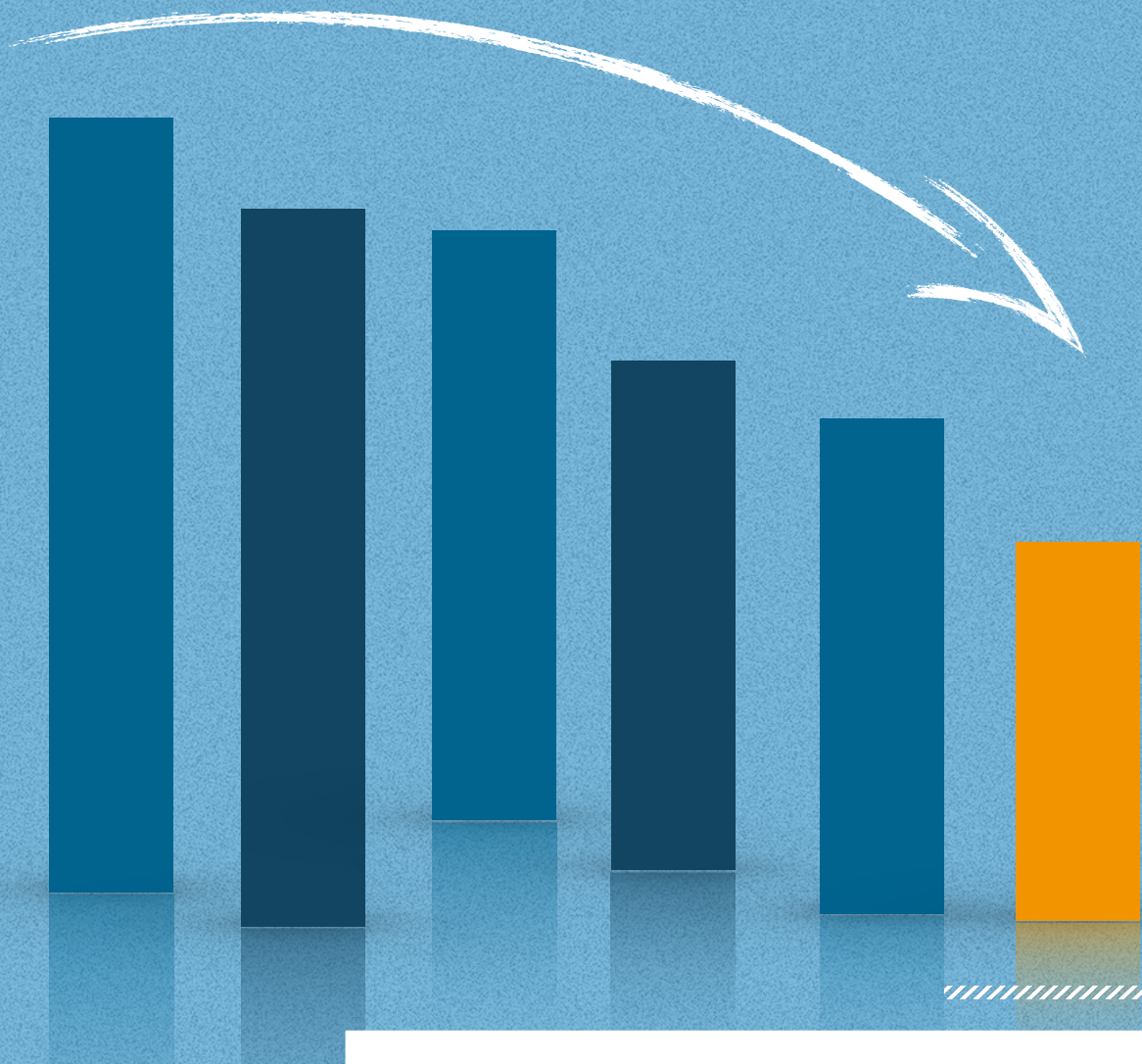
From this metric, you would be able to tell if the software brings your long tail catalog up without any biasness on product popularity ie. where products that get surfaced to the top are the most visually similar or relevant, regardless of how many times they have been purchased before.

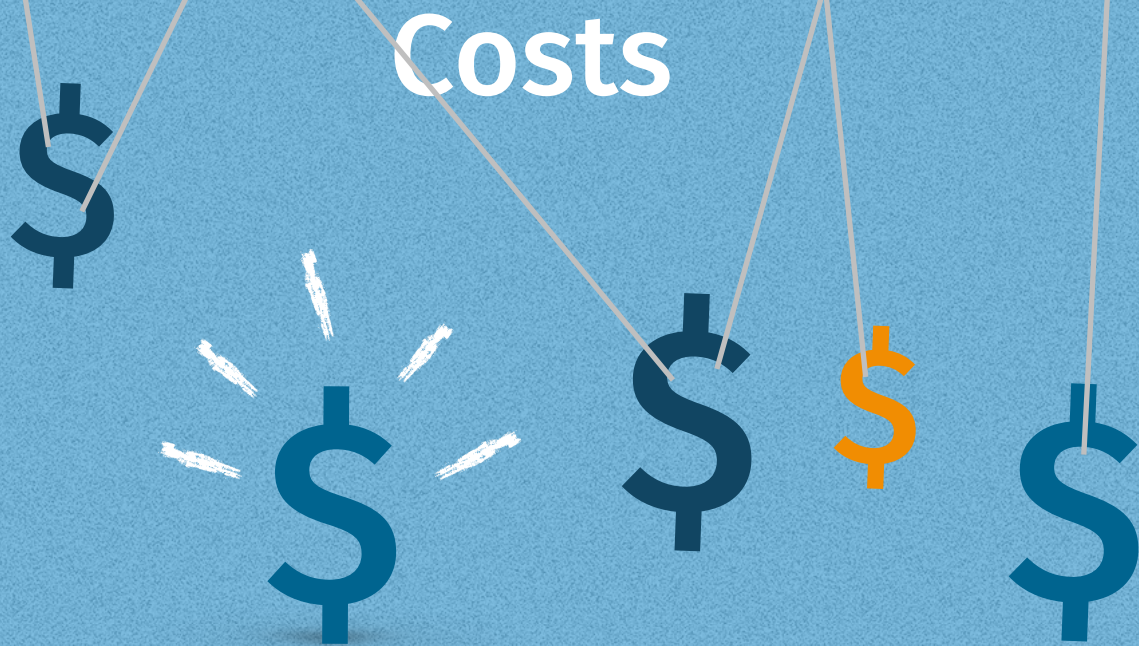


3

Bounce rate and exit rate

From these figures, you would be able to tell the engagement level of consumers. Visual search technology helps them find items they like with ease, which should decrease average bounce rate and exit rate on product pages (and the lower the better).





Usage costs

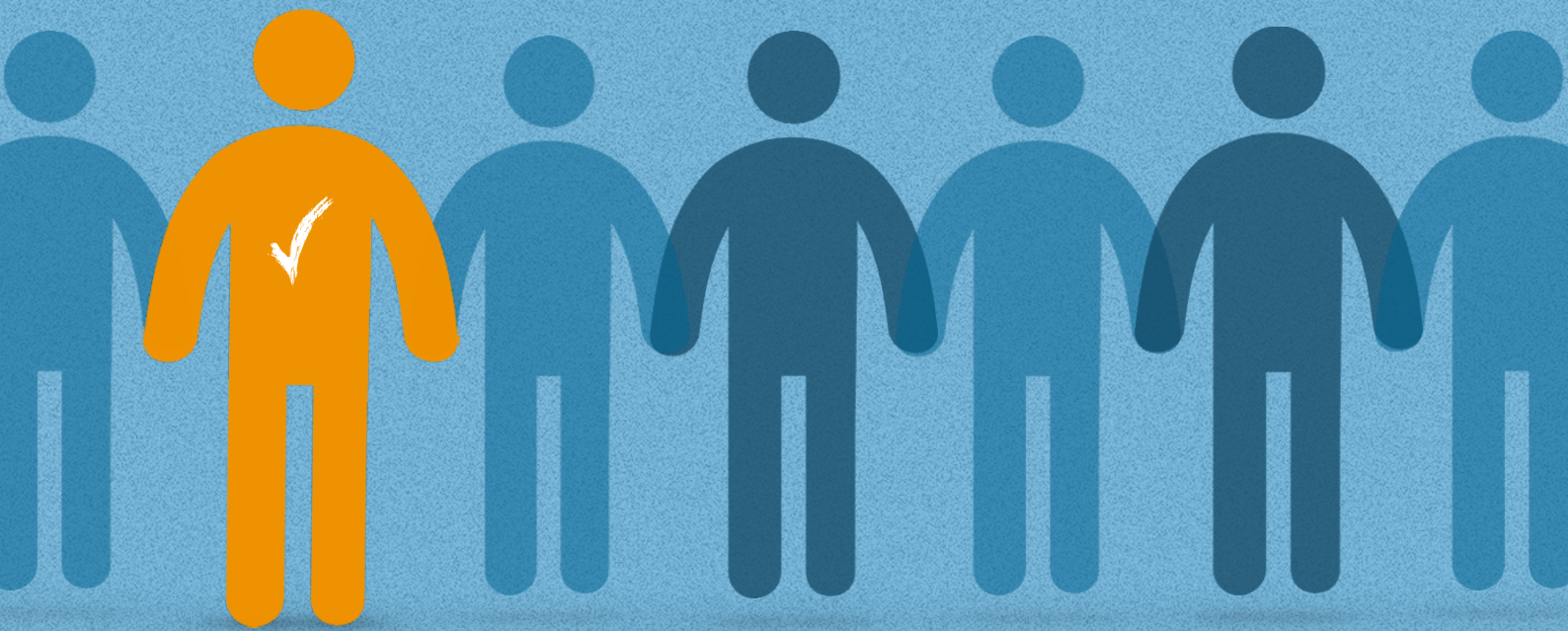
The cost of purchasing visual search software for your e-commerce site depends on the pricing model offered by your technology provider and the use cases you pick.

Price plans may be based on the volume of usage and the size of your database.

For example, at ViSenze, we offer **dynamic monthly or annual subscription** plans that suit companies of every shape and size. The plan includes a predictable component based on your image database size, and a pay-as-you-go element that depends on the volume of usage.

Integration effort

Most visual search technology providers offer APIs that work in the backend of your platform to perform all needed actions. Displaying the visual search results also requires interface changes on your web or mobile platform.



Setting up an integration between your system and visual search technology APIs will take a number of hours, while user interface modifications can take up to a few days or weeks, depending on the complexity of the use case.

For this, you will need in-house engineers and UX designers, or you can outsource the process to system integration or web development agencies. At ViSenze, we have shortlisted a few agencies that can help you integrate our visual search technology with your e-commerce platform or even build one for you.



Database maintenance

You should get a Data API documentation from your visual search provider. This will allow you to keep your database in sync automatically over time: if you add or remove inventory, the visual search API will know how to modify results accordingly.



3

Soft ROI: Additional benefits of visual search technology



Also known as intangibles or soft metrics, these benefits don't show up in traditional cost-accounting methods (as opposed to the hard metrics) but they truly make a difference in maximizing the economic potential and business performance of your organization.

Many of these (such as customer experience and satisfaction, usability of your site, brand value, productivity and efficiency, and many more) are tough to quantify, but all are important to a company's success and should be weighted in any technology decision.

Below are some questions to guide you in determining the qualitative ROI of your current or prospective visual search technology investment:

- Will the technology enhance your customer experience on your e-commerce platform?
- Are you offering an easier product discovery process for your consumers by increasing search efficiency and reducing search wastage?
- Will adopting visual search technology make you more competitive in the marketplace?

If you can answer yes to these questions, the qualitative ROI for visual search software for your company is high.

***Psst..Speaking of increasing search efficiency and reducing time and effort spent on the search process, we have conducted our own experiment to explore the effectiveness of visual search vs. keyword search.**

Our results were pretty amazing - we found out that our visual search technology managed to beat the traditional keywords search process by 1/9th of the time spent searching and people were wowed!

[Read more about our experiment here.](#)



4

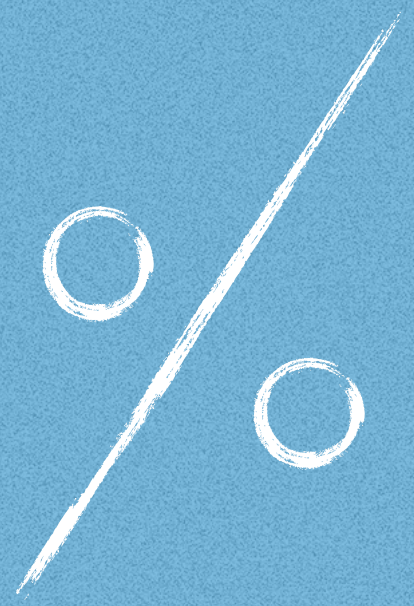
A/B testing: Maximizing your ROI

After implementing visual search technology to your platform, you can move on to maximize ROI by conducting A/B testing.

Start off by establishing your benchmark or baseline before the implementation process. Then release the feature to a sample of your customers and do A/B testing on them - what is the difference in uplift in conversion rate on your e-commerce site with and without the visual search technology?



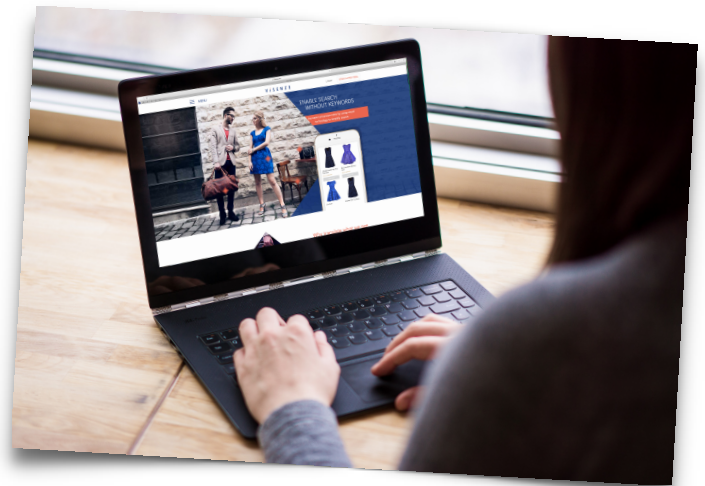
What you should be looking out for is the percentage of users using the new feature, whether their steps to purchase have been shortened, and whether visual search enhances the discovery and browsing of products on your site.



Keep testing and experimenting your platform - not just with or without the visual search feature, but also the function's placement and position on your site page. Ask questions like where do your consumers convert? On which part of the page is there better engagement?

So what's next?

Have a look at how our customers have applied our visual search technology to their database to get some inspiration on how it can work for yours!



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