

Key conversion challenges and digital innovations in eyewear e-commerce

Global e-commerce has become a huge force in the last few years. When it comes to eyewear, however, online conversion rates tend to be way smaller. In developing markets, such as China, e-commerce eyewear sales have reached 23% of total eyewear purchases. In Europe, online eyewear sales accounted for only 14% of total market purchases in 2020 (Statista, 2022), suggesting that customers still prefer to shop for glasses in-store. The share of online shopping is, nevertheless, predicted to continue to grow. 57.6% of eyewear-wearing respondents to our research stated that they would buy eyewear online, indicating that there is an immediate growth opportunity once challenges are tackled.

What to expect

This whitepaper presents our research findings on five key conversion challenges in eyewear e-commerce and proposes four solution directions that effectively tackle the challenges customers face when purchasing glasses online.

We discovered that most customers face challenges when buying prescription eyewear or sunglasses online. Customers seek personal style advice, want to better understand how glasses look in terms of size and fit, require accurate prescription information regarding their own eyes, face an overload of choices, and are hesitant regarding shipping and return policies. Only 0.3% of respondents indicated that they faced no challenges at all, whereas 72.5% faced at least three out of the five challenges.

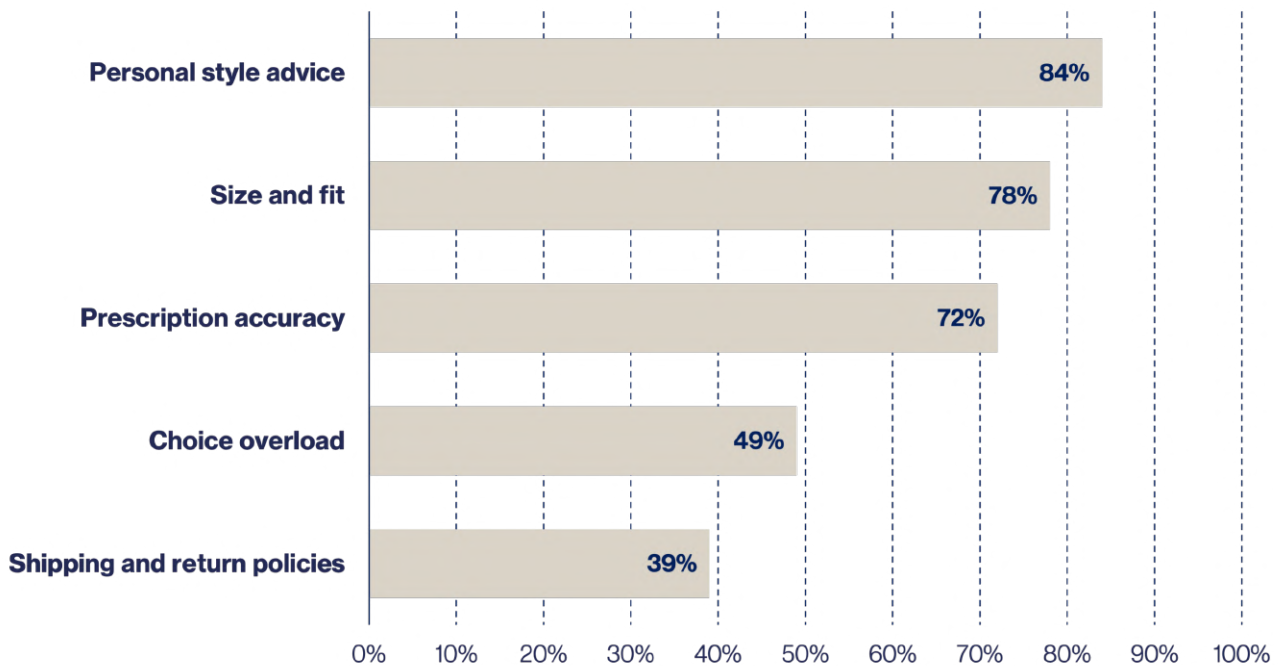
Most e-commerce-based solutions can tackle one or two of the top five challenges to help increase conversion. AI-driven product recommendations that match the customer's facial features and personal style can reduce the choice overload and help customers find the right frame for them so they can make conscious and confident purchase decisions.

5 key eyewear e-commerce conversion challenges

The research presented in this whitepaper was conducted using an online survey regarding key conversion challenges, answering “Which of the following challenges holds you back from buying eyewear online?”.

The quantitative research regarding the five key conversion challenges was conducted among 1032 respondents, predominantly based in Europe, and took place in 2023. Participating respondents were further requested to briefly elaborate on their answers, providing a richer understanding of the challenges at hand. The five key challenges inquired about specifically were derived from a series of qualitative surveys among fifty respondents.

While other, more generic e-commerce challenges like an unclear check-out flow emerged, we have chosen to focus on the challenges specifically related to buying eyewear online.



Personal style advice

83.5% of respondents indicated that the lack of feedback online hinders them from buying eyewear online. Receiving expert support and feedback on what looks best for them is what customers rely on in in-store retail or optician settings, helping eyewear shoppers make confident decisions.

While some eyewear e-commerce companies offer do-it-yourself manuals on how to analyse one's own facial features and discover a matching shape type, personalised guidance from an expert point of view considering styling and personality is what respondents miss online.

Size and fit

78.2% of respondents stated that they are hesitant to purchase glasses online due to their inability to determine how a particular pair of glasses would sit on their face.

Having the correct eyewear frame size can ensure the proper fit and comfort of the glasses. Respondents indicated that they would consider it unreliable to base the fit off a photograph of the frame online and that the numbers specifying the frame, bridge width, and leg length expressed in mm are unrelatable to their own facial features.

Prescription accuracy

72.4% of respondents are sceptical about the accuracy of eyewear prescriptions when shopping online. According to the American Optometric Association (AOA), nearly half (44.8%) of online eyewear purchases resulted in erroneous prescriptions or did not adequately cover the safety components of a comprehensive medical eye examination.

As such, customers tend to rely on in-store professionals and opticians when it comes to prescription measurements. Prescription accuracy, or the lack thereof, matters less for sunglass sales online, as it is often the case that most sunglasses are not sold with prescription lenses.

Choice overload

48.8% of respondents regard choice overload as a major challenge when buying eyewear online. Whether online or in-store, customers have dozens of frames to choose from. Whereas product filters could help customers reduce the number of frames, they often do not narrow the collection to the right dimension and place the burden of scaffolding on the customer themselves.

In e-commerce, where the offerings of different, sometimes niche brands go beyond what is commonly offered in-store due to its lack of physical space limitations, the collection and its longtail can easily become overwhelming on long product listing pages. Customers seek clear product suggestions that match, rather than going through endless pages of frames, overcomplicating the search and buying process.

Shipping and return policies

39.2% of respondents are concerned about the shipping and return policy when shopping for eyewear online. This demonstrates that some customers may abandon a purchase if they are dissatisfied with the shipping and return terms or if policy information is insufficient, though such worries are significantly less likely to impede eyewear e-commerce conversion rates.

While eyewear e-commerce is on the rise, most customers do face challenges when buying prescription eyewear or sunglasses online. Only 0.3% of respondents indicated that they faced no challenges at all, whereas 72.5% faced at least three out of the five challenges, both numbers evidencing that a lot has to improve for a seamless customer buying journey in eyewear e-commerce.

As such, it is no surprise that the conversion rate in eyewear e-commerce (ranging from 0.5% to 1.5%) is remarkably lower than that in other industries (2.5% to 3% benchmark). Given that customers do buy eyewear online, often overcoming the challenges on their own, and the innovative digital solutions for eyewear e-commerce available, an increase in online purchases can be expected.

4 solutions to improve eyewear e-commerce conversions

Quite a few eyewear e-commerce players already leverage standard e-commerce tactics to reduce the high customer abandonment rate and increase the conversion of their prescription eyewear and sunglasses sales. Below, we briefly discuss four digital solutions across the customer journey that could address the conversion challenges posed earlier.

	Product filters	Prescription measurements	Virtual try-ons	Product recommenders
Personal style advice				++
Size and fit		+	++	+
Prescription accuracy		+	+	
Choice overload	+			++
Shipping and return policies				

Product filters

Product filters and re-order functions on product list pages have been common on all kinds of e-commerce sites. They help customers sort products by, for example, price and narrow down a collection based on colour, brand, or product categories and features.

For eyewear e-commerce, common filters are frame colour, shape, material, brand, size, and price, helping customers browse and discover products accordingly. Product filters can certainly relieve the choice overload barrier to some extent by cutting down on frame options; however, they don't necessarily help customers make confident purchases.

Product filters require the necessary frame data available in product information management (PIM) systems. Reformatting frame data to a single customer-facing form is often required, as frame data is often provided by various brands in different formats. In other words, eyewear e-commerce needs to converge different formats when creating product data and do so in a way that it is usable to customers.

Our analysis shows that customers are not capable of dealing with dozens of filter options, arguing that e-commerce needs to limit, for example, the colours presented in a filter. On the other hand, when a customer kind of knows what they are looking for, more generic labels like red will not help the customer who seeks a very specific burgundy.

In short, filters and product sorting offer means for customers to narrow in on a specific selection, yet it does not help them figure out what looks good on them and what fits in terms of size when customers do not yet know what they need.

Online prescription measurements

When it comes to prescription accuracy, most e-commerce optical websites offer customers the option to select the type of lenses and to submit their prescription information and pupillary distance.

According to Luna, 90% of customers are not aware of their pupillary distance (PD). Some optical websites thus provide customers with online tools that automatically measure PD in just a few steps. Solutions such as online vision exams claim to offer customers accurate eye prescriptions from the comfort of their own homes. Most online tests can be completed in less than 10 minutes, and the only equipment needed is usually a smartphone, computer, or both. However, comprehensive eye exams require specific medical equipment and vastly outperform online eye exams, which cannot fully replicate the scope and precision of an in-person examination.

Although online examination tools can be an efficient alternative for some customers buying eyewear online, there are some limitations, like, for example, distortion of the camera lens or a slight mismatch of measurements, which can result in an incorrect prescription. For now, e-commerce is probably best off enabling customers to fill out prescription data gathered offline or renew a previously established medical prescription.

Virtual try-ons

Virtual try-on experiences, or VTOs, help customers see how a frame would look on them—a try-before-you-buy or digital mirror of sorts. They let customers experience on their computer or smartphone how a frame would look on their face. Industry-leading virtual try-on providers Fittingbox and Luna claim to increase conversion rates about three times as virtual try-on experiences can improve customers' confidence by allowing them to visualise the glasses on their own faces, just like they would at an optical store in front of a mirror.

Solution providers offer virtual try-ons in various forms and granularities, from 2D images and animated clips to real-time 3D, from low-quality to highly immersive experiences. Pertinent to starting with a VTO is the digitalisation of frames in 3D or on the basis of product images.

Although VTO tools integrated into an e-commerce website can certainly ease the size and fit conversion challenge, customers still experience a lack of personal style advice; they have to figure out what looks good on them themselves. VTOs help customers try glasses digitally, but which one should they choose to try, and which ones look great?

Product recommendations

Generic product recommenders based on search or buying behaviour, driving conversion rates up to 70% higher in many industries (Monetate, 2018) make little impact in the eyewear industry. With relatively long cycles of buying new prescription glasses, little can be learned from past purchases. Similarly, little can be learned from other people with similar behaviour because eyewear in general is not purchased based on indicators of buying behaviour but on facial features and style preferences.

According to McKinsey, hyper-personalised tools contribute to a higher level of customer engagement as customers expect such personalised offers (Lindecrantz et al., 2020). Hyper-personalisation is forecasted as one of the most crucial technology-driven innovations in fashion to provide one-on-one individual experiences and build customer loyalty (Amed & Berg, 2022)

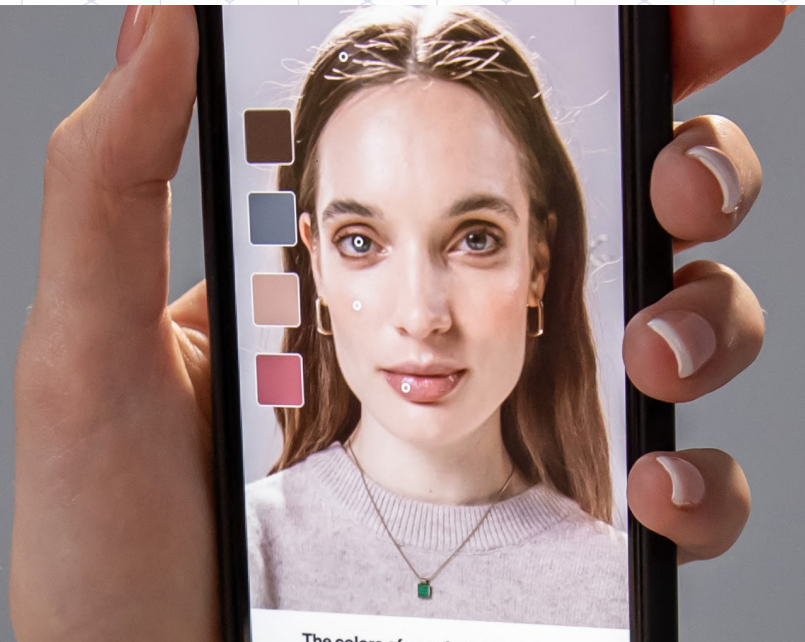
Next-level artificial intelligence-driven product recommenders do just that, as they consider the facial features and personalities of customers in hyper-personalised ways. With these innovative digital solutions, which serve as digital stylists, online eyewear retailers can offer more personalised experiences, helping customers discover prescription eyewear and sunglasses that truly match individual customers. They help customers discover what looks good on them, what fits in terms of size, and reduce choice overload before a customer can try a pair of glasses with a virtual try-on. Our STYLE PTTRNS digital stylist or eyewear recommender has proven to triple conversion rates (on top of the impact of virtual try-ons).

As online eyewear retail channels are forecast to expand together with global eyewear markets (Research & Markets, 2002), identifying and tackling the biggest conversion challenges in eyewear e-commerce has become vital to propelling that growth. Although there is no universal solution that can address all the challenges hindering conversion rates for online eyewear retailers, virtual try-on tools together with AI-driven personalised product recommendations and the application of filters can help overcome the conversion challenges that currently hinder the online eyewear industry.

Offering customers professional and personal style advice online, a practical virtual try-on experience, and a seamless customer journey will help customers make confident and conscious purchase decisions, increasing conversion.



Try the digital stylist



About PTTRNS.ai

With artificial intelligence, we accelerate digital personalisation for fashion and eyewear companies.

With our solution STYLE PTTRNS opticians, brands and eyewear retailers can recommend frames that match the customers facial features and personalities. A digital stylist, seamlessly integrated into the omnichannel shopping experience. We've helped increase conversion by 2 to 4 times across online and in-store solution applications.

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