



Digital Presence

Visual Search



Transforming Browsing into Buying at the Speed of Sight!

CH.1

Picture this: It's the year 2040. You're sitting by your panoramic smart-glass window, watching hover-cars drift past in the night sky. Your neighbor steps onto their balcony with a sleek, chrome telescope that glows with pulsing constellation lights, and you need one for yourself immediately. By tapping the temples of your augmented reality (AR) glasses, the product is instantly scanned and identified.

Once you confirm that the product scanned is the telescope you saw in person, it populates into your digital home-tech wishlist and generates made-to-order variations with upgraded optics, artificial intelligence (AI)-powered celestial tracking, and adaptive stargazing lenses. AI also grades the device with an innovation score and provides suggested accessories based on your browsing and purchase history. Through your AR glasses, you can see three retailers with the telescope in stock in your city of Moon Town. But before ordering it, you can test it through an immersive virtual astronomy simulation, seeing exactly how it would project stars across your social, virtual reality (VR), and gaming platforms.

What you just experienced is the magic of visual search — seamlessly turning what you see into what you can buy. And while this concept seems like something straight out of a science fiction book, it's already starting to make waves in the retail industry, helping to reshape how consumers discover and purchase products. Today, certain mobile applications allow instant product identification from customer photos. For example, some major retailers' apps allow customers to not only identify their products but also find similar products in their inventory by snapping a picture, [according to Retail Dive](#).

With visual search quickly staking its claim as a critical tool that gives retailers a competitive edge, it will soon become the primary gateway to product discovery. Retailers that invest in platforms that support image-based product discovery have seen average sales increases of 15%, [according to ASD Marketweek](#).

Visual search offers retailers the opportunity to transform browsing into buying at the speed of sight — while also delivering a hyper-personalized shopping experience. Looking ahead, the bridge between online and offline purchasing experiences will be even more advanced and seamless. Retailers may someday be able to tap into new forms of sensory data, allowing consumers to smell a fragrance or feel a fabric texture directly through their mobile devices. Visual search is one of several strategic innovations that retailers are using to engage customers in more interactive and immersive ways.

As product discovery moves toward visual-first and other sensory experiences, retailers that adopt the technology sooner will outpace their peers still relying on one-dimensional, text-based search.



Phones as Shopping Detectives for Visual Search

CH.2

To capture customer dollars, retailers must evolve alongside consumers' expectations for instant, visual, and mobile-first experiences. The prominence of social channels like Instagram and TikTok have accelerated "mobile first" behavior, especially with shopping which has gained popularity on these platforms.

Today's consumers prioritize convenience and immediacy. Visual search serves these behaviors by removing the friction and uncertainty that comes with product discovery via text search. Traditional text search forces customers to translate visions into words. Visual search eliminates the need to type out a detailed description of the desired item, then comb through endless results hoping one of them correctly identifies the initial query — a process that often fails to capture consumers' initial intentions and can lead to missed sales opportunities.

From the customer side, this may be due to the fact that they cannot articulate a precise description of the product, whereas for retailers, their product data may lack the rich, descriptive tagging that text search requires. The inconveniences and pitfalls of traditional search mean that retailers who choose to integrate and cater to visual search will likely see positive business results.

The ease that visual search offers consumers will likely result in less cart abandonment, converting more searches into sales. When the path to purchase is shorter and has less friction, shoppers are more inclined to complete the process. The technology can also help reduce return rates by helping customers find products that more accurately match their expectations.

Visual search also captures purchase intent from consumers who have trouble describing the coveted product, learning individual style preferences through image interactions. This intelligence enables hyper-personalization which enhances customer experience. This trend is already taking shape through style-matching algorithms that analyze visual signals to predict demand and strengthen product recommendations.

As the shift toward visual-first search is accelerating amid rising consumer expectations around convenience, brands must quickly embrace the new tool. To keep pace, retailers should consider strengthening and organizing their product data to ensure visuals are accurately tagged and discoverable. Retailers who establish a strong foundation and continuously fine-tune their product data today will be best positioned to compete in an image-driven marketplace.



Breathing New Life into Product Images

To successfully incorporate visual search into their future-proofing strategies, retailers must have strong data infrastructure before implementation.

Retailers should implement precise tagging and annotation so AI systems can effectively identify, search, and categorize product information in ways that align with the consumer's needs. The visual search experience should be designed with a holistic, omnichannel vision, maintaining consistency across all customer touchpoints.

By annotating product images with descriptive details, retailers enable AI to search and match relevant product results to customer requests. This includes assigning labels to images to provide context — such as color, material, shape, and style. For example, a retailer tagging a pair of sunglasses should specify the lens color, rim color, frame material, lens shape, and style category.

Other annotation techniques include defining boundaries and segmentation on images, which are intended to enhance the accuracy of recognizing the context within images. There are a number of automated annotation tools that augment the human effort required in annotation. Ultimately, annotation is critical in building and training intelligent systems equipped with visual search for long term success.

Without the proper data infrastructure, visual search implementation may not translate to meaningful business impact. Enriched catalogs, systematic tagging, and continuous annotation processes are critical for retailers to capture the attention of visual-first shoppers while building a strong foundation to remain competitive over time.

Retailers who need help with assessing their data and technology strategy for visual search should consider working with a third-party advisor.



Unlock the Potential of Your Product Data with BDO

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Visual search represents an opportunity for retailers to accelerate product discovery and improve customer conversion rates. But to realize ROI, a data-driven approach to implementation will be essential.

[BDO Digital](#) professionals bring deep experience in data management, AI implementation, and retail technology transformation. Our team can conduct readiness assessments to evaluate data quality to help strengthen product catalogs and image libraries and support more accurate visual search results.

We also help retailers pilot visual search solutions that align with their products and customers, allowing for testing and refinement before full deployment. Throughout your organization's digital transformation journey, we can also support change management initiatives, including human-in-the-loop processes and helping your workforce trust and collaborate with new AI systems.

Our [Digital Transformation and AI consulting services](#) help retailers navigate the technical complexities of visual search implementation. From data management to implementation and change management, BDO Digital provides end-to-end support for your retail organization's journey toward future-proofing.



An illustration of a person with brown curly hair, wearing a maroon t-shirt and blue pants, standing and looking through a green telescope mounted on a black tripod. The telescope is pointed towards the upper left. The background is a dark blue night sky with several yellow stars. A diagonal white line runs from the bottom left towards the center. The bottom right corner features a red triangle containing the BDO logo.

Ready to redefine how your customers search, see, and shop?

ABOUT BDO'S RETAIL & CONSUMER PRODUCTS PRACTICE

BDO has been a valued business advisor to retail and consumer products companies for more than 100 years. The firm works with a wide variety of clients across the traditional retail, consumer product and ecommerce sectors, ranging from multinational Fortune 500 corporations to emerging businesses, on myriad accounting, tax and advisory issues.

BDO USA, P.C.

Our purpose is helping people thrive, every day. Together, we are focused on delivering exceptional and sustainable outcomes and value for our people, our clients and our communities. BDO is proud to be an ESOP company, reflecting a culture that puts people first. BDO professionals provide assurance, tax and advisory services for a diverse range of clients across the U.S. and in over 160 countries through our global organization.

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