Industry Report on the Eyewear Market

Macroeconomic Context and Consumer Demographic Trends

Global economic momentum is being driven by emerging markets, particularly those in Asia, such as India and Southeast Asia, where sustained GDP growth, rising disposable incomes, and digital adoption are shifting consumption patterns and catalysing retail expansion. Amongst developed markets, Japan is exhibiting stability, underpinned by sustained consumption, while growth in Singapore is driven by its advanced services economy. In the Middle East, economic diversification and growing affluence are evolving consumption patterns across both high-income and aspirational consumers. Emerging markets are closing the digital gap with developed markets, leading to higher consumption, especially in lifestyle categories. Lifestyle-led discretionary spending and omnichannel retail adoption are rising across both emerging and developed markets, as consumers increasingly prioritise style, quality, and convenience in their purchase journeys.

Global Macroeconomic Outlook

Rising Gross Domestic Product (GDP) and Incomes

Global economic activity is projected to remain resilient over the next five years, underpinned by sustained momentum in emerging Asian markets. Within the region, India and emerging Southeast Asian[1] markets are becoming increasingly integrated into global supply chains, supported by continuing investment in transportation corridors, renewable energy, and digital infrastructure, which in turn is fostering an expanding, mobile-centric consumer base. India is projected to reinforce these trends at scale, as policy reforms, broad-based infrastructure programmes, and the high adoption of digital consumer platforms and digital public infrastructure continue to elevate productivity and domestic consumption. According to IMF, India is positioned to become the world's third-largest economy by CY 2029P, with nominal GDP projected to exceed ₹ 525 trillion (~US$ 6,100 billion).

Among developed markets, Japan is projected to have incremental gains driven by premiumisation, automation, and digitisation, while Singapore's economy is projected to expand driven by its advanced services economy and its role as a regional financial and innovation hub. Meanwhile, the Middle East[2] is witnessing economic diversification across non-oil sectors such as clean energy, logistics, retail, and tourism, while an increase in household spending towards both premium and aspirational consumers support a gradual broadening of its consumption base.

Rising Disposable Incomes are Driving Higher Consumption

Rising GDP is driving higher disposable incomes leading to shifts in consumer spending across regions. Historically, surpassing a GDP per capita of ₹ 1,72,000-2,58,000 (US$ 2,000-3,000) has catalysed higher discretionary spending. India crossed the ~₹ 1,72,000 (~US$ 2,000) threshold in CY 2019 and since then has witnessed a PFCE growth of ~11% between FY 2020-25, despite the COVID-19 disruption, with ~61.5%[3] of GDP being driven by PFCE as of FY 2025. With GDP per capita levels projected to reach ~₹ 3,49,383 billion (~US$ 4,063) by CY 2029P, the share of the middle-income households and above[4] in India's population is projected to increase from ~63% in CY 2024 to ~73% in CY 2029P, which will further boost discretionary consumption in India.

In Southeast Asia, emerging markets benefit from a high PFCE[5] share and consumption growth is projected to be driven by increasing digitisation and organisation of the retail market. In developed markets such as Singapore, growth is driven by higher incomes, rising digital adoption, and premiumisation. In other developed Asian markets such as Japan, stable income trends continue to drive high levels of discretionary spending, making PFCE[5] a central pillar of economic activity. In the Middle East, a growing affluent consumer group is influencing consumption habits, with private consumption gaining economic prominence as the region moves towards more diversified spending patterns.

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[1] Southeast Asia includes emerging markets of Indonesia, Malaysia, Philippines, Thailand and Vietnam and developed market Singapore

[2] The Middle East includes Saudi Arabia and United Arab Emirates (UAE)

[3] As per Second Advanced Estimates by Ministry of Statistics and Program Implementation (MOSPI)

[4] Defined as households with annual income of more than US$ 3,488

[5] PFCE or Private Final Consumption Expenditure refers to capital expenditure incurred by the resident households and non-profit institutions serving households on final consumption of goods and services, whether made within or outside the economic territory

Exhibit 1a: Real GDP Growth - India and Key Geographies
CY 2024 to CY 2029P, in %

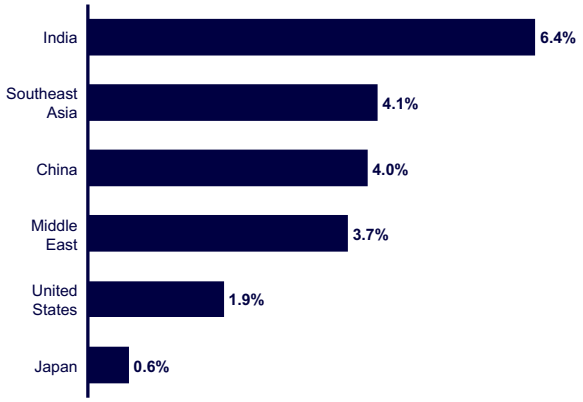
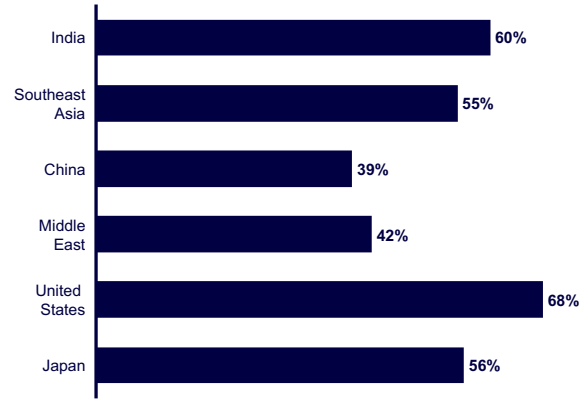


Exhibit 1b: Private Final Consumption Expenditure (PFCE) % of GDP - India and Key Geographies
CY 2023, in %



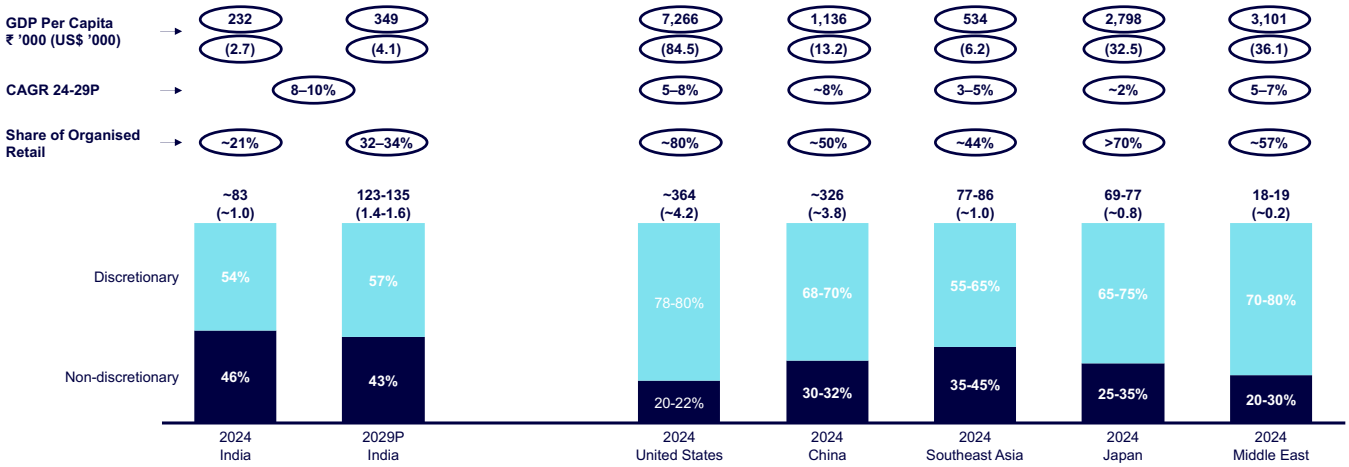
Note(s): 1. Southeast Asia includes Indonesia, Malaysia, Philippines, Singapore, Thailand, and Vietnam
2. The Middle East includes Saudi Arabia and the UAE
3. PFCE refers to expenditure incurred by the resident households and non-profit institutions serving households on final consumption of goods and services, whether made within or outside the economic territory
Source(s): IMF World Economic Outlook, April 2025, World Bank, Redseer research & analysis

Rise of Discretionary Retail Consumption and Organisation of the Retail Markets

India is one of the fastest-growing retail markets, driven by increasing organisation of the market and the rising share of discretionary retail. India's retail market growth is underpinned by urbanisation, rising disposable incomes, and a large, technology proficient young population driving greater adoption of standardised and quality-driven products. Further, the relatively lower share of both organised and discretionary retail in India (when compared with more developed markets) suggests headroom for growth.

In Southeast Asia, retail organisation is being driven by deployment of omnichannel strategies, the integration of unified payments and last-mile logistics, which are collectively broadening access and reach of organised players. In Japan, a mature and resilient retail market continues to record incremental gains, supported by stable household spending, premiumisation across discretionary categories, and the digital enhancement of convenience and department-store networks. Meanwhile, in the Middle East - a young, digitally engaged consumer base, together with sustained investment in destination malls, lifestyle districts, and mixed-use commercial developments, is driving a shift toward higher-value, experience-led retail supporting long-term growth.

Exhibit 2: Retail Market by Discretionary and Non-Discretionary and Share of Organised Retail - India and Key Geographies
CY 2024, in ₹ trillion (US$ trillion), Splits and Share of Organised Retail in %



Note(s): 1. Considering exchange rate of US$ 1 = ₹ 86
2. Southeast Asia includes Indonesia, Malaysia, Philippines, Singapore, Thailand, and Vietnam
3. The Middle East includes Saudi Arabia and the UAE
4. Discretionary expenditures include spending on categories such as FMCG (excl. staples), apparel, eyewear, consumer electronics, consumer appliances, general merchandise, and beauty & personal care (BPC), among others. These tend to have cyclical demand, fluctuating with economic conditions
5. Non-discretionary expenditures encompass spending on essential categories such as pharmaceuticals, staples and fresh food, which are less sensitive to economic changes
Source(s): IMF World Economic Outlook, April 2025, UN World Population Prospects 2024 (Medium Variant), Redseer research & analysis

Emerging Consumer Trends

Lifestyle Focused Consumption is on the Rise with Higher Discretionary Consumption and Growing Awareness Among Consumers

Increasing discretionary spends, driven by rising disposable incomes and social media awareness, are leading to increased consumption of lifestyle categories. These categories form a large subset of discretionary retail and typically include apparel, footwear, accessories, eyewear, and beauty & personal care - products closely tied to personal style and self-expression. As social media and digitisation broaden access and expand the reach of lifestyle brands, consumers are becoming fashion and value-conscious, prioritising both style and quality at affordable prices in their purchases. This is evident from the increasing adoption of fast fashion globally which has resulted in increase in the number of items owned per user across categories such as apparel, accessories and footwear.

Rise of Value Retail and D2C Brand Prominence in Retail

Value retail is gaining prominence in India, driven by consumer demand for affordable pricing, broad assortments, and accessibility across retail categories. This model traditionally is being increasingly enabled by direct-to-consumer[6] (D2C) brands. Through direct sourcing arrangements and reduced reliance on traditional intermediaries, these brands are able to lower costs, maintain tighter control over product and pricing, and offer competitive value to consumers. Their digital-first approach and owned retail presence further support discovery-led purchase journeys aligned with the needs of value-conscious shoppers.

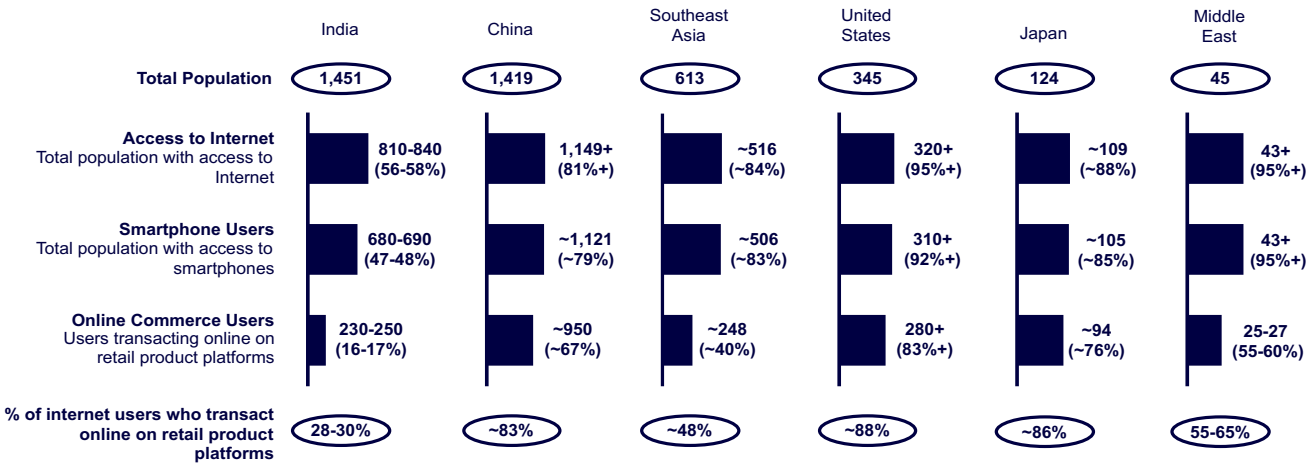
Rise of Digital Penetration

Emerging markets are closing the digital gap with developed markets. In India, large growth in internet users has been fuelled by the expansion of the mobile network and low-cost data, supported by government initiatives. Driven by these factors, India's internet user base is projected to grow steadily to reach more than 1 billion users by CY 2029P with a per capita GDP of ₹ 3,49,383 (~US$ 4,063), significantly ahead of the trajectory of other economies at similar income levels.

Increased digital penetration leads to higher consumption by fuelling product and brand awareness, influencing purchase preferences purchase frequency, and improving conversion rates, particularly in lifestyle categories where consumer purchase journey begins with exploration and discovery. As of CY 2024, India had a large portion of 'digitally influenced' customers (who browse online but do not transact online). Higher digital penetration is also visible across Southeast Asia, the Middle East, and Japan, driven by distinct underlying factors. In emerging markets in Southeast Asia, a young, digitally enabled and mobile-first population is fuelling social commerce-led growth in the online retail market; in the Middle East, strong government-led digital initiatives are accelerating adoption; while in Japan and Singapore, a mature internet ecosystem is seeing renewed digital retail growth through convenience-driven innovation and offline-to-online integration.

Exhibit 3: Consumer Internet Funnel - India and Key Geographies

CY 2024, in Million (% of total population)



Note(s): 1. The Middle East includes Saudi Arabia and the UAE
2. Southeast Asia includes Indonesia, Malaysia, Philippines, Singapore, Thailand and Vietnam
Source(s): Redseer research & analysis

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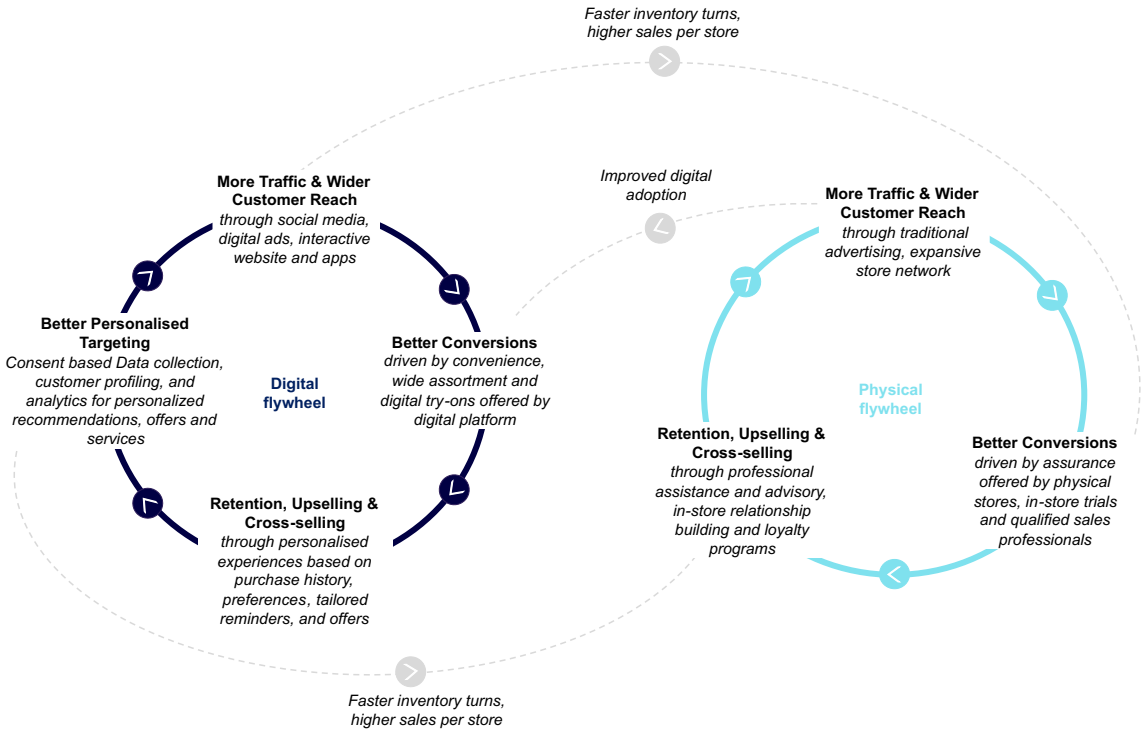
[6] Business model where companies sell their products or services directly to customers online or through their own stores, without relying on intermediaries, such as wholesalers, retailers, or distributors

Shift to Digitally Influenced, Omnichannel Purchase Journeys Led by Digital-First Omnichannel Brands

Globally, digitally influenced spending has been increasing, driven by the growing penetration of internet and smartphone usage, rising engagement on digital platforms, and the increasing role of online search and discovery in purchase decisions. Digital exploration plays a major role in shaping consumer choices, especially in lifestyle categories, reinforcing the need for brands to establish a strong presence across discovery channels.

Driven by these tailwinds, omnichannel retail[7] is gaining prominence, as consumers are increasingly expecting flexibility and convenience in their shopping journeys. Brands are expanding both online and offline touchpoints, catering to varied preferences and vertical-specific requirements. Omnichannel retail models are growing in broadly two ways – flexible purchases (online or offline shopping) and integrated purchases (online research and offline validation). Consumers can choose to buy either online for value, convenience and variety, or offline for instant access and physical inspection. This dual approach allows brands to cater to both convenience-driven shoppers and those seeking in-person assurance. Further, unlike multi-channel retail, where online and offline experiences remain fragmented, omnichannel retail ensures an integrated journey – from product discovery to post-purchase engagement.

Exhibit 4: Omnichannel Flywheel - Mutual Reinforcement between Digital and Physical Channels
Illustrative for Eyewear



Source(s): Redseer research & analysis

Core Demand Drivers for Prescription Eyeglasses[8]

Globally, refractive errors have become a public health challenge due to evolving lifestyles (particularly increasing screen time, reduced outdoor time, higher air pollution in urban areas, poor dietary practices and shorter sleep cycles), coupled with an ageing population. The global incidence of refractive errors has risen from ~45% of the world population in FY 2020 (i.e., ~3.5 billion individuals) to ~49% in FY 2025 (i.e., ~4.0 billion individuals) and is projected to reach ~55% by FY 2030P (i.e., ~4.7 billion individuals). India and Southeast Asia together contribute to ~30% (i.e., ~1.2 billion individuals) of the global population affected by refractive errors as of FY 2025, with refractive error incidences of ~53% and ~65% of the total population in these regions, respectively. Despite their high contribution to the global prevalence of refractive errors, the penetration of prescription eyeglasses in these markets remains low at ~35% and ~40% of total refractive error incidences respectively, as of FY 2025, primarily due to limited awareness, insufficient access to optometrists and stores, high dependency on unorganised channels, and lack of affordability. In Japan, increasing prevalence of presbyopia coupled with increasing penetration of affordable prescription eyeglasses, especially by direct-to-consumer (D2C) brands, is driving both penetration and growth. While in the Middle East, growth is driven by the increasing frequency of purchase of prescription eyeglasses. This increasing frequency reflects not just medical need but also rising lifestyle orientation of the category.

[7] Omnichannel retail strategy integrates online and offline shopping experiences for an uninterrupted consumer journey

[8] Prescription eyeglasses refer to eyewear designed to correct vision based on a prescription, consisting of frames and corrective lenses tailored to the wearer's needs, includes computer glasses and zero-power eyeglasses

Refractive Errors are a Global Public Health Challenge

Types of Refractive Errors

Refractive errors are a silent modern-day global public health challenge, often unnoticed since eyesight deterioration occurs gradually, making changes difficult to detect. Additionally, without a clear reference for normal vision, many remain unaware they have impaired eyesight. Growth in refractive errors is driven largely by rising cases of myopia, presbyopia, hyperopia, and astigmatism. Myopia (near-sightedness) blurs distant objects due to eyeball elongation, linked to excessive near-work and less outdoor time. Hyperopia (far-sightedness) makes close-up focus difficult due to a shorter eyeball, causing eye strain. Presbyopia, an age-related condition, reduces the eye's ability to focus on nearby objects as the lens loses flexibility, often requiring reading glasses. Astigmatism, from an irregular cornea or lens, distorts vision at all distances, leading to discomfort and headaches.

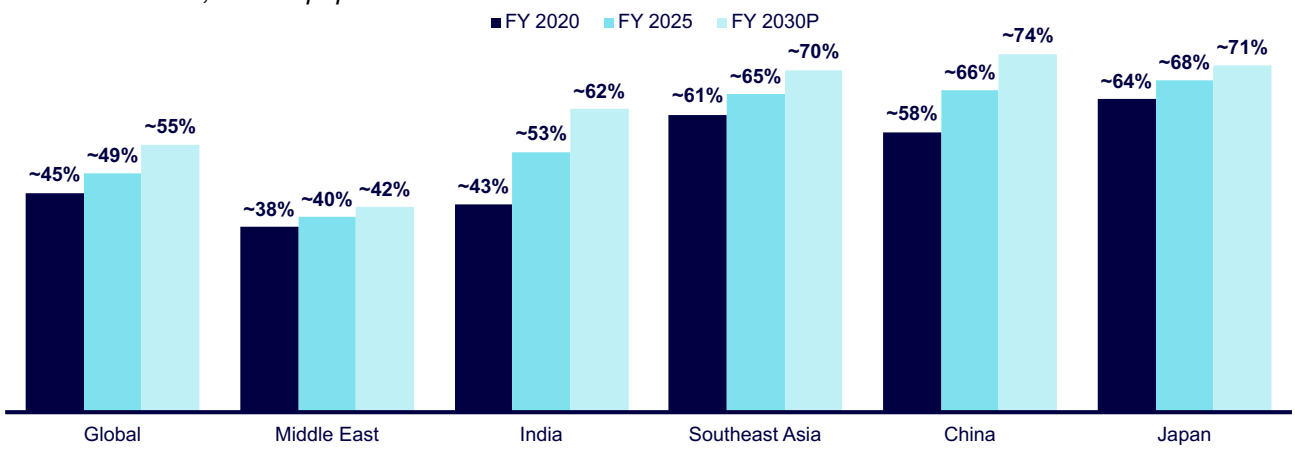
Incidence and Evolution of Refractive Errors

According to the "World Report on Vision" by the World Health Organization (WHO) published in October 2019, ~2.6 billion individuals were estimated to be affected by myopia and ~1.8 billion individuals by presbyopia. As per WHO estimates, these figures are projected to grow to ~3.4 billion and ~2.1 billion for myopia and presbyopia respectively by CY 2030P. Given the overlaps between incidences of both myopia and presbyopia and accounting for other refractive disorders such as hyperopia and astigmatism, the number of individuals with refractive errors globally is estimated to be ~3.5 billion (~45% of total population) in FY 2020. The incidence of refractive errors has increased to ~4.0 billion (~49% of total population) in FY 2025 and is further projected to increase to ~4.7 billion (~55% of total population) by FY 2030P.

Asia has the highest contribution to the global population with refractive errors and in India alone, the number of individuals affected by refractive errors has increased from ~590 million (~43% of the population) in FY 2020 to an estimated ~777 million (~53% of the population) in FY 2025, and is projected to rise to ~943 million (~62% of the population) by FY 2030P. This trajectory of increasing refractive errors in India is similar to Asian markets such as China with a lag of ~8 years. Further, markets such as Japan and Southeast Asia have also recorded a steady increase in incidences, with projections indicating higher incidences by 3-5% over the next five years (FY 2025-30P). Singapore and Japan have among the highest incidences of refractive errors globally at ~75% and ~68% of the population, respectively, as of FY 2025.

Globally, refractive errors have become a public health challenge due to evolving lifestyles, coupled with an ageing population. Refractive errors due to lifestyle changes amongst young adults, teenagers, and children can be attributed to increased screen times, reduced outdoor activities, higher air pollution in urban areas (reducing natural-light exposure), and shorter sleep cycles. Additionally, genetic predisposition remains a factor, with a family history of refractive errors increasing the likelihood of developing such conditions.

Exhibit 5: Prevalence of Refractive Errors over Time in India and Key Geographies
FY 2020-FY 2030P, in % of population



Note(s): 1. Southeast Asia includes Indonesia, Malaysia, Philippines, Singapore, Thailand and Vietnam
2. The Middle East includes Saudi Arabia and the UAE
3. Includes individuals with one or more refractive errors - major ones being myopia, hyperopia, presbyopia and astigmatism
Source(s): Redseer research & analysis

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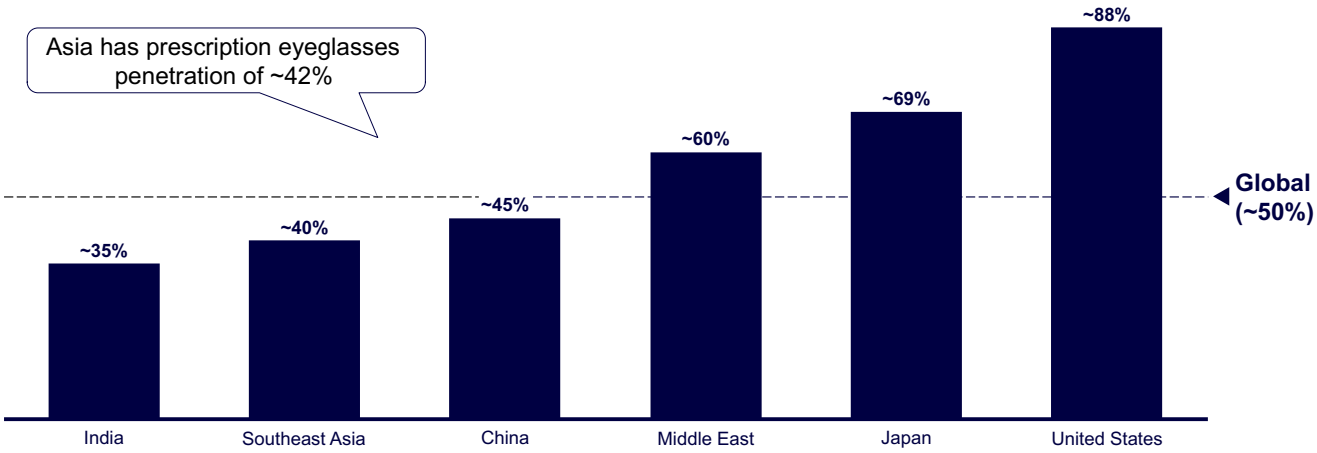
Penetration[9] of Prescription Eyeglasses

As of March 31, 2025, ~4 billion individuals globally require vision correction for refractive errors. However, only ~2 billion individuals (~50% of refractive error incidences) use prescription eyeglasses, primarily due to a lack of awareness and limited access to affordable products. Additionally, a limited fraction of the population with refractive errors also uses contact lenses for vision correction. Developed markets such as Japan and the United States have higher prescription eyeglasses penetration rates at ~69% and ~88% of the refractive error incidences, respectively, as of FY 2025, driven by better awareness, accessibility and affordability. Meanwhile, India lags with a penetration of ~35% of total refractive error incidences, Metro[10] cities have a higher penetration at ~53% of refractive error incidences, while penetration drops to ~32% of refractive error incidences, among individuals residing in Tier 2+[10] cities/regions, underscoring the need for increased awareness, accessibility and affordability of prescription eyeglasses. The out-of-pocket, cash-pay nature for prescription eyeglasses often delays or discourages adoption. However, rising penetration of vision and general health insurance, particularly through employer-sponsored and government schemes, is beginning to increase penetration of prescription eyeglasses.

Penetration in Southeast Asia remains slightly higher than in India at ~40%, while that in the Middle East remains moderate at ~60% of refractive error incidences as of FY 2025, driven by higher awareness of refractive error correction solutions, disposable incomes, and better access to prescription eyeglasses.

Exhibit 6: Penetration of Prescription Eyeglasses in India and Key Geographies
FY 2025, in % of total refractive error incidences



Note(s): 1. Southeast Asia includes Indonesia, Malaysia, Philippines, Singapore, Thailand and Vietnam
2. The Middle East includes Saudi Arabia and the UAE
Source(s): Redseer research & analysis

Exhibit 7: Key Metrics for Prescription Eyeglasses in India and Key Geographies
FY 2025, 2030P

Parameters	Global	India		Southeast Asia		Japan		Middle East	
	FY 2025	FY 2025	FY 2030P	FY 2025	FY 2030P	FY 2025	FY 2030P	FY 2025	FY 2030P
Population (Mn)	~8,200	~1,454	~1,516	~614	~634	~124	~120	~45	~49
Prevalence of Refractive Errors (%)	~49%	~53%	~62%	~65%	~70%	~68%	~71%	~40%	~42%
Population with Refractive Errors (RE) (Mn)	~4,000	~777	~943	~401	~445	~84	~85	~18	~21
Penetration of Prescription Eyeglasses (%)	~50%	~35%	~41%	~40%	~44%	~69%	~64%	~60%	~64%
Population with Prescription Eyeglasses (Mn)	~2,000	~274	~385	~161	~197	~58	~54	~11	~13
Population with RE but without Prescription Eyeglasses (Mn)	~2,000	~503	~558	~240	~248	~26	~31	~7	~8

Note(s): 1. Southeast Asia includes Indonesia, Malaysia, Philippines, Singapore, Thailand and Vietnam
2. The Middle East includes Saudi Arabia and the UAE
Source(s): UN World Population Prospects 2024 (Medium Variant), Redseer research & analysis

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[9] Penetration of prescription eyeglasses refers to the ratio of people wearing prescription eyeglasses to people with refractive errors

[10] Refer to glossary for definition of Metro, Tier 1 and Tier 2+ cities/regions

Financial and Productivity Impact of Refractive Errors

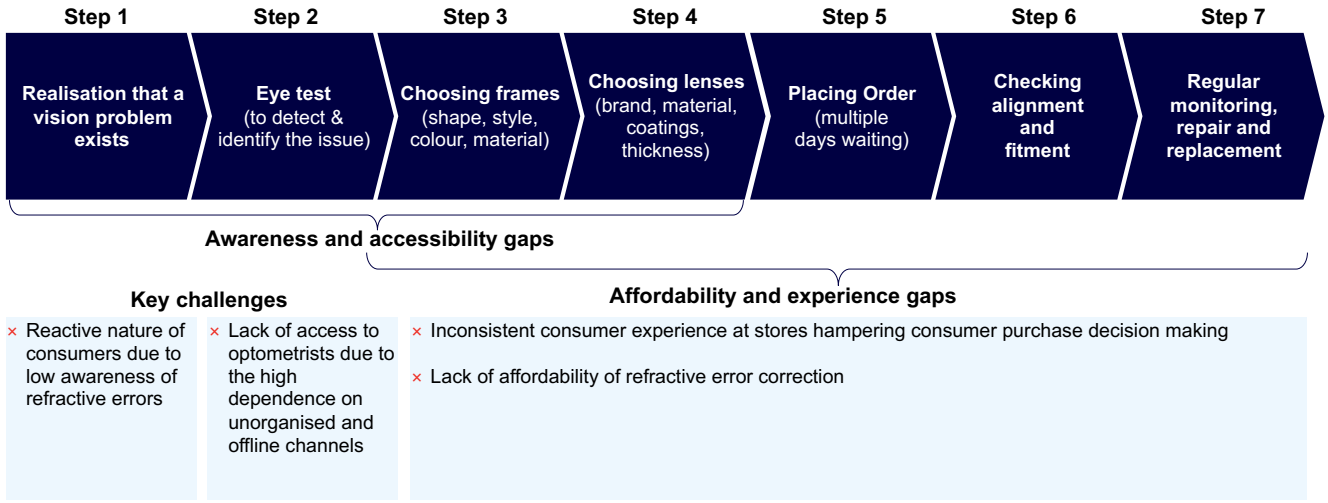
Untreated refractive errors have high financial and social costs, especially in labour-intensive sectors where vision issues reduce worker efficiency, increase error rates, and heighten safety risks. This not only affects individual earnings but also results in productivity losses at scale, placing a burden on national economies. According to the WHO Q&A on refractive errors, updated in August 2024, global economic losses due to uncorrected refractive errors are estimated to be more than ~₹ 21,500 billion (~US$ 250 billion) annually. Asia is estimated to account for 50%+ (i.e., ₹ 10,750-12,900 billion (US$ 125-150 billion)) of the global economic losses, with India's annual economic losses estimated at ₹ 2,580-3,870 billion (US$ 30-45 billion). Providing access to prescription eyeglasses, particularly in rural and lower-income areas, can enhance student performance, workplace efficiency, reduce healthcare costs and unlock economic benefits making policy intervention crucial to support inclusive growth.

Reasons for Limited Adoption of Prescription Eyeglasses and Evolution over Time

The typical refractive error correction journey should ideally begin with an eye test, which involves detecting and identifying potential refractive errors, followed by purchasing eyeglasses (which itself involves choosing frames and lenses separately, placing the order and waiting for fulfilment, followed by checking for alignment and fitment), regular monitoring of eye health, and repair and replacement of prescription eyeglasses.

Exhibit 8: Consumer Journey for Refractive Error Correction

Descriptive



Source(s): Redseer research & analysis

These gaps in the consumer's refractive error correction journey globally are further expanded below:

Reactive Nature of Consumers due to Low Awareness of Refractive Errors, especially in India and Emerging Southeast Asian Economies

Eyewear penetration in India and emerging Southeast Asian economies remain low due to a lack of awareness and accessibility, and a reactive approach to refractive error correction. Unlike Japan and developed Southeast Asian economies such as Singapore, where regular eye tests drive early identification and diagnosis, refractive error correction in India and emerging Southeast Asian economies is often delayed until impairment is noticed. Further, there still exists a social stigma around wearing eyeglasses, where eye defects are often perceived negatively, discouraging timely vision correction. While challenges persist, increasing awareness driven by social media, growing store density, and policy initiatives are gradually improving penetration. Providing access to free eye testing is a critical first step toward raising awareness about vision correction and encouraging the adoption of prescription eyeglasses.

Lack of Access to Optometrists in India, Emerging Southeast Asian Economies, and the Middle East

The World Council of Optometry (WCO) recommends an optimal benchmark of 100 optometrists per million of the country's population to ensure adequate eye care services. India, emerging markets in Southeast Asia, and the Middle East are actively working towards strengthening optometry coverage through increasing investments in healthcare infrastructure, tele-optometry solutions, and policy initiatives such as the Indian government's National Programme for Control of Blindness and Visual Impairment (NPCBVI), and the World Health Organisation's (WHO) SPECS 2030 initiative. In parallel, large organised eyewear players are increasingly stepping in to address the gap through retail network expansion, in-house optometrists, and remote optometry. The introduction of remote optometry, in particular, improves the utilisation efficiency of optometrists and accessibility for customers.

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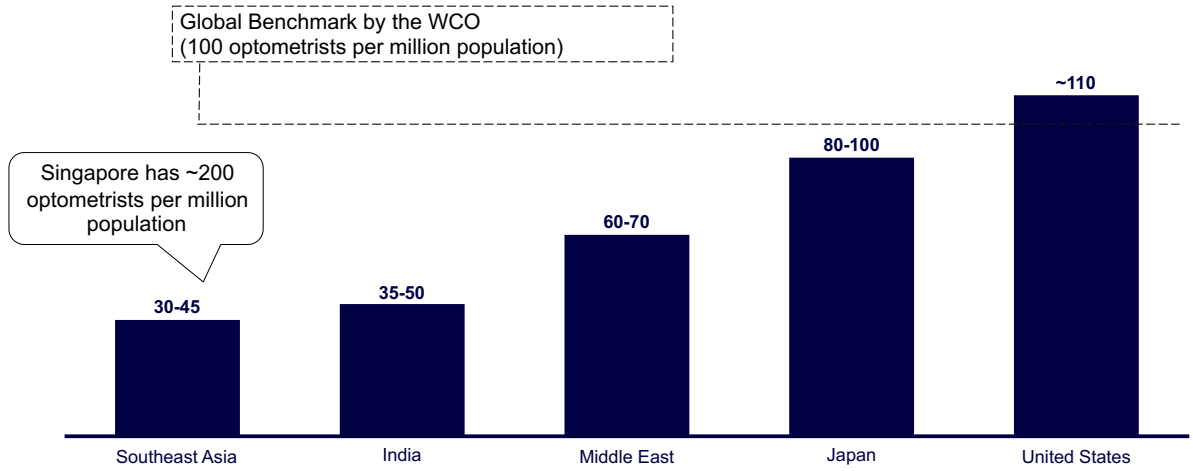
Exhibit 9: Number of Optometrists per Million Population in India and Key Geographies
FY 2025



Note(s): 1. Southeast Asia includes Indonesia, Malaysia, Philippines, Singapore, Thailand and Vietnam
2. The Middle East includes Saudi Arabia and the UAE
3. WCO stands for World Council for Optometry
Source(s): Redseer research & analysis

Limited Accessibility due to Low Optical Store Density in India and Emerging Southeast Asian Economies

Prescription eyeglasses penetration remains constrained by the low density of optical stores, influencing accessibility. Emerging markets in Southeast Asia have fewer than 100 optical stores per million population. This gap is compounded by considerable latent demand coming from first-time users, making adoption dependent on physical access. Further, optical store density in India, with only ~60 optical stores per million population, is below store densities across most other retail categories in India, such as pharmacy, electronics, fashion, or jewellery, many of which are also further supplemented by online channels. Meanwhile, online eyewear retail in India remains relatively nascent, reinforcing the dependence on physical outlets.

Optical retail requires infrastructure such as diagnostic equipment, and edging and fitting machinery, which increases setup and operating costs (compared to other retail formats) and compounding this is the limited availability of skilled professionals. Limited availability of qualified optometrists not only inflates hiring costs but also makes staffing expansion across geographies logistically difficult. Similarly, trained personnel for on-site lens cutting and fitting are in short supply, creating further bottlenecks in delivering quick and accurate prescription fulfilment. This gap highlights a challenge - limited store presence with high operational costs and skill gap, fragmented supply chains, and weaker unit economics restrict consumer access to high-quality refractive error correction solutions.

Exhibit 10a: Number of Optical Stores per Million Population in India and Key Geographies
FY 2025

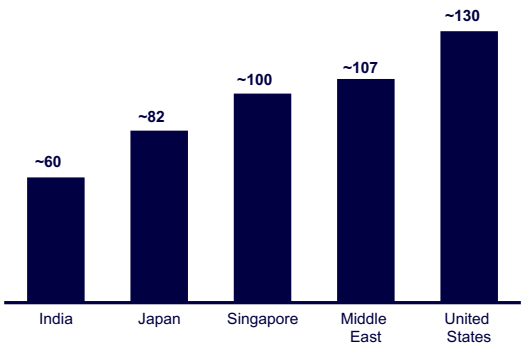
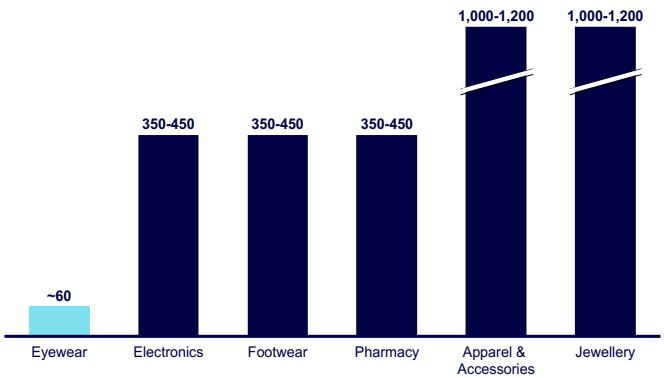


Exhibit 10b: Number of Stores per Million Population in India - Select Categories
FY 2025



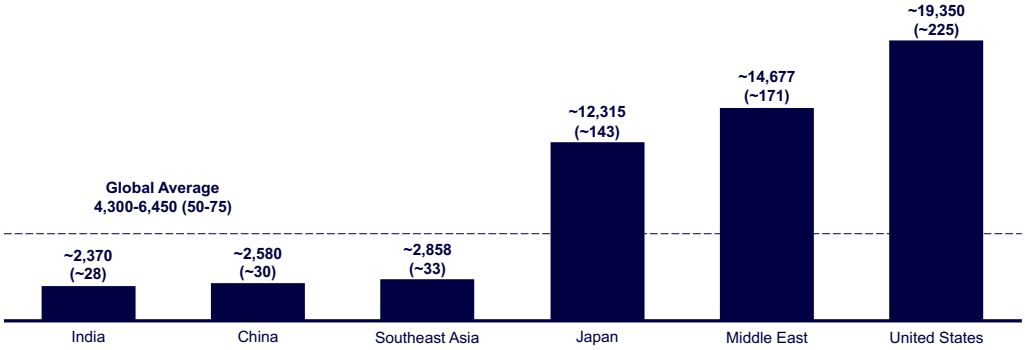
Note(s): 1. The Middle East includes Saudi Arabia and the UAE
2. Eyewear shops consist of establishments retailing prescription eyeglasses, contact lenses and sunglasses
3. Electronics shops consist of establishments retailing home appliances and consumer electronics
4. Jewellery shops consist of establishments selling gold, diamond, silver, platinum, and other precision stones
5. Apparel and accessories shops consist of establishments selling cloth, cut pieces, ethnic wear, footwear, garments, and innerwear
Source(s): Redseer research & analysis

Lack of Affordable Refractive Error Correction in India and Emerging Southeast Asian Economies

Prescription eyeglass prices exhibit variance across geographies. In India, economy single vision and progressive eyeglasses retail for under ~₹ 1,500 (~US$ 17) and ~₹ 3,000 (~US$ 35), while luxury options exceed ~₹ 8,600 (~US$ 100). Southeast Asia sees similar thresholds at under ~₹ 1,700 (~US$ 20) and ~₹ 3,400 (~US$ 40), respectively, with luxury pairs above ~₹ 8,600 (~US$ 100). In Singapore, these rise to under ~₹ 4,300 (~US$ 50) and ~₹ 8,600 (~US$ 100) respectively, with luxury options over ~₹ 17,200 (~US$ 200). Japan's economy range extends to under ~₹ 11,500 (~US$ 134) and ~₹ 17,200 (~US$

200), respectively, with luxury glasses priced above ~₹ 28,900 (~US$ 336). The Middle East reflects higher variation, with economy options under ~₹ 7,700 (~US$ 90) and ~₹ 12,900 (~US$ 150), respectively, and luxury prices surpassing ~₹ 23,200 (~US$ 270). The average selling price for prescription eyeglasses in India and Southeast Asia remains a major expense for many requiring prescription eyeglasses, albeit lower than the global average.

Exhibit 11: Average Selling Price (ASP) of Prescription Eyeglasses - India and Key Geographies
FY 2025, in ₹ (US$)



Note(s): 1. Southeast Asia includes Indonesia, Malaysia, Philippines, Singapore, Thailand and Vietnam
2. The Middle East includes Saudi Arabia and the UAE
Source(s): World Bank, Redseer research & analysis

The lack of affordability of prescription eyeglasses limit access for many consumers across India and emerging markets in Southeast Asia. This is driven by multiple factors:

- *Concentrated global supply chain of lenses:* The global prescription lens supply is dominated by a few manufacturers from developed markets which specialise in sophisticated lens coatings, advanced surfacing techniques, and proprietary manufacturing technologies. As most emerging market retailers rely on importing these lenses, particularly for higher-index or coated variants, input costs tend to be higher. This dependence on external sourcing combined with limited local manufacturing capabilities raises retail prices. The cost impact is more noticeable for progressive lenses, which require complex optical alignment and are, on average, twice as expensive as single-vision lenses.

- *Import dependency for frames:* While frames are more widely manufactured than lenses, many branded or premium variants - particularly acetate and metal frames - are still imported through multiple intermediaries, primarily from China. This fragmented sourcing structure and reliance on brand markups further elevate retail prices, especially for players that lack direct procurement or manufacturing integration.

- *High intermediary margins:* The presence of multiple intermediaries across the traditional prescription eyeglasses supply chain cumulatively inflates retail prices, driven by distributor and retailer markups.

- *Requirement of skilled labour:* Skilled labour needs to be recruited and trained not just for general manufacturing, but for high precision, customised work that adheres to tight optical tolerances. For instance, lenses are traditionally manually cut and edged over a spinning wheel, leading to inconsistent outcomes which are highly dependent on the skill of the professional involved. Further, ongoing investment is required in labour upskilling, as outcomes vary significantly with individual skill.

- *Limited availability of skilled optometrists:* In addition to higher product costs, the limited availability of skilled optometrists across traditional retailers often leads consumers to seek testing at private clinics or hospitals, where consultation fees are higher. This drives up the cost of eye testing, an essential step in the correction journey, further amplifying the affordability challenge.

Given the recurring nature of expenses on prescription eyeglass purchases (as refractive powers change), these factors collectively make affordability a substantial concern, particularly in emerging markets. Moreover, the adoption of surgical refractive error correction procedures such as LASIK (Laser-Assisted In Situ Keratomileusis) and SMILE (Small Incision Lenticule Extraction) remain limited in these markets owing to the high cost of treatment. The cost for a LASIK procedure in India ranges anywhere between ₹ 20,640-1,03,200 (US$ 240-1,200), while that in emerging Southeast Asian markets ranges from ₹ 86,000-3,44,000 (US$ 1,000-4,000), higher than the price of a pair of prescription eyeglasses. Other factors affecting the adoption of surgical refractive error correction solutions include low perceived urgency, limited awareness, fear of surgical procedures and risks, eligibility constraints (e.g., thin corneas, dry eyes, unstable prescriptions), and uneven access to qualified eye care providers. Furthermore, surgical correction does not always eliminate the eventual need for prescription eyeglasses, particularly as vision changes with age, further dampening its perceived value in the eyes of potential patients.

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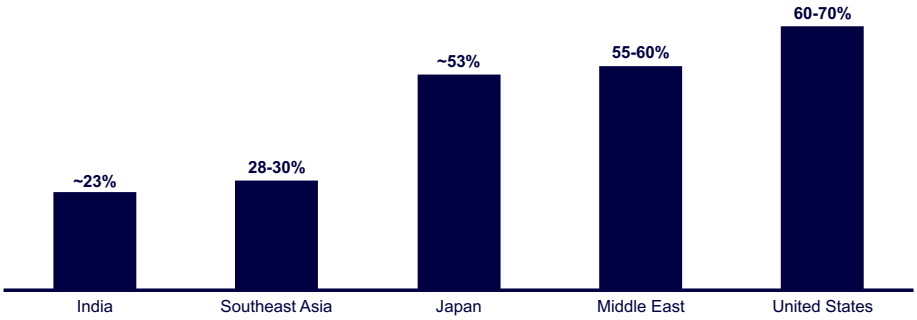
High Dependence on Unorganised Retailers Globally With Inconsistent Customer Experience

Globally, eyewear retailing is composed of several types of retailers. Smaller, unorganised retailers generally have fewer than five stores and offer fragmented, store-dependent service models. Whereas traditional organised retailers typically have more than five outlets but have limited backend integration and localised operations. Most of these traditional organised retailers have limited presence outside of large cities. Meanwhile, large organised retailers typically have a multi-regional footprint, partially or fully integrated supply chains, and deliver a standardised customer experience across thirty or more outlets. The prescription eyeglass market in emerging markets such as India and Southeast Asia has historically been dominated by unorganised retailers, with only ~23% and 28-30% of the respective markets being driven by organised players (including traditional organised and large integrated organised players) respectively, as of FY 2025. This creates multiple challenges for consumers, as access to affordable high-quality options is limited.

The in-store experience among unorganised and traditional organised eyewear retailers shows marked variation compared to large organised retailers in pricing transparency, product availability, diagnostic technology, design options, customisation capabilities, and service timelines leading to an inconsistent purchase experience, further deterring adoption. These retailers often rely on third-party suppliers, offer a constrained product assortment, and operate with less streamlined supply chain processes. Frames and lenses are typically sourced from different vendors, creating a fragmented supply chain. This fragmentation hinders communication and creates a broken feedback loop, often preventing issues like misalignment or quality concerns from being adequately addressed. Consequently, customers may encounter inconsistent quality and longer wait times. Additionally, a shortage of trained sales professionals further compounds the challenge, making it difficult for consumers to navigate the complex process of selecting frames and lenses, including decisions on frame brand, lens material, coatings, and quality, and ensuring accurate alignment and fitment.

Meanwhile, the share of organised retailers is much higher in markets such as the Middle East, Japan, and the United States, driving higher penetration of prescription eyeglasses in these markets and supporting the scale-up of online channels, aided by a higher purchasing power of consumers in these markets (driving higher average selling prices), greater consumer trust in brand-backed offerings and familiarity with consistent retail experiences.

Exhibit 12: Organised Share of Prescription Eyeglasses Retail Sales in India and Key Geographies
FY 2025, in % of total retail sales of prescription eyeglasses



Note(s): 1. India data is for FY 2025
2. Southeast Asia includes Indonesia, Malaysia, Philippines, Singapore, Thailand and Vietnam
3. The Middle East includes Saudi Arabia and the UAE
Source(s): Redseer research & analysis

Complex Category Requiring Customisation Leading to Scalability Challenges for Unorganised Retailers

The prescription eyeglasses industry requires significant customisation, starting with precise prescription measurements. Lens customisation extends beyond basic prescriptions to include specialised coatings, materials, and designs individual requirements. For single-vision lenses alone, there are millions of possible combinations when factoring in power, coating, and material choices - while progressive lenses can involve billions of permutations due to the need for precise multifocal alignment and wearer-specific fitting. Frame selection further adds to the complexity, with retailers required to manage large and diverse SKU counts across styles, sizes, and colours to cater to varied aesthetic preferences.

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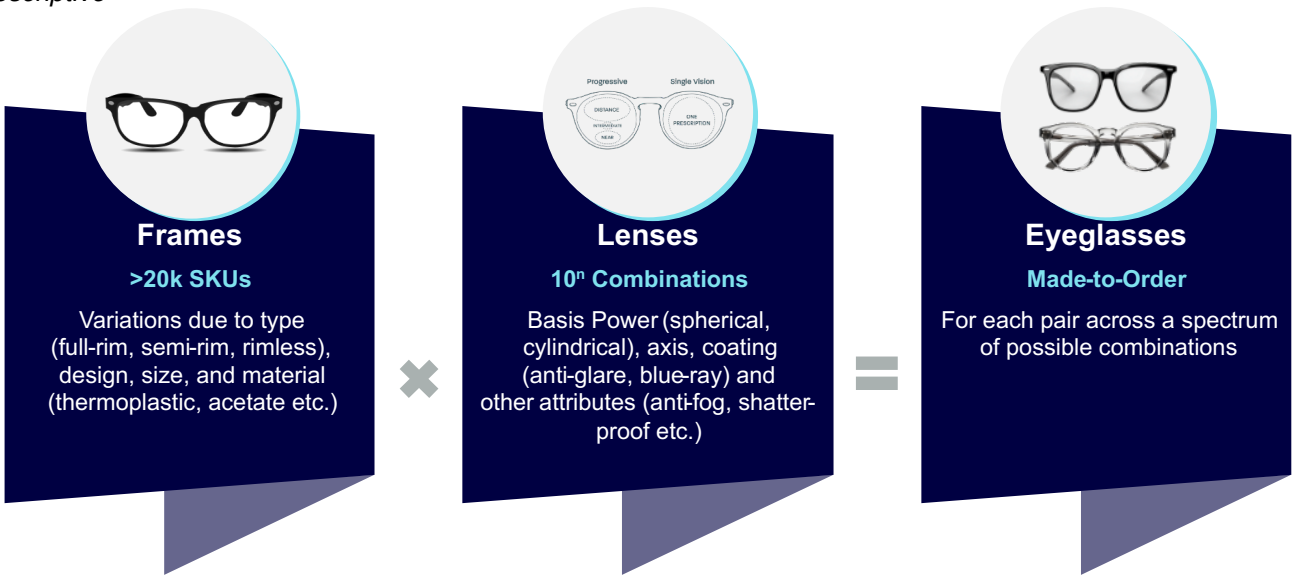
Exhibit 13: Possible Combinations of Prescription Eyeglasses
Descriptive



Source(s): Redseer research & analysis

These customisation requirements make scaling prescription eyeglasses challenging, with each unit being made-to-order. Unlike consumer categories with standardised SKUs, prescription eyeglass retailing must balance mass production efficiency with bespoke specifications for each user. Customer experience is reliant on the opticians' skills, particularly in the precise fitting of lenses into frames. This involves cutting and edging lenses to match each prescription, ensuring correct alignment based on pupillary distance, and adjusting frame fit for comfort, all of which require in-store expertise. Without these capabilities, bottlenecks in production and fulfilment arise, limiting scalability while maintaining quality and customisation.

Nascency of Online Channels with Large Share of First Time Buyers, Especially in Emerging Markets

Consumers remain hesitant to buy prescription eyeglasses online due to limited digital familiarity, lack of tactile experience, and absence of in-person adjustments, which together hinder at-scale adoption in low digital penetration markets. As a result, penetration of the organised online channel globally has been limited to less than 8% of the total sales of prescription eyeglasses as of FY 2025. In India, the share was less than 5% of total sales for prescription eyeglasses in FY 2025, which is lower than other discretionary categories (~50% in consumer electronics, ~25% in fashion, beauty & personal care, and ~6% in jewellery).

Although the online channel is in its early stages, it is increasingly influencing offline store operations and customer purchase journeys. This underscores the importance of a truly omnichannel approach, where online and offline channels are integrated to provide a consistent shopping experience. Further, the bespoke nature of prescription eyeglasses requires strong technology integration, like digital try-ons, driving disruption in traditional retail workflows.

As omnichannel, vertically integrated large organised players solve these initial challenges through quality products and investments in tech-led solutions, future growth of the online channel is projected to be driven by higher repeat purchases, improved customer experience, easier browsing journeys, and expanding SKU depth. Technology-led features such as AR-powered digital try-ons and online prescription capture are increasingly bridging the gap with offline stores, positioning online eyewear for future expansion.

Rise of Prescription Eyeglasses as a Lifestyle Category

Globally, prescription eyeglasses are evolving from a necessity to becoming a fashion-driven lifestyle accessory, straddling both essential healthcare and discretionary spending. While still in nascent stages, consumers are starting to use multiple pairs of prescription eyeglasses that elevate their style and personalisation, similar to other fashion products such as apparel, footwear, and accessories. This trend of function to fashion is fuelled by societal acceptance of corrective eyeglasses, improving affordability, the influence of digital content & social media, and frequent design refreshes by large organised retailers and brands. Technological advancements and product innovation by these large organised retailers are further enhancing customisation requirements.

Increasing Demand for Fashionable Prescription Eyeglasses

Prescription eyeglasses straddle lifestyle and essential spending - while essential from a medical use case standpoint, they are also influenced by fashion trends and gradually driving higher frequency of purchase, aligning with the broader growth trajectory of lifestyle categories.

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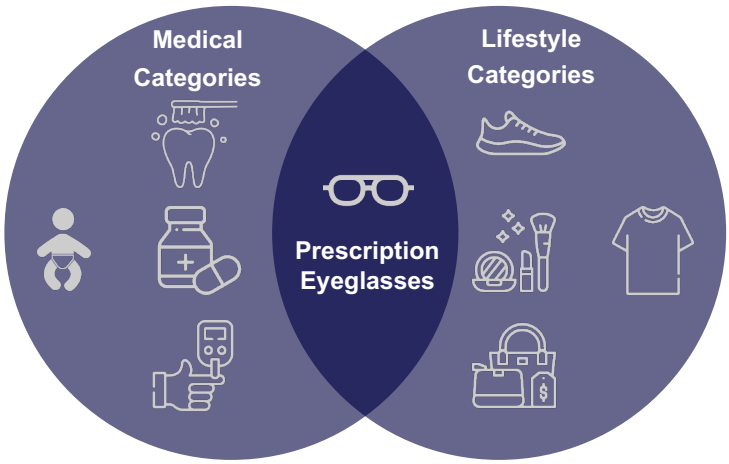
Exhibit 14: Prescription Eyeglasses as a Medical as well as Lifestyle Category
Descriptive



Source(s): Redseer research & analysis

Globally, the demand for more fashionable prescription eyeglasses has been on the rise, driven by the factors outlined below:

Growing social media prevalence and omnichannel retail experiences has influenced consumer behaviour, fuelling the perception of prescription eyeglasses as a fashion-forward accessory

Prescription eyeglasses are no longer viewed purely as a medical necessity but are becoming a fashion-forward lifestyle accessory. This shift is driven by growing social media influence, rising digital engagement, and the increasing presence of organised retailers offering seamless online-offline shopping journeys. These younger cohorts of consumers rely on influencers, brand collaborations, and user-generated content to guide their purchasing decisions, where factors such as peer recommendations and online reviews, and visibility subtly shape brand perception alongside traditional advertising.

As a result of this, the selection of frame styles, types of coating within lenses, and the overall aesthetic of prescription eyeglasses has become a thoughtful and deliberate process in the consumer's prescription eyeglass purchase journey. According to global Google search trends, between CY 2019 and CY 2024, global average monthly searches for shopping "oversized glasses", "transparent glasses", "cat-eye glasses" and "geometric glasses" increased by ~45%, ~80%, ~171%, and ~247% worldwide, respectively. Further, powered sunglasses are gaining traction as a hybrid category, bridging the need for UV protection with refractive correction, offering a stylish and practical solution for outdoor environments.

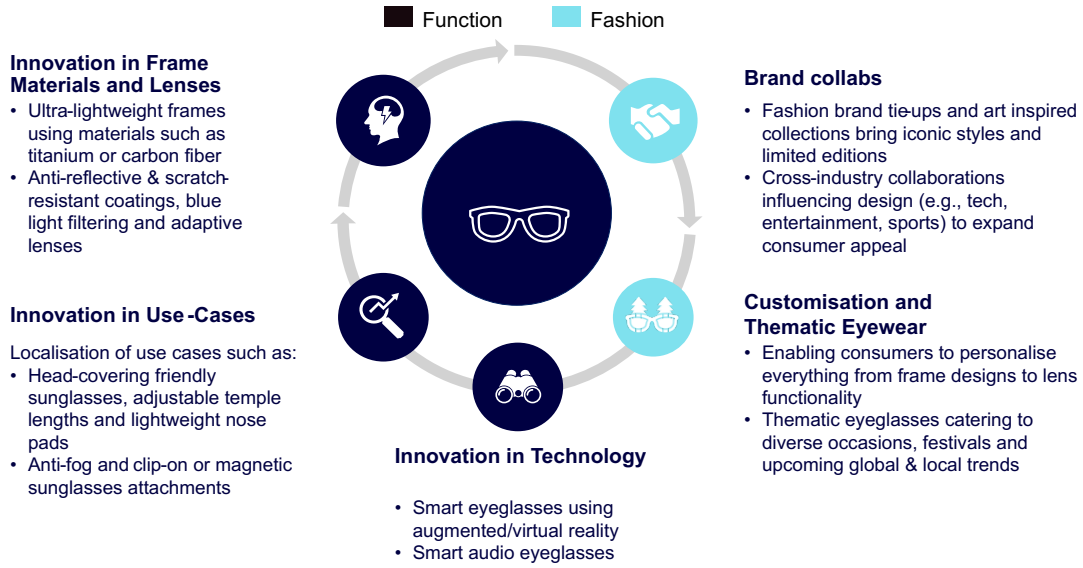
Large organised retailers and brands are experimenting with offerings such as broader frame selections online, digital try-on tools, and AI-enabled chatbots to assist customers in choosing frames and lenses, though these features are still in early stages of adoption. While these features enhance convenience, their impact is currently more visible in urban markets, with broader uptake expected as digital familiarity increases. Further, large organised retailers are also beginning to refine the in-store experience with boutique-style layouts, interactive displays, data-driven product placements, complementary on-site eye tests, and home eye-test bookings. Some stores are incorporating style-savvy consultants to guide customers on face shapes, trends, and lens needs. Complementary after-sales services, such as free adjustments and easy returns, are also emerging to complete the shopping journey for customers.

Brands are responding with more frequent collections, greater customisation, and product innovation

The rising demand for stylish, contemporary designs requires these players to refresh their collections more frequently to stay relevant. As a result, large organised retailers, globally, are increasingly forming more collaborations with fashion designers, tech companies, and even cultural figures, creating capsule-edition collections that blend style and cutting-edge technology. This is reflected in the wide assortment offered by these retailers. Typically, large organised retailers have over 20,000 SKUs (stock keeping units) of frames, depending on the level of vertical integration, whereas traditional organised players have less than 10,000 SKUs, and unorganised retailers have less than 1,500 SKUs. Large organised retailers are also investing in personalisation through varied frame shapes, colours, and sizes, creating a more tailored shopping experience.

Recent global product innovations in prescription eyeglasses have focused on enhancing comfort, functionality, and design, with brands and large organised retailers such as direct-to-consumer (D2C), vertically integrated and digital-first retailers developing tailored products to address specific consumer needs. In India, while functional enhancements such as blue-light filtering and lightweight materials are gaining traction, transition of prescription eyeglasses into a lifestyle category is still at a relatively early stage. Introduction of a variety of fashionable designs and thematic collections are gradually driving personalisation, but affordability remains a key consideration. The market is evolving to offer eyewear that blends style, functionality, and lasting comfort, catering to both fashion-conscious and practical consumers. Innovation is also expanding into technology-enabled formats, with smart glasses beginning to scale, as improvements in hardware and user experience make them more viable for everyday use.

Exhibit 15: Product Innovation in Prescription Eyeglasses Led by Large Organised Retailers Globally
Descriptive



Source(s): Redseer research & analysis

This has led to more frequent prescription eyeglasses purchases, mirroring trends witnessed across other discretionary lifestyle retail categories such as 'Fashion'

Eyewear has traditionally been a low-frequency purchase category compared to other discretionary lifestyle categories such as footwear, apparel, and fashion accessories. However, as eyewear becomes a form of self-expression, consumers are purchasing multiple pairs of prescription eyeglasses to suit different styles, occasions, and use cases, there has been increase in the frequency of purchases. This trend is particularly more evident in emerging markets such as India, where consumers on average purchase ~1.8 pairs of eyewear every 2 years, as of FY 2025, witnessing growth over the past two decades.

Exhibit 16a: Average Units of Prescription Eyeglasses Purchased in 2 years among Users - India
FY 2010-25, in units

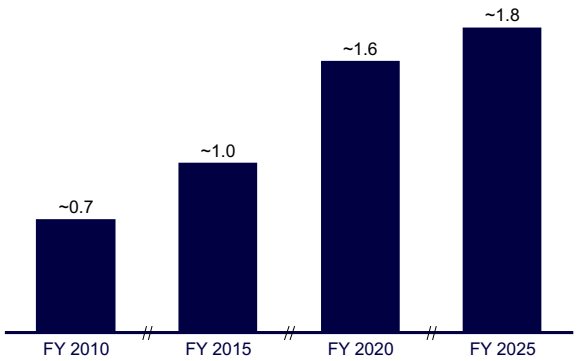
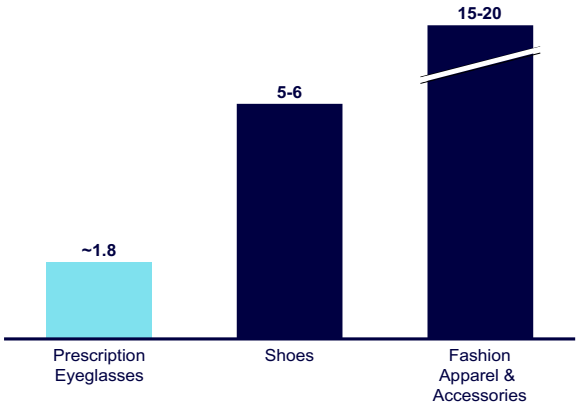


Exhibit 16b: Average Consumer Purchases across Categories in 2 years - India
FY 2025, in units



Source(s): Redseer research & analysis

These higher frequency purchase patterns mirror those seen in discretionary lifestyle categories. However, this is still quite lower than the average units of footwear, fashion apparel, and accessories bought in the same duration, indicating headroom for eyewear growth, especially in markets such as India, driven particularly by the rising demand from fashion-forward younger cohorts of consumers.

Eyewear Opportunity Overview

The global eyewear market, valued at ~₹ 15,207 billion (~US$ 177 billion) in FY 2025, is projected to reach ~₹ 18,657 billion (~US$ 217 billion) by FY 2030P. Prescription eyeglasses have the highest contribution with ~70% of total market by value, followed by contact lenses and sunglasses. Asia contributes 29-37% of the global eyewear market as of FY 2025, and emerging markets such as India and Southeast Asia are projected to be the fastest growing markets, with their organised eyewear markets projected to grow at ~19% and 10-14% respectively between FY 2025-30P. Their growth is driven by increasing awareness on prevalence of refractive errors, improving affordability of prescription eyeglasses, and the expanding presence of organised players. Japan's stable market is consolidating around value-focused organised chains, due to the rising share of direct-to-consumer brands and private labels, while the organised eyewear market growth of ~10% in the Middle East is attributed to higher purchase frequency and omnichannel retail adoption driven by direct-to-consumer

(D2C) brands. Further, the category's dual relevance across healthcare and lifestyle is driving growth across developed and emerging markets alike.

Global Eyewear Opportunity Overview

The global eyewear market is large and steadily growing, driven by the increasing incidence of refractive errors, increasing awareness and access driving penetration of prescription eyeglasses with rising disposable incomes, and evolving consumer preferences. This growth has been complemented by a rapid shift from unorganised to organised retailers in the eyewear market across geographies. As of FY 2025, the global eyewear market is estimated at ~₹ 15,207 billion (~US$ 177 billion) and is projected to grow at a CAGR of ~4% to reach ~₹ 18,657 billion (~US$ 217 billion) by FY 2030P. The eyewear market opportunity in Asia alone is sized at ₹ 4,700-5,600 billion (US$ 55-65 billion) as of FY 2025 and is projected to increase to ₹ 6,000-7,800 billion (US$ 70-90 billion) by FY 2030P, growing at a CAGR of 6-8%. Prescription eyeglasses account for ~70% of the global eyewear market as of FY 2025, driven by their dual relevance across healthcare and lifestyle and rising penetration. Sunglasses and contact lenses, while smaller in share, represent important lifestyle and functional divisions. Consumer behaviour across these categories varies widely by use-case and price-sensitivity. While price-sensitive consumers continue to patronise neighbourhood opticians, fashion-forward consumers increasingly experiment with international labels.

Exhibit 17a: Global Eyewear Market Value
Value in ₹ billion (US$ billion) for FY 2020, 2025, 2030P

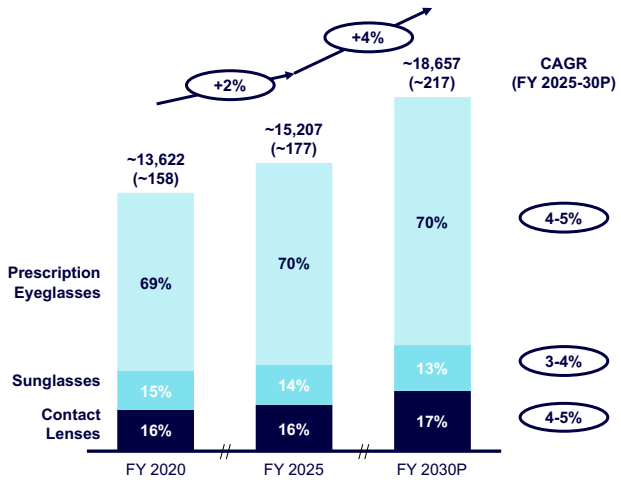
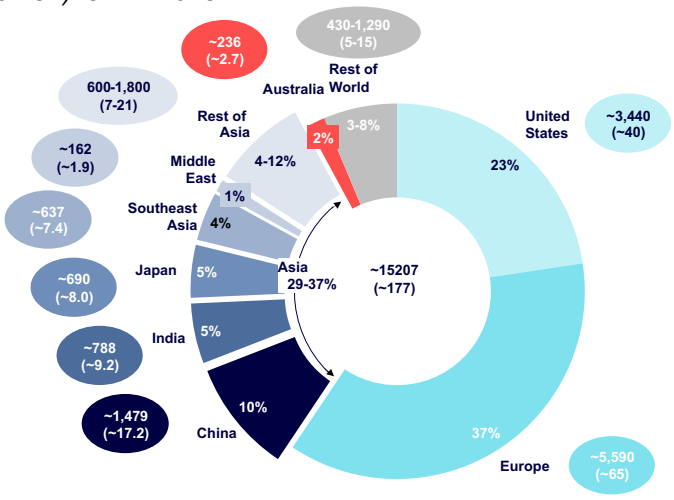


Exhibit 17b: Global Eyewear Market Value - Split by Major Countries & Regions
In % of total eyewear market size, Value in ₹ billion (US$ billion) for FY 2025



Note(s): 1. Considering exchange rate of US$ 1 = ₹ 86
2. Middle East comprises of Saudi Arabia and the UAE
3. Southeast Asia comprises of Indonesia, Malaysia, Philippines, Singapore, Thailand and Vietnam
4. The eyewear market in Taiwan is valued at valued at ~₹ 112 billion (~US$ 1.3 billion) in FY 2025 and is projected to grow to ~₹ 147 billion (US$ 1.7 billion) by FY 2030P, with prescription eyeglasses contributing to 40-50% of the eyewear market
5. The eyewear market in Hong Kong is valued at valued at ~₹ 39 billion (~US$ 0.5 billion) in FY 2025 and is projected to grow to ~₹ 47 billion (US$ 0.6 billion) by FY 2030P
6. Rest of the world refers to eyewear market in geographies excluding Asia, the United States, Europe, and Australia
Source(s): Redseer research & analysis

Growth dynamics in the global eyewear market vary considerably between developed and emerging markets. Emerging markets, such as India and parts of Southeast Asia, are projected to see the fastest growth, driven by the rising need for prescription eyeglasses due to the increasing incidence of refractive errors, growing penetration, and a shift toward organised retailers boosting adoption. This growth is further supported by premiumisation trends, driven by macroeconomic tailwinds such as rising disposable incomes and demographic shifts and fashion-oriented demand for prescription eyeglasses.

Meanwhile, developed markets such as Europe, Japan, Singapore, and the United States are projected to experience steady growth, driven by premiumisation and lifestyle spending that boosts demand for both prescription eyeglasses and other eyewear products such as sunglasses and contact lenses. These developed markets also benefit from a higher share of organised retail, with established brands and chains dominating distribution, unlike the more fragmented market structures typical of emerging markets.

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Exhibit 18a: Prescription Eyeglasses Market Size and Growth across India and Key Geographies
Market Size for FY 2025 in ₹ billion (US$ billion), Market Growth CAGR from FY 2025-30P in %, Volume as Bubble Size

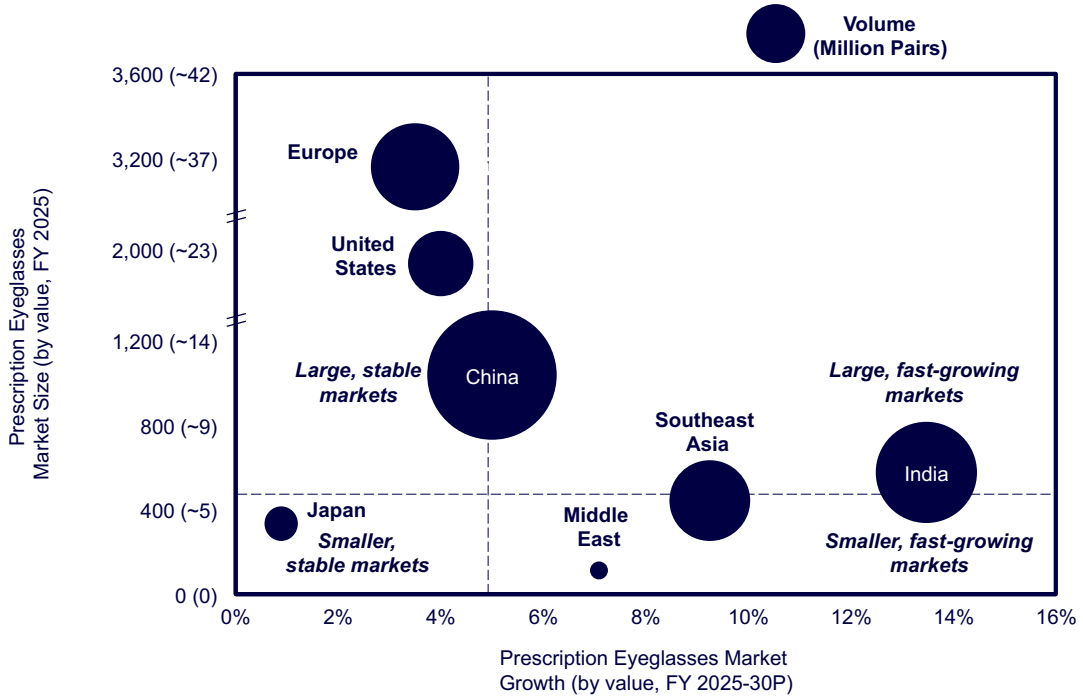


Exhibit 18b: Summary of Eyewear Market in India and Key Geographies
Quantitative

Parameters	Unit	Time Period	India	Southeast Asia	Japan	Middle East
Population (A)	Millions	FY 2025	~1,454	~614	~124	~45
Prevalence of Refractive Errors (B)	%	FY 2025	~53%	~65%	~68%	~40%
		FY 2030P	~62%	~70%	~71%	~42%
Population with Refractive Errors (C=A*B)	Millions	FY 2025	~777	~401	~84	~18
		FY 2030P	~943	~446	~86	~21
Prescription Eyeglasses Market						
Penetration of Prescription Eyeglasses (D)	%	FY 2025	~35%	~40%	~69%	~60%
		FY 2030P	~41%	~44%	~64%	~64%
Population with Prescription Eyeglasses (E=C*D)	Millions	FY 2025	~274	~161	~58	~11
		FY 2030P	~385	~197	~55	~13
Annual Spend per user on Prescription Eyeglasses (F)	₹ (US$)	FY 2025	~2,089 (~24)	~2,729 (~32)	~5,768 (~67)	~10,309 (~120)
Prescription Eyeglasses Market Size (G=E*F)	₹ Billions (US$ Billions)	FY 2025	~573 (~6.7)	~440 (~5.1)	~332 (~3.9)	~113 (~1.3)
Organised Share of Prescription Eyeglasses	% of Eyewear Market by value	FY 2025	~23%	28-30%	~53%	55-60%
		FY 2030P	~30%	35-40%	~59%	67-72%
Prescription Eyeglasses Organised Market Growth Rate	%	FY 2025-30P	~20%	14-17%	~3%	~11%
Share of Prescription Eyeglasses	% of Eyewear Market by value	FY 2025	~73%	~69%	~48%	~69%
Other Categories and Overall Eyewear Market						
Contact Lenses Market Size (H)	₹ Billions (US$ Billions)	FY 2025	~41 (~0.5)	~49 (~0.6)	~290 (~3.4)	~22 (~0.3)
Sunglasses Market Size (I)	₹ Billions (US$ Billions)	FY 2025	~174 (~2.0)	~149 (~1.7)	~68 (~0.8)	~28 (~0.3)
Total Eyewear Market Size (J = G)	₹ Billions (US$ Billions)	FY 2025	~788 (~9.2)	~637 (~7.4)	~690 (~8.0)	~162 (~1.9)
Eyewear Market Growth Rate	%	FY 2025-30P	~13%	~7%	~3%	~7%

Note(s): 1. Considering exchange rate of US$ 1 = ₹ 86
2. Southeast Asia comprises of Indonesia, Malaysia, Philippines, Singapore, Thailand and Vietnam

3. Middle East comprising of Saudi Arabia and the UAE
4. Total Eyewear Market Size = Prescription Eyeglasses Market Size (G) + Contact Lenses Market Size (H) + Sunglasses Market Size (I), where:
*Prescription Eyeglasses Market Size (G) = Population with Prescription Eyeglasses (E) * Annual Spend per User (F), where*
*Population with Prescription Eyeglasses (E) = Population with Refractive Errors (C) * Penetration of Prescription Eyeglasses (D), where*
*Population with Refractive Errors (C) = Population (A) * Prevalence of Refractive Errors (B)*
Source(s): Redseer research & analysis

Geography-Wise Opportunity Deep Dives

India is One of the Fastest Growing Eyewear Markets Globally

With a CAGR of ~13% between FY 2025 and FY 2030P, the eyewear market in India is projected to expand at ~1.5x the rate of the overall retail market in India and 3x faster than global eyewear market during the same period and projected to reach ~₹ 1,483 billion (~US$ 17.2 billion) by FY 2030P, from ~₹ 788 billion (~US$ 9.2 billion) in FY 2025. Prescription eyeglasses constitute the largest category at ~73% of this market in value terms, followed by sunglasses and contact lenses.

Exhibit 19a: India Eyewear - Market Value
Value in ₹ billion (US$ billion) for FY 2020, 2025, 2030P

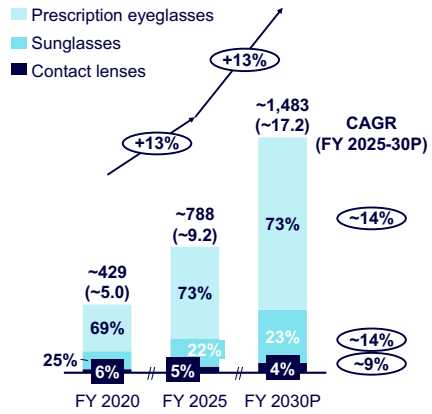


Exhibit 19b: India Eyewear - Market Volume
Volume in million units for FY 2020, 2025, 2030P

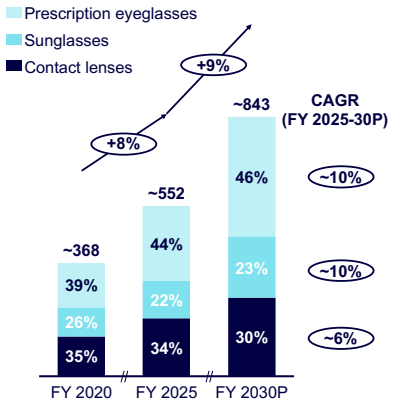
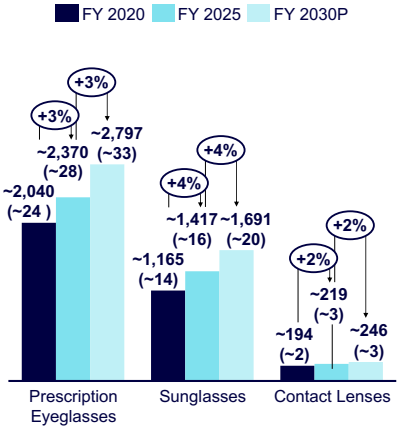


Exhibit 19c: India Eyewear - Average Selling Price (ASP)
Price in ₹ (US$) for FY 2020, 2025, 2030P



Note(s): 1. Considering exchange rate of US$ 1 = ₹ 86
Source(s): Redseer research & analysis

There are multiple factors driving the Indian eyewear market, as detailed below:

Rising refractive errors among teenagers and young children

Increasing prevalence of refractive errors, especially myopia, among teenagers and children is being driven by a combination of behavioural and lifestyle factors. Contributors include excessive screen time, particularly late-night smartphone use, prolonged near-work activities like reading and studying, limited exposure to natural light due to reduced outdoor play, and poor visual habits such as incorrect posture and inadequate lighting. Academic pressure and irregular sleep patterns also play a role in straining eye health. While the overall prevalence of refractive error grew from ~43% of the population in FY 2020 to ~53% of the population in FY 2025, it grew much faster among children from ~21% of the population in FY 2020 to ~39% of the population in FY 2025 and is projected to reach ~54% of the population by FY 2030P - more than doubling over the current decade.

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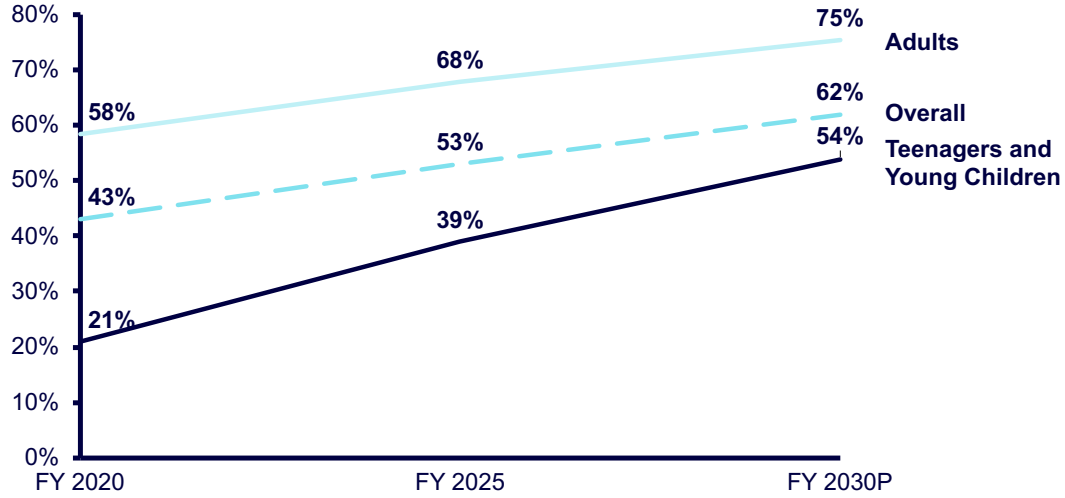
Exhibit 20: Prevalence of Refractive Errors in India by Age Group
% of population for FY 2020, 2025, 2030P



Note(s): Teenagers and young children refer to people within the age group 10-19 years, while adults refer to those 20 and above
Source(s): Redseer research & analysis

Lifestyle factors and increasing awareness of refractive errors are driving growth across city tiers

Prevalence of refractive errors is highest in India's Metro[11] cities, largely driven by modern lifestyles, followed by Tier 1[11] cities and lowest in Tier 2+[11] cities/regions. Prescription eyeglasses penetration also follows a similar pattern, reflecting varying degrees of consumer awareness, affordability, and retail access across cities/regions. In Tier 2+ cities/regions, limited early eye screenings leave many people unaware of their vision issues, and relatively high eyeglass costs further restrict prescription eyeglasses penetration. Growth in prescription eyeglasses in Tier 1 and Tier 2+ cities/regions is largely refractive error correction-driven and catalysed by increasing access to affordable eyeglasses, especially amongst first-time users. While these markets continue to expand driven by essential healthcare needs, lifestyle-led consumption is also gaining ground. At the same time, Metros are witnessing a more pronounced shift toward lifestyle-led consumption and premiumisation, driven by higher fashion consciousness and a stronger presence of organised players. Additionally, the gradual rise of vision-related insurance coverage - particularly through employer health plans - is expected to support penetration.

Exhibit 21: India - Prescription Eyeglasses Funnel by City Tier
FY 2025

Source(s): Redseer research & analysis

Growth in the organised channels is influencing India's eyewear market by solving for better access, affordability, and improved customer experience

The Indian eyewear market is highly fragmented with ~24% of the market driven by organised channels as of FY 2025. The growth of organised channels has historically been constrained by limited infrastructure and accessibility, driven by the inefficiencies in the traditional supply chain and the presence of multiple intermediaries, coupled with the operational intensity of the category which requires the presence of skilled professionals, such as optometrists for eye testing and opticians for frame and lens dispensing, adjustments, and customer assistance, at each store location. However, large integrated organised retailers

[11] Refer to glossary for definition of Metro, Tier 1, and Tier 2+ cities/region

are driving growth in the organised channel through efficient supply chains, better value-for-money offerings, and in-store trained optometrists and opticians. This leads to a consistent product quality across price-points, wider assortments, and a customer experience enhanced by the blend of digital and physical retail touchpoints. As a result, the organised channel is projected to grow ~1.6x times faster than the unorganised channel, accounting for ~31% of the overall market by FY 2030P.

Exhibit 22a: India Eyewear Split by Channel

Market size in ₹ billion (US$ billion) for FY 2020, 2025, 2030P

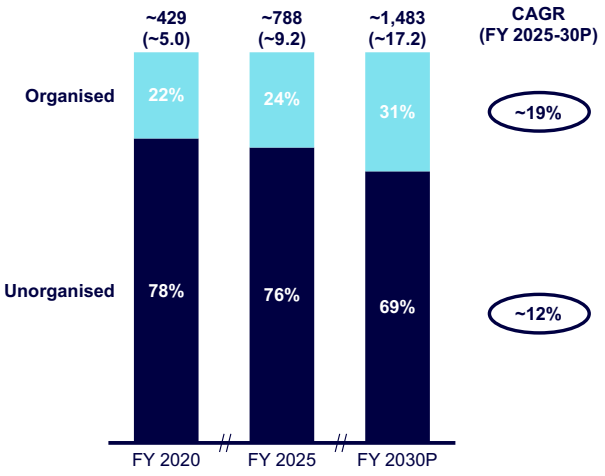
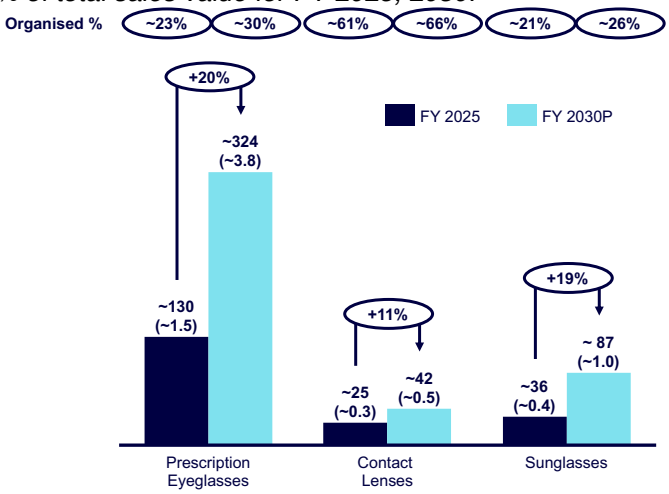


Exhibit 22b: India Organised Eyewear Split by Category

Market size in ₹ billion (US$ billion), Organised share in % of total sales value for FY 2025, 2030P

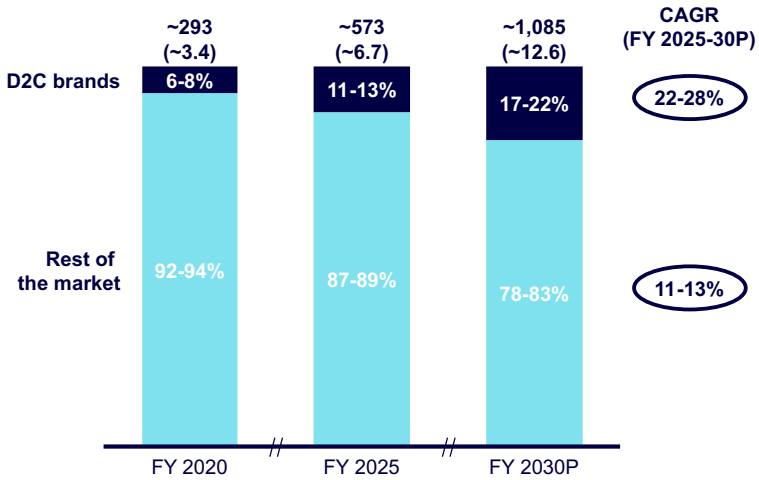


Note(s): Considering exchange rate of US$ 1 = ₹ 86
Source(s): Redseer research & analysis

Historically, the prescription eyeglasses market in India has exhibited a wide range of price points, with organised incumbents commanding a premium over unorganised alternatives and providing consistent quality, wider assortments, and enhanced service. While the unorganised channel remains relatively inexpensive, it often leads to lower customer satisfaction owing to instances of inconsistent quality due to lack of durability, long delivery timelines due to fragmented supply chain, narrow product assortment, lack of trained optometrists, limited use of technology and the absence of after-sales service. This has created a whitespace for value-focused offerings by direct-to-consumer players to capture, as consumers increasingly demand reliability, affordability, and a more seamless shopping experience. As a result, these players are investing in improved product design, wider and trendier assortment, after-sales support, and omnichannel models, making organised retail increasingly attractive across consumer groups. Direct-to-consumer (D2C) brands' share of prescription eyeglasses market (in value terms) has grown from 6-8% of the prescription eyeglasses market in FY 2020 to 11-13% in FY 2025, growing at a CAGR of 25-30%. This is further projected to grow at a CAGR of 22-28% to reach 17-22% of the market by FY 2030P.

Exhibit 23: India Prescription Eyeglasses Market - Split by D2C Brands and Others

Market size in ₹ billion (US$ billion) for FY 2020, 2025, 2030P



Note(s): 1. Considering exchange rate of US$ 1 = ₹ 86
2. Rest of the market consists of brands sold through traditional intermediaries such as wholesalers and third-party retailers
Source(s): Redseer research & analysis

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Growth in sunglasses, contact lenses and accessories

The sunglasses market in India is valued at ~₹ 174 billion (~US$ 2.0 billion) in FY 2025 and is projected to grow at a CAGR of ~14%, reaching ~₹ 335 billion (~US$ 3.9 billion) by FY 2030P. This growth is fuelled by shifting consumer perceptions of sunglasses as both a functional necessity and a lifestyle accessory, alongside rising disposable incomes and a growing affinity for premium and branded offerings. Additionally, increasing UV protection awareness, expansion of omnichannel retail models, and the proliferation of fashion-driven trends are accelerating demand. Organised players are particularly well-positioned to capture this growth, offering a wider assortment of stylish, high-quality sunglasses and advanced contact lens solutions with value-added services such as customised fittings, specialist consultations, and digital-to-store experiences. Powered sunglasses are an emerging subcategory, catering to consumers seeking vision correction along with UV protection. As awareness and outdoor lifestyle needs grow, this sub-category is gaining traction for its functional utility and style appeal.

The contact lenses category is also poised for sustained growth, driven by evolving consumer preferences. The market for contact lenses in India is sized at ~₹ 41,164 million (~US$ 480 million) in FY 2025 and is projected to grow at a CAGR of ~9%, reaching ~₹ 62,966 million (~US$ 730 million) by FY 2030P. The category is benefiting from rising consumer awareness, greater access to advanced lens technologies, and evolving lifestyle preferences.

The eyewear industry is seeing early signs of growth in accessories, with clip-ons, interchangeable fittings, and premium lens-care kits gaining interest among consumers seeking customisation. While still a nascent trend, few large organised retailers are experimenting with bundled deals and premium add-ons to enhance engagement and increase transaction values. As multi-use eyewear solutions attract more attention, accessories could become a small but valuable avenue for differentiation and incremental revenue.

Japan is a Stable Market Undergoing Organisation Led by Value-Focused Players

The Japanese eyewear market is large and stable, valued at ~₹ 690 billion (~US$ 8.0 billion) in FY 2025 and is projected to grow at a CAGR of ~3%, reaching ~₹ 787 billion (~US$ 9.2 billion) by FY 2030P.

Increasing prevalence of refractive errors driven by an ageing population

With ~68% of the population affected by refractive errors in FY 2025, prescription eyeglasses remain the largest category with stable growth supported by an ageing population, driving an increasing incidence of presbyopia and sustained demand for refractive error correction solutions. Prevalence of refractive errors is further projected to increase to ~71% of the population in FY 2030P.

Exhibit 24a: Japan Eyewear - Market Value
FY 2020, 2025, 2030P, in ₹ billion (US$ billion)

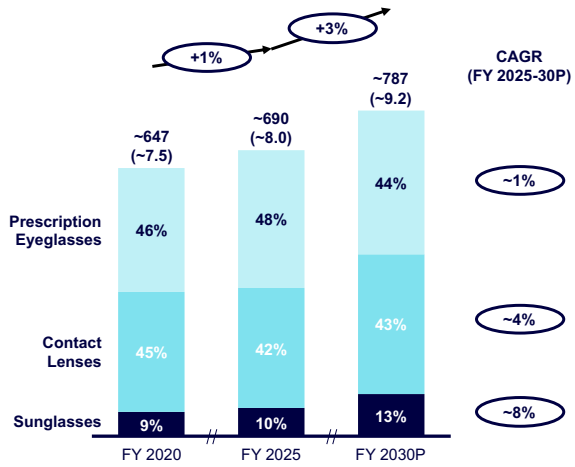
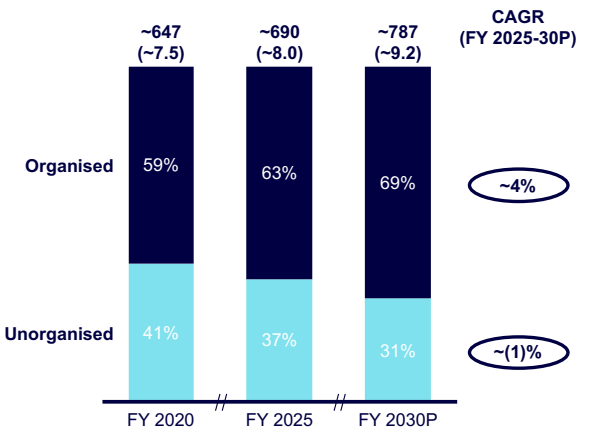


Exhibit 24b: Japan Eyewear Split by Channel
Market size in ₹ billion (US$ billion) for FY 2020, 2025, 2030P



Note(s): Considering exchange rate of US$ 1 = ₹ 86
Source(s): Redseer research & analysis

Value-focused large organised retailers dominate the prescription eyeglass market in Japan, driven by their private labels and direct-to-consumer approach

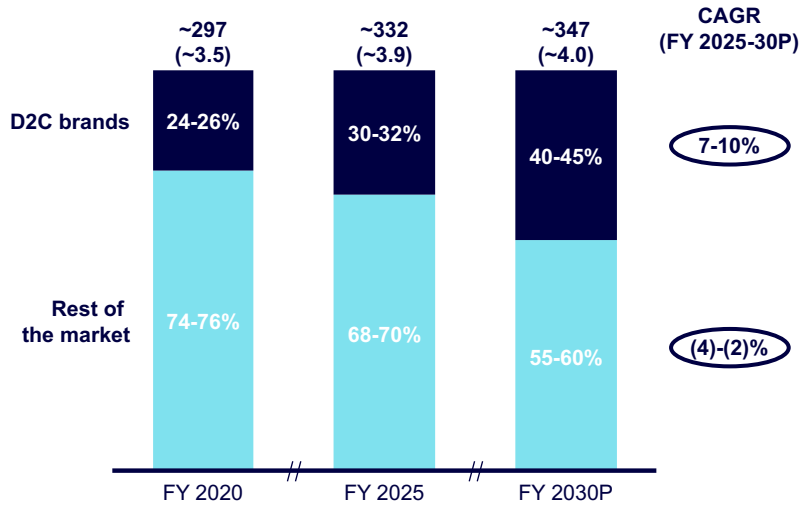
While the market for prescription eyeglasses has been stable, in value terms, organised retailers have witnessed slightly higher CAGR of 4-5% from FY 2020-25, compared to a CAGR of 2-3% for overall prescription eyeglasses market during the same period. Growth of organised retailers was primarily driven by value-focused direct-to-consumer (D2C) brands, who outperformed traditional optical chains, department stores, and unorganised retailers. These players gained traction by offering functional, fashionable, and quick-service eyewear through fixed-price, all-inclusive packages that disrupted the traditional model of charging separately for frames, lenses, and additional coatings.

This shift in the prescription eyeglasses market has led to:

- *Long term reduction in average selling prices historically:* Over the past two decades, these value-focused large organised retailers have disrupted the market by introducing low-cost, standardised pricing models, making prescription eyeglasses more accessible. The average selling price (ASP)[12] of prescription eyeglasses has declined from ~₹ 17,200 (~US$ 200) in FY 2001 to ~₹ 12,315 (~US$ 143) in FY 2025. This decline has been driven by a shift in the market structure towards value-focused models, alongside a long-term supply-side shift in manufacturing from Japan to lower-cost hubs such as China. Though prices reduction has stabilised in recent years, rising input costs have led to 1-2% CAGR in ASP between FY 2020-2025, and are projected to witness a moderate upward movement in the coming years.
- *Higher frequency of purchases by younger consumers:* This has encouraged higher purchase frequency among young customers, with consumers aged under 50 years now having purchase frequency over 3 times of those aged over 50 years, as these consumers are increasingly purchasing multiple pairs for different occasions and styles.

Despite lower ASPs, value-focused direct-to-consumer large organised retailers are able to protect their margins by offering differentiated, value-added products such as lightweight, durable frames, and advanced lenses with anti-fatigue and blue-light filtering features. Their growth is supported by private label offerings and greater control through vertically integrated supply chains. As a result, the market share of direct-to-consumer (D2C) brands rose from 24-26% in FY 2020 to 30-32% in FY 2025, growing at a CAGR of 6-8%. This is further projected to rise to 40-45% by FY 2030P, growing at 7-10% CAGR, outpacing overall and organised market growth. This momentum is also expected to increase the organised retail share of the overall eyewear market from ~63% in FY 2025 to ~69% by FY 2030P, as these players continue to gain ground over unorganised retailers and traditional multi-brand optical chains.

Exhibit 25: Japan Prescription Eyeglasses Market - Split by D2C Brands and Others
Market size in ₹ billion (US$ billion) for FY 2020, 2025, 2030P



Note(s): 1. Considering exchange rate of US$ 1 = ₹ 86
2. Rest of the market consists of brands sold through traditional intermediaries such as wholesalers and third-party retailers
Source(s): Redseer research & analysis

Sunglasses and contact lenses markets are witnessing adoption-led growth

The Japanese sunglasses market is a large and fast-growing market, valued at ~₹ 68 billion (~US$ 0.8 billion) in FY 2025 with ~34% of the population using sunglasses, and is projected to grow at a CAGR of ~8%, reaching ~₹ 101 billion (~US$ 1.2 billion) by FY 2030P. Previously viewed unfavourably due to the anti-social stigma associated with them, sunglasses are now seen as both a functional necessity (offering benefits such as UV protection) and a style accessory accelerating mainstream adoption. Japanese consumers continue to prioritise precision, durability, and functionality, which led to steady revenue growth for organised players in the region.

The market is also witnessing a rise in contact lenses, fuelled by improved safety perceptions and the availability of disposable lenses, catering to younger users who prefer eyeglass-free refractive error correction. Japan has one of the highest adoption rates of contact lens globally, driven by strong consumer preference for aesthetics, convenience, and an active lifestyle. Further, growth is also driven by consumers who are switching from prescription eyeglasses to contact lenses. This is driven by higher awareness of eye health, increasing availability of daily disposables, and preference for neat, professional appearances have further cemented contact lenses as a mainstream choice.

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[12] Constant exchange rate at current prices

Southeast Asia's Eyewear Market is Growing Rapidly Driven by Increasing Eyewear Adoption

The Southeast Asia market[13] includes Indonesia, Malaysia, Philippines, Singapore, Thailand and Vietnam. The Southeast Asia eyewear market is witnessing penetration-led growth in emerging markets such as Indonesia, Vietnam, Malaysia, Philippines, and Thailand, and rising share of organised retail in more developed markets such as Singapore. As a result, the market in these countries is projected to grow from ~₹ 637 billion (~US$ 7.4 billion) in FY 2025 to ~₹ 912 billion (~US$ 10.6 billion) by FY 2030, at a CAGR of ~7%.

As of FY 2025, prescription eyeglasses dominated the eyewear market in Southeast Asia with a contribution of ~69% of the total market by value, followed by sunglasses at ~23%, and contact lenses at ~8%. Prescription eyeglasses are projected to drive the eyewear market in Southeast Asia, with a CAGR of 9-10% over FY 2025-2030P. This growth is largely fuelled by the rising prevalence of refractive errors, which affect 60-70% of the population, with myopia being the most common. Rising adoption and increased usage frequency are driving steady volume growth in sunglasses and contact lenses.

With penetration rate at ~40% of refractive error incidences, prescription eyeglasses in Southeast Asia show variation by country, indicating headroom for further adoption. While Singapore in particular, resembles markets such as the United States and Europe, having one of the highest refractive error rates globally (~75% of the population) and prescription eyeglasses penetration of ~80% of the refractive error incidences, penetration in other markets such as Indonesia, Vietnam, Malaysia, and Philippines, remains much lower. The average selling prices for prescription eyeglasses also vary widely, from ₹ 2,150-2,580 (US$ 25-30) in Indonesia and the Philippines to ~₹ 8,250 (~US$ 96) in Singapore, due to variation in purchasing power across the region and varying supply-side dynamics. Organised retail is increasingly gaining a foothold in the Southeast Asia eyewear market, with the share of the organised market projected to grow from 33-35% in FY 2025 to 40-45% by FY 2030P, growing 2.3-3x times faster than the unorganised market in the same period.

Exhibit 26a: Southeast Asia Eyewear - Market Value

In ₹ billion (US$ billion) for FY 2020, 2025, 2030P

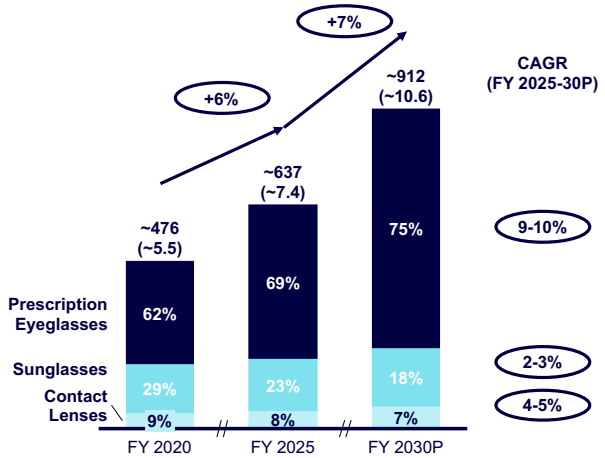
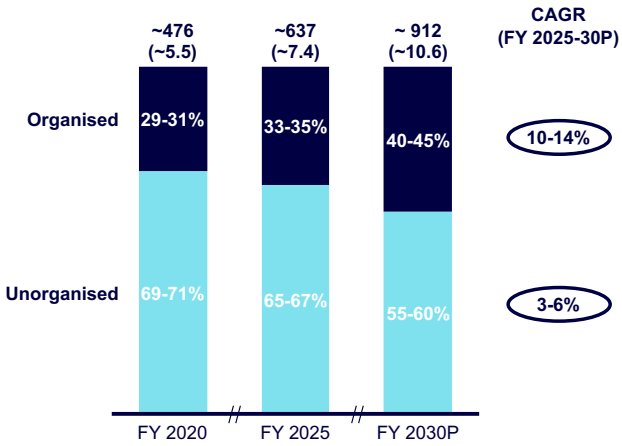


Exhibit 26b: Southeast Asia Eyewear Split by Channel

Market size in ₹ billion (US$ billion) for FY 2020, 2025, 2030P



Note(s): 1. Considering exchange rate of US$ 1 = ₹ 86
2. Southeast Asia includes Indonesia, Malaysia, Philippines, Singapore, Thailand, and Vietnam
Source(s): Redseer research & analysis

Growth in the Middle East is Driven by Higher Frequency of Purchases, the Rising Share of Direct-to-Consumer Brands, and Increasing Omnichannel Retail Adoption

The Middle East market includes[14] Saudi Arabia and the United Arab Emirates (UAE). The eyewear market in these countries in the Middle East is projected to expand at a CAGR of ~7% from ~₹ 162 billion (~US$ 1.9 billion) in FY 2025 to ~₹ 225 billion (~US$ 2.6 billion) by FY 2030P. This growth is driven by increasing disposable incomes, expanding retail infrastructure, a growing preference for premium eyewear, and the increasing presence of international brands. The share of prescription eyeglasses continues to expand as younger consumers increasingly seek eyewear as a fashion-driven lifestyle accessory, and the expansion is further bolstered by government insurance coverage for prescription eyeglasses. Sunglasses also drive category growth, with adoption shaped by both fashion aspirations and the region's climate - particularly among the large expat population living in high-sun conditions.

[13] Southeast Asia is defined report as emerging markets of Indonesia, Malaysia, Philippines, Thailand and Vietnam and developed market Singapore

[14] The Middle East has been defined in this report as Saudi Arabia and United Arab Emirates (UAE)

Exhibit 27a: Middle East Eyewear - Market Value
In ₹ billion (US$ billion) for FY 2020, 2025, 2030P

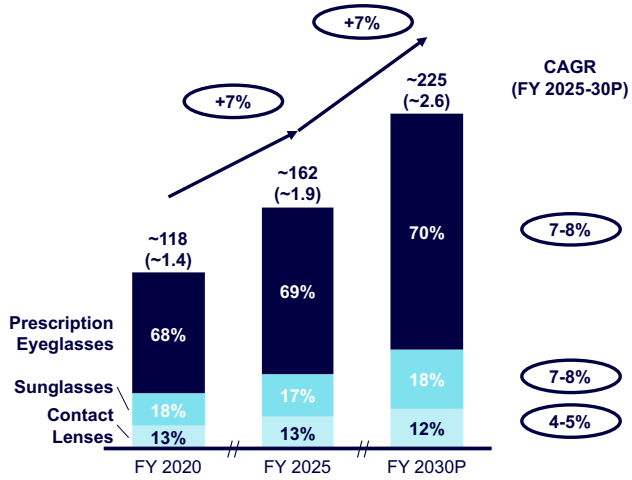
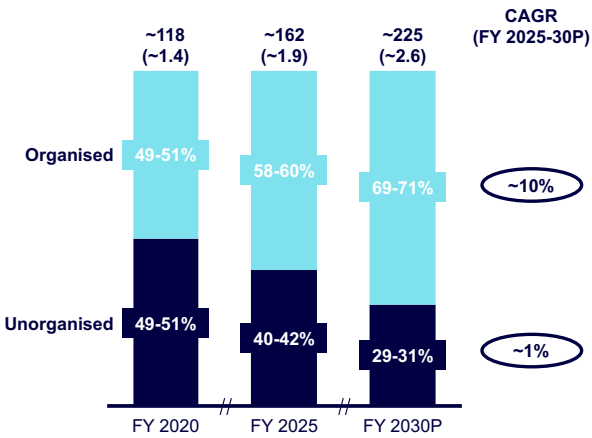


Exhibit 27b: Middle East Eyewear Split by Channel
Market size in ₹ billion (US$ billion) for FY 2020, 2025, 2030P

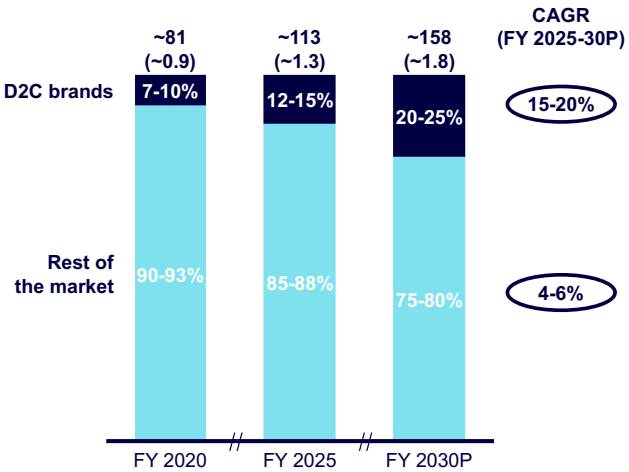


Note(s): 1. Considering exchange rate of US$ 1 = ₹ 86
2. Middle East includes Saudi Arabia and the UAE
Source(s): Redseer research & analysis

The Middle East eyewear market is also evolving with strong omnichannel retail adoption, as well as an increasing focus on localised eyewear designs suited to the region's climate and consumer preferences, though it continues to be dominated by international eyewear manufacturers. Examples of localised designs for the Middle East include sunglasses with enhanced UV and dust protection for desert climates, lightweight frames made to withstand high temperatures, and styles that incorporate traditional Middle Eastern aesthetics such as intricate geometric patterns or luxury embellishments. As in other global markets, digital retail and e-commerce are playing an increasing role in eyewear sales in the Middle East, helping brands tap into a younger, tech-savvy consumer base. Organised retailers dominate the Middle East eyewear market, and their share is projected to grow further, increasing from 58-60% in FY 2025 to 69-71% by FY 2030P, growing over ~10x faster than the unorganised market in the same period.

The Middle East prescription eyeglasses market is evolving similarly to Europe and the United States in the premium bracket although it remains at least a decade behind in overall development. Optical store density is lower than that of mature markets such as the United States and France, indicating significant growth potential. ASP stands at ~₹ 14,677 (~US$ 171) with few organised players commanding premium ASPs as high as ~₹ 34,400 (~US$ 400), while unorganised players range between ₹ 12,900-17,200 (US$ 150-200). 58-60% of the eyewear market in the Middle East (by value) is accounted for by organised retailers, as of FY 2025. However, outside the luxury bracket, consumer behaviour at the lower and mid-price points aligns more closely with emerging markets such as India. The market exhibits a high share of value-conscious consumers with demand for affordable yet stylish eyewear, and considerable presence of unorganised retail. Direct-to-consumer (D2C) brands' share of prescription eyeglasses market has grown from 7-10% of the prescription eyeglasses market in FY 2020 to 12-15% in FY 2025, growing at a CAGR of 15-20%. This is further projected to grow to 20-25% of the market by FY 2030P at 15-20% CAGR.

Exhibit 28: Middle East Prescription Eyeglasses Market - Split by D2C Brands and Others
Market size in ₹ billion (US$ billion) for FY 2020, 2025, 2030P



Note(s): 1. Considering exchange rate of US$ 1 = ₹ 86
2. Middle East includes Saudi Arabia and the UAE
3. Rest of the market consists of brands sold through traditional intermediaries such as wholesalers and third-party retailers
Source(s): Redseer research & analysis

Overview of Supply Chain and Key Success Factors

The prescription eyeglasses' value chain (involving product design, procurement of lenses and frames, manufacturing of finished eyeglasses, retailing, along with horizontal adoption of technology and R&D along the entire value chain) is intrinsically complex and difficult to execute. As a result, this value chain has traditionally been highly fragmented with multiple intermediaries, providing limited control over product design, quality, delivery timelines, and pricing for unorganised and traditional organised retailers, leading to challenges for consumers. However, vertically integrated large organised retailers, especially those with centralised supply chain, are consolidating procurement of frames and lenses, manufacturing of finished prescription eyeglasses, and omnichannel retailing, by embedding technology-led automation, R&D-driven product improvement, eliminating intermediary margins, and just-in-time inventory systems that minimise stockholding by aligning supply with real-time demand. Hence, these business models are better positioned to deliver a better value proposition to consumers with wider fashionable assortments, affordable pricing, faster fulfilment, and standardised and enhanced product quality and experience.

Overview of Retail Business Models Globally

Retailing of prescription eyeglasses globally encompasses a diverse array of business models, each tailored to local market characteristics and varying degree of presence (and hence control) across the value chain. These models primarily include unorganised retailers, traditional organised retailers, large organised retailers, and other emerging retailers (such as pure-play online retailers, and the eye care provider model).

Exhibit 29: Overview of Major Retail Business Models by Level of Control over Value Chain

Descriptive

Degree of control across the value chain:

Low ○ ——— ● High

Business models		1. Product design	2. Procurement of lenses & frames	3. Manufacturing of finished eyeglasses	4. Retailing	5. Technology and R&D
Unorganised		○	○	○	◔	○
Traditional organised		○	◔	◑	◑	◔
Large organised	Partially integrated value chain	◑	◑	◑	◕	◑
	Vertically integrated with decentralised supply chain	●	◕	◕	●	◕
	Vertically integrated with centralised supply chain	●	●	●	●	●

Source(s): Redseer research & analysis

1. *Unorganised Retail Model:* The unorganised retail model consists of small, independent retailers with fewer than five stores. These retailers operate through fragmented, store-dependent service structures. This model is prevalent globally, dominating prescription eyeglasses retailing in markets like India and emerging Southeast Asia. In these markets, unorganised retailers primarily offer unbranded and entry-level cheaper brands, particularly in smaller cities. Conversely, in developed markets such as Singapore, the Middle East, and Japan, these retailers are typically long-standing, family-run businesses that stock a wider range of domestic branded frames and cater to older demographics.

2. *Traditional Organised Retail Model:* This model consists of regional chain stores with fewer than 30 stores, with some standardisation in store format, product assortment, and service vis-à-vis unorganised stores, developing some customer loyalty through word-of-mouth and localised promotions. These focus on branded products at mid-to-premium price points and provide greater quality and breadth of products and improved service compared to unorganised players, but with limited backend integration and localised nature of operations. Traditionally, these retailers have relied on white-labelling frames rather than in-house production, which limits their ability to fully optimise product design, control quality, and drive innovation across the value chain. This model is more prominent in developed markets such as Japan and Middle East, as well as larger cities of emerging markets like India and Southeast Asia.

3. *Large Organised Retail Model:* This model features a multi-regional presence and integrated supply chains (with varying degree), delivering a standardised customer experience across 30 or more outlets. Leading large organised retailers of prescription eyeglasses globally[15] include players such as De Rigo Vision S.p.A., Essilor Luxottica SA, Fielmann AG, JINS Holdings Inc., Marcolin S.p.A., Lenskart Solutions Limited, Megane Top Co., Ltd., National Vision Holdings, Inc.,

[15] Leading large organised retailers of prescription eyeglasses globally include retailers with a revenue of more than ₹ 43 billion (US$ 500 million) as of CY 2024 and more than 30 physical stores

Safilo Group S.p.A., Specsavers Optical Group Ltd, Synsam Group AB, and Warby Parker Inc. while those in India[16] include players such as Eyegear Optics India Private Limited (Ben Franklin), Gangar Opticians Private Limited, GKB Opticals Limited, Lawrence And Mayo (India) Private Limited, Specsmakers Opticians Private Limited, and Titan Company Limited (Eyecare Division). There are three kind of approaches that retailers follow in this model depending upon their presence across the value chain and manufacturing capabilities:

- *Partially Integrated Value Chain:* This approach encompasses retailers with presence across few stages of the prescription eyeglasses value chain. For instance, some of these retailers manage the design and direct-to-consumer retailing but outsource manufacturing of frames and lenses to third parties, while others manage design and manufacturing of frames and lenses, but depend on distributors for retailing, with limited direct-to-consumer touchpoints. These players typically offer third-party licensed brands with few players having their own brands. They are focused on premium positioning and high-touch retail experiences. However, they often struggle to scale in diverse markets or adapt product and pricing due to reliance on third-party brands. This approach is common in developed markets such as Japan, Singapore, and the Middle East, and in major cities within emerging markets such as India and parts of Southeast Asia.

- *Vertically Integrated Value Chain with Decentralised Supply Chain:* This approach encompasses retailers that have complete integration and control across all stages of the value chain, with managed design and manufacturing of frames, lenses, and finished prescription eyeglasses, owned brands and omnichannel retailing. Supply chain for manufacturing finished prescription eyeglasses, for such retailers, is however not co-located/centralised. This approach enables better control over quality, pricing, timelines, and product design, when compared to partially integrated and traditional retailing models and is seeing early traction in developed markets such as Japan, Singapore, and the United States.

- *Vertically Integrated Value Chain with Centralised Supply Chain:* This is the newest and most innovative approach in the industry, involving complete control across all stages of the value chain along with co-location of supply chain for manufacturing of finished prescription eyeglasses. This results in increased agility across the value chain enabling better control over quality, faster delivery timelines, real-time product design-to-manufacturing feedback loop, and better pricing enabled by cost savings due to just-in-time inventory management.

4. *Other Models:* Other retail business models include the pure-play online retail model and the eye care provider model. The pure-play online retail model is effective in urban areas with high digital penetration. The eye care provider model, run by hospitals and clinics, offers prescription eyeglasses within medical services, but prioritises healthcare over retail, with prescription eyeglasses sales as a secondary focus.

Retail Business Models Vary in Terms of their Presence and Control Over the Value Chain

Product Design

Product design in prescription eyeglasses encompasses dimensions of frame design, lens design, and their integration from functional, technological, and aesthetic perspectives.

- *Frame Design* - Frame design defines geometry (shape, size, nose bridge, and temple configuration) ensuring a fit across facial profiles. Designers balance aesthetics (style, colour, trends) with functional elements like weight distribution, pressure points, and flexibility. Frame style is influenced by fashion trends and materials impacting both durability and visual appeal. Frames require dimensional drawings, CAD modelling, lens fitting tolerances, and hinge integration. Variants cater to different demographics, with compliance to safety and structural standards.

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[16] Leading large organised retailers of prescription eyeglasses in India include retailers with a revenue of more than ₹ 500 million (~US$ 6 million) as of FY 2024 and more than 30 physical stores

Exhibit 30: Commonly Used Frame Materials
Descriptive

Frame Material	Relative Price	Benefits
Thermoplastics (TR)		Affordable, lightweight, flexible
Acetate		Durable, hypoallergenic, premium feel
Stainless Steel		Strong, corrosion-resistant, durable
Titanium		Ultra-lightweight, superior durability, hypoallergenic
Other Metals (Aluminium, Zinc, Copper, Beryllium)		Strength, corrosion resistance (specifics vary by metal)

Note(s): Considering exchange rate of US$ 1 = ₹ 86
Source(s): Redseer research & analysis

- *Lens Design* - Lens design begins with prescription mapping, base parameters (index of refraction, base curve, diameter), and lens type (single vision, bifocal, progressive). Lenses are digitally or conventionally surfaced and optimised for frame size. Design factors include style (lens shape and colour) and functional coatings like anti-reflective, scratch-resistant, UV-protective, hydrophobic, oleophobic, and blue-light filtering. These coatings are applied to maintain optical clarity, durability, and comfort. Final design considers centration, thickness optimisation, and aesthetic finishes (e.g., edge polish, tinting), especially for high-power or customised lenses.

- *Fit Optimisation* - Designs are tested for weight distribution, face compatibility, heat tolerance (for fitting), and wearability over long durations.

Complexities in the Design Process

The design of prescription eyeglasses is an intricate process, demanding a balance of optical precision, engineering detail, user-centric ergonomics, and style. Even small dimensional errors in frame geometry can lead to inconsistent fit, slippage, pressure points, and lens incompatibility. Achieving a comfortable fit for diverse facial structures requires iterative prototyping, real-world trials, and virtual prototyping tools, balancing aesthetics with practicality.

Lens design integrates optical correction with mechanical performance and aesthetic quality. High-index lenses, progressives, and prism-corrected variants require exact calibration, as minor deviations can introduce distortions or discomfort. The multi-coating process demands precise control over layer adhesion, curing cycles, and material compatibility to ensure clarity and durability.

Creating quality prescription eyeglasses requires expertise in optics, materials science, ergonomics, fashion trends, and manufacturing. Although the final product appears straightforward, achieving consistency and reliability at scale presents a challenge for new entrants. Products developed without sufficient rigor often underperform in comfort, durability, or clarity, which can undermine repeat purchases, increase returns, and erode brand trust.

Procurement of Frames and Lenses

Procurement of frames and lenses itself is a multi-layered process that traditionally involves the manufacturing of frames and lenses and their distribution to retailers through a complex network of intermediaries separately, with distribution variances between branded and unbranded products.

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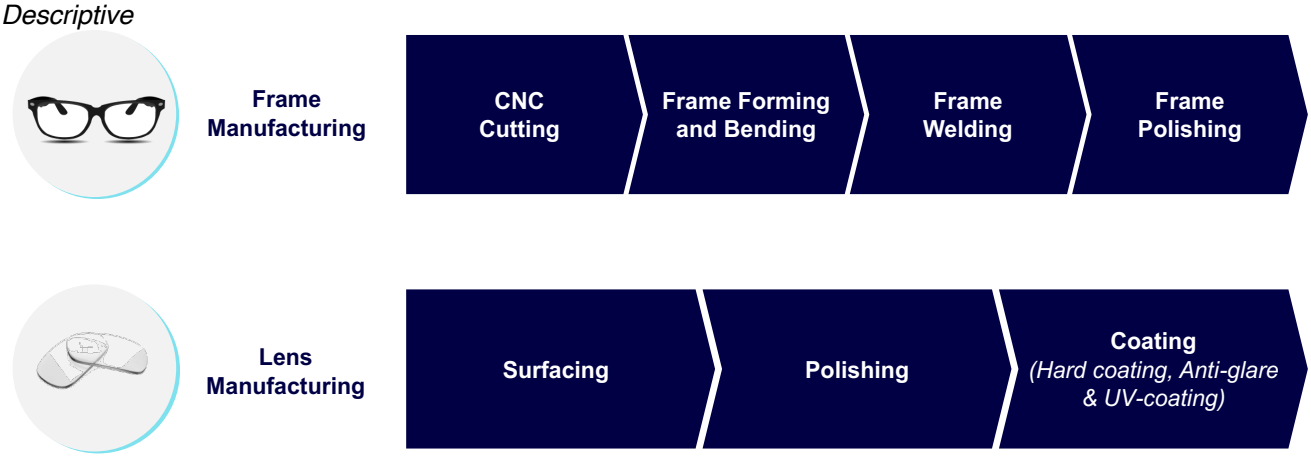
Exhibit 31: Frame and Lens Manufacturing Processes

Descriptive



Source(s): Redseer research & analysis

Frame manufacturing and complexities involved

Frame manufacturing involves the production of individual components, surface finishing (polishing and coating), and precise assembly. Manufacturing these frames to be lightweight, durable, skin-safe, and comfortable requires sophisticated capabilities.

- *Material selection and specific handling requirements:* Frame materials such as acetate, thermoplastics, stainless steel, titanium, and other alloys each demand distinct processes. Acetate frames undergo sheet-cutting, tumbling, and hand polishing, whereas metal frames rely on precision welding, CNC shaping, and surface treatments like electroplating. Manufacturers may develop expertise across all processes or specialise in particular materials.

- *Barriers posed by development of moulds and dyes:* Custom-engineered tools for injection moulding or metal stamping entail high upfront investment. Each new frame size typically requires its own mould, making production capital-intensive and slowing time to market. Tooling errors can cause misalignments, leading to rework or quality rejections.

- *Complexities associated with precision manufacturing*: Ensuring consistent dimensions, hinge alignment, and surface finish across batches adds further complexity. Deviations can compromise lens alignment and overall product quality.

- *Scaling challenges due to a lack of skilled labour and advanced machinery*: Scaling production depends on skilled labour, precision machinery, and advanced finishing technologies such as lamination or anodising. In India, the frame manufacturing ecosystem remains nascent, with limited infrastructure for high-volume output. As a result, many retailers import from established Chinese clusters in Xiamen and Guangzhou, which benefit from mature supply chains, economies of scale, and specialised labour - making domestic alternatives challenging on cost, capacity, and quality.

Lens manufacturing

The manufacture of lenses requires high optical precision. Single vision lenses are typically mass-produced at scale and are often pre-manufactured to standard prescriptions, with their manufacturing being highly consolidated in regions with strong industrial ecosystems. Danyang, China, stands out as a global hub due to its integrated prescription eyeglasses manufacturing base, availability of skilled labour, and established supply chain networks.

Exhibit 32: Commonly Used Lens Materials

Descriptive

Average Trade Price for Single Vision Lenses

₹ 86 (US$ 1) ○ ● ₹ 1,290 (US$ 15)

Lens Material	Relative Price	Benefits
CR-39 (Columbia Resin-39)	○	Cost-effective, adequate optical performance
Polycarbonate	◑	High impact resistance, suitable for rimless designs
Trivex	●	Superior optical clarity, lightweight, built-in UV protection

Note(s): Considering exchange rate of US$ 1 = ₹ 86
Source(s): Redseer research & analysis

Progressive lens manufacturing is a relatively niche capability within the prescription eyeglasses value chain, shaped by high technical complexity, precision requirements, and R&D intensity. It is typically carried out in advanced laboratories by few

global manufacturers, often located near demand centres, to accommodate the high degree of customisation required for individual prescriptions. Manufacturing of progressive lenses begins with lens blanks, which are semi-finished pieces of optical material. These undergo subsequent processes, such as surfacing, finishing, polishing, coating, and inspection of lenses, before being fitted into eyeglass frames. Although the lens at this stage is not yet shaped for a specific frame, it is optically complete, fully coated, and quality assured. The steps and complexities involved in progressive lens processing are detailed below:

- *Complexity in lens blank selection and matching:* The process begins with the selection of an appropriate lens blank. These blanks are pre-moulded with a standardised front surface curvature. The back surface remains unfinished to allow for individual prescription customisation. Selection is based on parameters such as refractive index, base curve, diameter, functional attributes and raw material required for the final lens. The choice of raw material directly affects downstream processing and lens performance, as each material responds differently to grinding, polishing, and coating, requiring specialised equipment and processes tailored to the specific material properties of the chosen blank.

- *High precision requirements in surfacing operations:* Prescription values are applied to the back surface of the lens blank using precision-controlled surfacing equipment. In most modern laboratories, digital or freeform surfacing is used, employing computer-guided lathes that sculpt the optical surface with sub-micron accuracy. This stage defines the lens's optical characteristics, including spherical power, cylindrical correction, axis, and near addition, where applicable. The surfacing process is fraught with the risk of minute inaccuracies, as even slight deviations in the optical power or alignment can result in visual distortion.

- *Process sensitivity in fining and polishing:* After surfacing, the lens undergoes fining to remove the coarse texture left by the generator. This is followed by polishing, which restores optical clarity and ensures the surface meets required transmission and visual standards. These steps are essential to eliminate micro-imperfections and prepare the lens for downstream coating applications.

- *Precise sequencing and careful handling in coating application:* Once polished, the lens receives multiple coatings that enhance durability, comfort and performance. Hard coatings improve scratch resistance, while blue light coatings help reduce digital eye strain. Photochromic coatings, which adapt to changing light by darkening outdoors and clearing indoors, are emerging as a popular trend for added convenience. Multi-coating options combine features such as anti-glare, UV protection, and scratch resistance, making them standard in premium lenses. Applying these coatings in multiple layers requires precise sequencing, controlled temperature and humidity conditions, and careful handling to prevent defects or uneven finishes.

- *Stringent validation in inspection and quality control:* Before release, the lens undergoes comprehensive inspection. Prescription accuracy is validated using lensometers or automated systems, while surface integrity is examined under specific lighting to identify any cosmetic or functional defects. Alignment markings are applied to guide later positioning. Only lenses that meet all optical and aesthetic standards are approved for dispatch.

- *High levels of customisation impacting scalability:* Progressive lenses are increasingly expected to accommodate a wide range of prescription parameters - including spherical and cylindrical powers, axis orientations, and additional features such as blue-light filtering, anti-reflective coating, or photochromic behaviour. Managing this level of variability necessitates detailed clustering strategies and inventory planning to meet service level requirements without excessive working capital.

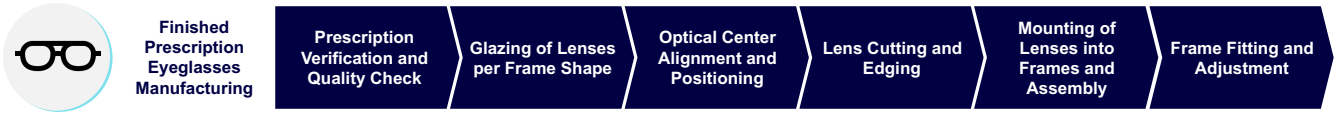
The high degree of customisation and capital investment requirements in high-precision equipment for manufacturing progressive lenses present operational challenges for new entrants. Consequently, the industry remains reliant on imports from more mature manufacturing ecosystems. In emerging markets such as India, some manufacturers have begun establishing local lens production facilities. As a result, progressive lens manufacturing in India has gained momentum, particularly in grinding, coating, and prescription customisation. A decade ago, China's lens procurement cost was 40-45% lower than India's on average. However, this gap has now narrowed to ~25% (as of FY 2025), driven by the rising import duties and advancements in India's optical manufacturing capabilities. India's progress in progressive lens manufacturing signals a shift in supply chain dynamics. With growing investments in high-value optical manufacturing, the country is steadily building a stronger foothold in the global prescription eyeglasses industry.

Distribution of frames and lenses, and the complexities involved

The global prescription eyeglasses supply chain is characterised by import dependence, with frames and lenses largely sourced from specialised manufacturing hubs. Often, multiple parties are involved with distribution to the retailers, with variations across branded and unbranded products. Unbranded lenses and frames are largely imported, and wholesalers procure the products in bulk from importers to sell to distributors. Distributors then supply the products to retailers in their respective regions of operation. In case of branded products, the supply chain is relatively shorter, as leading brands disseminate products through authorised national distributors, followed by regional distributors. Each layer adds complexity, contributing to fragmented inventory and limited supply chain visibility. The distribution structure in the traditional supply chain remains rooted in offline ordering systems and decentralised post-order processing.

Manufacturing of Finished Prescription Eyeglasses

Exhibit 33: Finished Prescription Eyeglasses Manufacturing Processes
Descriptive



Source(s): Redseer research & analysis

Traditionally, the manufacturing of finished prescription eyeglasses begins once the optical retailer has received the processed lenses and frames. Traditional prescription eyeglasses retailers in India typically procure lenses from global manufacturers through multiple layers of distribution. The first step is to verify that the lenses correspond to the prescription, which is typically done using a lensometer to check the power and alignment. Once verified, the retailer moves on to the glazing - the precise fitting of the processed lenses into the selected frame. This process requires careful consideration of the frame size and shape to ensure a secure fit. The lenses are centred and aligned properly, marking the optical centres for perfect positioning. For progressive lenses, additional precision is required to ensure the alignment of the near and distance sections of the lens with the wearer's visual needs.

The lens is then manually cut to fit the frame. This step is typically done using an edging machine, which trims the lens to the correct size and shape. Depending on the frame style, the lenses might be cut into specific shapes such as circular, oval, or custom geometries to match the frame's unique design. The goal is to ensure that the lens fits within the frame's groove or mounting structure.

After the lens is cut, it is carefully mounted into the frame. For this step, different frame materials, such as metal, plastic, and acetate, require specific techniques. The lens is either held in place by frame rims, screws, or sometimes adhesives, depending on the frame design. Following the lens placement, the frame may need to be adjusted to ensure that the eyeglass fits comfortably on the wearer. This involves modifying the nose pads, adjusting the temple length, and ensuring the overall comfort and visual alignment of the finished pair.

In contrast to traditional retail-based manufacturing, large vertically integrated organised retailers typically manufacture finished prescription eyeglasses in optical laboratories or factories rather than in-store. These facilities are equipped with advanced machinery, such as automated edging systems, that enable automated lens cutting and fitting with extremely high precision. By shifting this process away from the retail stores, these players achieve several advantages: tighter quality control, reduced error rates, better consistency in optical alignment, and enhanced comfort due to precise fit, as manual handling of lenses is not as precise as robotic handling. Automation also enables faster turnaround times and scalability, allowing high volumes to be processed efficiently without compromising on accuracy. As a result, these centralised workflows minimise manual intervention, reduce remakes and defects, and ensure that complex prescriptions and lens geometries are handled more effectively than in a manual or semi-automated retail setting. However, centralized robotic machines are capital-intensive and economically viable only at high manufacturing volumes.

Complexity in Manufacturing of Finished Prescription Eyeglasses

The manufacturing of finished prescription eyeglasses is a complex process that demands precision throughout.

- *Precision requirement during glazing:* The glazing phase involves the intricate fitting of processed lenses into frames, where even minor inaccuracies can compromise both the optical function and aesthetic integrity of the finished product. Precision is required in cutting the lenses to the exact size and shape necessary to fit within the frame, while also ensuring that the optical centres align correctly with the wearer's eyes.

- *Requirement of skilled labour and specialised machinery:* The process also requires skilled labour, as technicians are expected to be proficient in handling different frame materials and understanding the distinct challenges posed by each. Moreover, the equipment used, such as edging machines, fitting jigs, and specialised tools, need to be calibrated with high precision. Any slight miscalibration can result in improperly fitted lenses, misaligned optical centres, or damaged frames, making the entire process more challenging. The dependency on skilled personnel and precision equipment at the store level also poses a challenge when scaling up retail operations, as it becomes increasingly difficult to ensure consistent quality and technician availability across a larger network of stores.

Retailing of Prescription Eyeglasses

Retailing of prescription eyeglasses involves two key elements: channel presence across offline and online formats, and retail experience delivered at the point of sale, both of which shape customer reach and purchase behaviour. Within this, channel presence dictates reach and availability, while retail experience (determined by availability of affordable and consistent eye tests, assortment depth and customisation options, value for money, and assisted selling) directly influences conversion and customer satisfaction. As a result, the traditional retail value chain often struggles to balance depth of offering, personalisation,

professional guidance, and affordability of offerings, thereby impacting both customer experience and the consistency of service delivery across touchpoints.

Omnichannel approach expands customer reach, improves conversions, and increases digital adoption

Prescription eyeglasses are retailed through three approaches: offline-first, pure-play online, and omnichannel.

- The offline-first approach, adopted by unorganised and traditional organised retailers, remains the most prevalent globally. These retailers benefit from localised trust of existing customers leading to higher conversions amongst this cohort. However, new customer reach and access is limited. Further, decentralised in-store inventory also limits the assortment and customisation options offered by these retailers, thereby impacting conversions.

- Retailers adopting the pure-play online approach offer a wider assortment, digital try-ons, and doorstep delivery, catering to convenience-driven, digitally native consumers. However, adoption by consumers at large remains limited due to the lack of trust in fit and accuracy, and the inability of these retailers to offer physical trials, and value-added services such as eye-testing.

- The omnichannel model adopted by vertically integrated large organised retailers facilitates higher customer conversion rates as compared to models relying exclusively on either the online or offline channel. By integrating physical and digital experiences, it enables customers to browse, try, purchase, and access services across touchpoints. An online presence improves customer reach and awareness with personalised targeting, while an offline presence improves conversions by enabling physical trials, complementary eye-testing, and assisted sales. Some of them adopt a low-inventory or digitally assisted store model, offering the full product catalogue digitally while minimising in-store stock, which reduces inventory costs and allows for smaller, more efficient retail spaces without compromising customer choice.

Retail experience and challenges with traditional models

Several factors influence the retail experience for prescription eyeglasses: the availability of consistent and affordable eye tests, breadth of assortment and customisation options, value for money and assisted sales. These elements are crucial for high-involvement products like prescription eyeglasses, where aesthetics and optical clarity are equally important.

Within traditional offline-first and pure-play online formats, however, the ability to deliver a consistent and high-quality experience across these dimensions remains limited due to operational constraints.

- *Availability of consistent and affordable eye tests:* Eye testing plays a foundational role in the prescription eyeglasses value chain, ensuring that the product meets their visual needs with precision. In traditional offline-first models (including unorganised retailers and traditional organised retailers), access to qualified optometrists and reliable diagnostic tools is inconsistent, often limiting the scope and quality of service. Pure-play online formats typically rely on users to upload existing prescriptions, making them less equipped to serve first-time users or those with changing vision needs. Large organised retailers address this gap by embedding free or subsidised eye tests into their in-store experience, using them as a driver of footfall, conversion, and brand loyalty.

- *Number of SKUs / Customisation options:* A major component of retail experience is the breadth of choice available to the customer, across frame styles, materials, colours, sizes, and lens specifications. Availability of coatings such as anti-reflective coatings or blue light filters further allow customers to tailor the product to their comfort and usage patterns. In the traditional offline-first model, the range of SKUs and customisation capabilities are severely constrained. Small-format stores operate with limited shelf space and working capital, resulting in narrow assortments often focused on fast-moving or higher margin SKUs. The lack of integrated digital tools also prevents real-time visibility into extended catalogues, thereby restricting customer choice.

- *Value for money:* Customer satisfaction hinges on the perceived value for money. For consumers globally, the importance of quality for the price paid is increasingly becoming a core-part of their purchase decision making. Unorganised and traditional organised models have an inconsistent product quality and higher costs as these retailers often rely on third-party suppliers, primarily based in China, for design and manufacturing of frames and lenses (suppliers of frames and lenses, labour/local contractors for manufacturing of finished prescription eyeglasses). Additionally, these models typically have a limited customer feedback loop, restricting their ability to quickly identify and address quality or service issues, which further impacts perceived value and customer loyalty.

- *Assisted sales:* Given the dual-functional nature of prescription eyeglasses requiring both medical accuracy and aesthetic appeal, specialist guidance at the point of sale is a crucial determinant of customer experience. Assisted sales involve optometric consultation, interpretation of prescriptions, lifestyle-based product recommendation, and help with frame selection based on fit and face shape. In the traditional retail formats, the quality and consistency of assisted sales remains a challenge. Sales personnel often lack formal training and rely on anecdotal experience, which can lead to incorrect or unsuitable product recommendations. Moreover, without standardised selling protocols or digital selling aids, the customer journey is largely unstructured and heavily dependent on individual staff competence, resulting in widely varying outcomes.

Technology Adoption and Research and Development

Technology and Research and Development (R&D) serve as horizontal enablers across the prescription eyeglasses value chain, shaping advancements in design, manufacturing, and retail. While technology facilitates operational efficiency, precision, and personalisation, R&D drives product innovation across materials, coatings, lens science, and design ergonomics, ultimately enhancing both product performance and consumer experience.

- *Product design and development:* In this stage, these capabilities enable the use of advanced lightweight materials (such as TR90, titanium alloys, and memory plastics), hypoallergenic or skin-friendly coatings, and frame engineering for improved comfort and durability. In lenses, continuous innovation around progressive designs, anti-fatigue zones, blue light filters, and high-index materials allows for thinner, lighter, and more specialised solutions tailored to different visual profiles and lifestyles.

- *Manufacturing of finished prescription eyeglasses:* On the manufacturing side, technology adoption and R&D spends support in the optimisation of surfacing techniques, coating durability, and scratch resistance. Further, technologies such as visual analytics can enable better quality control by driving higher traceability.

- *Retailing:* In retail, innovations such as digital frame measurement and personalised fitting algorithms draw on both technology and R&D inputs to deliver higher precision and customisation. Further, tools such as digital try-on and digital catalogues also enable in easing the customer purchase decision making.

Limited technology adoption and R&D spending in traditional retail formats

Despite the strategic importance of these levers, traditional retail remains largely disconnected from both technological advancement and formal R&D pipelines. Most unorganised and traditional organised retailers source ready-made frames and lenses from third-party distributors, with little visibility into underlying material properties, coating compositions, or optical design logic. There is little internal capacity or access to evaluate or select products based on technical performance metrics. In retail stores, diagnostic tools and selling processes remain analogue, with minimal adoption of innovations in virtual visualisation, digital optometry, or guided recommendation systems. The focus is typically on commercial assortment rather than product differentiation or innovation-driven value creation.

This limited adoption of technology and R&D in traditional formats stems from operational constraints. Investments in advanced tools, materials, and design capabilities demand scale, capital, and specialised human resources, all of which are beyond the reach of most unorganised and traditional organised retailers. Further, R&D-driven product development necessitates coordination with manufacturers and lab partners, along with an understanding of customer needs and usage contexts - capabilities that are absent in fragmented, transactional distribution setups. On the technology side, the absence of interoperable systems and trained personnel restricts the deployment of digital tools, even where basic infrastructure is available. Lastly, without centralised data capture or feedback loops, traditional retailers are unable to generate or leverage insights that typically feed into iterative product or process innovation.

As a result, technology and R&D have emerged as differentiators for integrated and modern players. However, the traditional retail model remains product-agnostic and manually operated, with limited ability to create or deliver technically advanced or personalised prescription eyeglass solutions.

Vertically Integrated Value Chain and Centralised Supply Chain are Key Success Factors

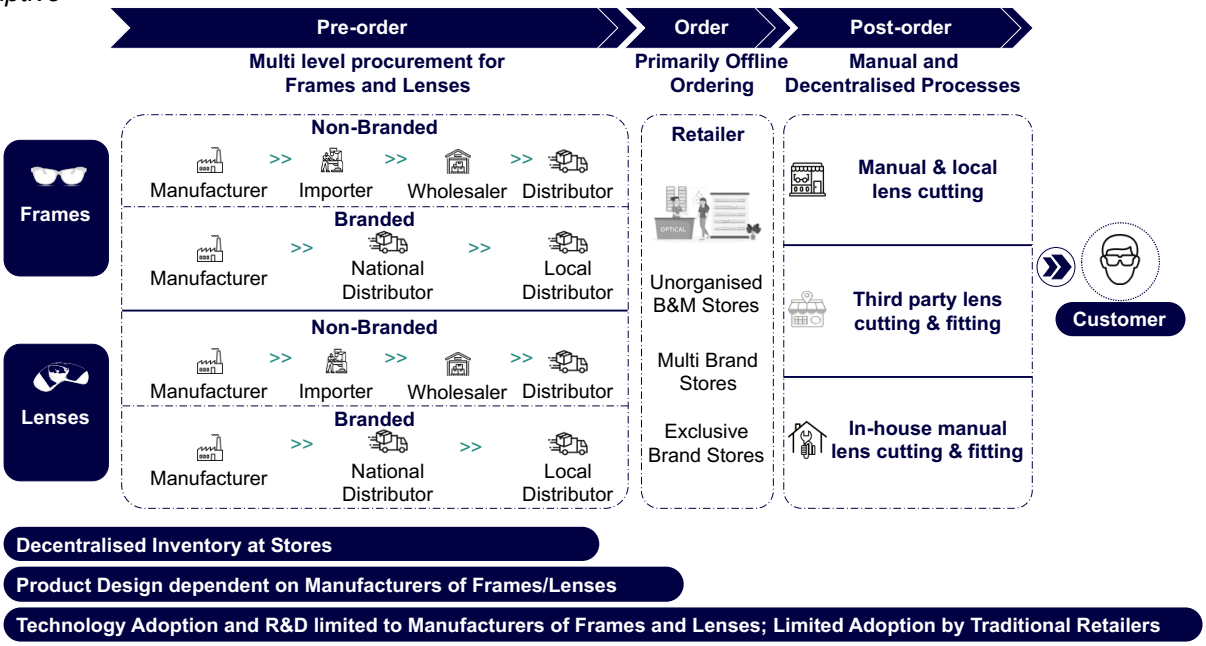
Traditional Value Chain for Prescription Eyeglasses is Fraught with Challenges for All Stakeholders Involved

The value chain for prescription eyeglasses is complex, involving high degree of precision and accuracy to create a made-to-order product for every customer. This process entails product design, procurement of frames and lenses (involving manufacturing, distribution of frames and lenses, and lens processing[17]), manufacturing of finished prescription eyeglasses (including glazing of lenses and fitting into frames to create a finished product), and retailing of prescription eyeglasses.

The traditional prescription eyeglasses supply chain is fragmented and disaggregated, involving manufacturers, importer/brands, wholesalers, distributors and retailers before the product reaches customers. It is characterised by multi-layered procurement and cutting and fitting processes that are often managed by individual retailers or local merchants serving a limited number of retailers. Cutting, edging, polishing, and fitting processes are often managed by individual retailers in-store (by hiring skilled professionals) or by local third-party contractors serving a limited number of retailers. Inventory is decentralised in stores. Product design is completely dependent on manufacturers of frames and lenses with limited control of retailers. While technology adoption and R&D is limited to manufacturers of frames and lenses, with limited adoption by retailers. This multi-tiered approach in the tradition supply chain increases lead times, costs and contributes to inefficiencies around quality and delivery timelines in the supply chain. The graphic below sets out an overview of the traditional prescription eyeglasses supply chain for unorganised and traditional organised retailers.

[17] Lens processing involves surfacing, finishing, polishing, coating, and inspection of lenses

Exhibit 34: Traditional Prescription Eyeglasses Supply Chain
Descriptive



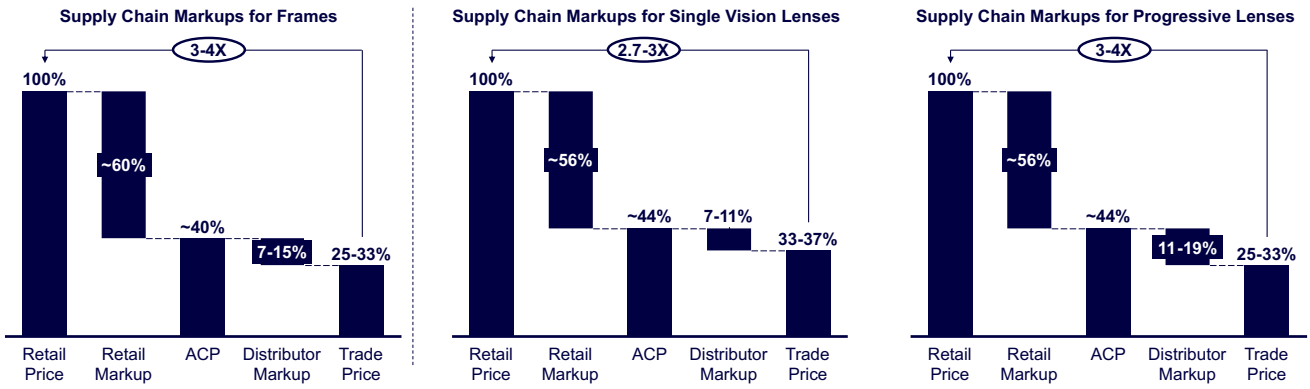
Source(s): Redseer research & analysis

The Presence of Multiple Intermediaries Across the Value Chain Drives Up Retail Prices

The highly fragmented traditional value chain structure considerably drives up trade prices across the value chain with markups from multiple intermediaries involved (including importers, national and regional distributors, and wholesalers) before the product even reaches the retailer.

In emerging markets such as India, where players in the dominant unorganised channel rely heavily on importers, wholesalers and distributors for procuring frames and lenses, markups on frames typically range between 3-4x over the trade price. Lenses typically have a greater variance in the markup, typically ranging from 2.7-4x over the trade price, with progressive lenses incurring higher markups than single vision lenses and unbranded lenses incurring higher markups than branded ones. Branded lenses typically offer retailer markups of 40-50%, while unbranded lenses have large variance in markups depending on the scale and business model of the retailers, going as high as 100%. Moreover, within the branded market, developed markets such as the Japan, Singapore, and the Middle East command even higher markups, frequently exceeding 4x the trade price, due to elevated operating expenses incurred by retailers, substantial investments in brand positioning and service infrastructure, and higher purchasing power of customers.

Exhibit 35: Markups for Frames and Lenses in India
As % of Retail Price



Note(s): 1. Distributor margin is the margin captured by parties between manufacturer and retailer, which may constitute some of or all the following: importers, wholesalers, national and regional distributors
2. ACP is the average cost price for frames and lenses incurred by traditional retailers
Source(s): Redseer research & analysis

This fragmented and decentralised nature of the traditional supply chain creates multiple challenges for consumers purchasing prescription eyeglasses leading to lower value for money, inconsistent product quality, long delivery times, and limited fashionable assortment and customisation options.

The business models vary across the value chain from design capabilities, procurement of frames and lenses, manufacturing of finished prescription eyeglasses, and retailing approaches. Furthermore, these models also vary substantially in their deployment of technology and R&D capabilities, which influence all the stages of value chain.

Exhibit 36: Comparison of Retailing Business Models across Key Parameters along Value Chain

Descriptive

Favourability

Low High

Value Chain Stage	Parameter	Unorganised Retail Model	Traditional Organised Retail Model	Large Organised Retail Model		
				Partially Integrated Model	Vertically Integrated Model (Decentralised Supply Chain)	Vertically Integrated Model (Centralised Supply Chain)
Product Design	**No. of designs**	Basic, dated designs with limited variety	Limited variety in design	Mix of third-party and owned brands	In-house design integrated with retail touchpoints enabling faster feedback loop	
	Trend Responsiveness	No control over design	Reliance on third-party brands though with limited responsiveness	Moderately trend-responsive	Slightly slower cycles due to split production	Real-time trend-responsive cycles enabled by co-located teams
Procurement of Frames and Lenses & Manufacturing of Finished Prescription Eyeglasses	**Agility in Supply Chain**	Dependent on suppliers and local contractors		• Models with managed manufacturing but limited D2C presence: Faster than traditional models, but lag in demand forecasting • Models with D2C presence but outsourced manufacturing: Faster than unorganised/ traditional organised but dependent on suppliers	Faster than partially integrated models due to end-to-end supply chain visibility and tech driven automation	Most agile model, driven by end-to-end supply chain visibility, tech driven automation, and JIT inventory management
	Share of Margin Pool	Low – due to the presence of multiple intermediaries		Higher than traditional organised model, but stages are still outsourced	Access to the entire margin pool by eliminating intermediaries	
	Inventory Turnover Ratio	Decentralised inventory, low footfall, high unsold stock	Some standardisation, steadier sales but significant unsold stock	Centralised procurement and ERP to lower unsold inventory	Advanced forecasting and rapid replenishment drive fast turnover	Centralised supply chain leads to low inventory procurement for a design, thereby reducing shrinkage
	Cash Conversion Cycle (days)	Manual processes and weak supplier leverage extend the cycle	Consolidated orders help, yet legacy systems slow cash flow	Real-time planning and strong market leverage produce a short cycle	Real-time planning and streamlined supply shorten the cycle	Real-time planning and streamlined supply chain sync minimises the cycle
	Return on Capital Employed	Limited margins due to higher fixed costs relative to scale	Modest returns due to small scale and manual processes	Scale and operational optimisation yield decent returns	End-to-end control; moderate ROI due to distributed capex	End-to-end control maximises margins, centralised supply chain reduces capex compared to decentralised models
Retailing	**Online/ Offline Reach**	Limited digital presence; relies on local, fragmented offline access	Standardised stores with some basic online visibility	Strong offline scale, often lacking full online integration	Integrated omnichannel access with free eye tests driving both online and offline reach	
	SKUs/ Assortment	Basic, limited product variety focused on essentials	Wider assortment though without significant product differentiation	Broad range with emphasis on premium selections	Deep, curated assortment driven by full-stack control: slightly staggered SKU rollout due to split production cycles	Deep, curated assortment driven by full-stack control and rapid product innovation (faster refresh rate driven by real-time feedback loop implementation)
	Brand Recall	No/low recall due to lack of differentiation	Modest regional recognition enabled by standardised store experiences	Strong recall from scale and long-established offline brand equity, though with limited reinforcement	Strong recall achieved via omnichannel strategies and compelling brand storytelling	
	Repeat Purchase Rate	Moderate repeat purchase rate driven by change in optical power or breakage of eyewear	Moderate repeat visits driven by habitual eye tests and service standardisation	Slightly higher repeat purchases moderate despite scale and standardisation	High repeat rates fuelled by fast fashion, personalised offerings and free eye tests	
	Customer Convenience	Limited to in-store interactions with minimal service extras	In-store convenience exists with some advisory support but few digital tools	Convenience is modest with some digital touchpoints, yet lacking full integration	High convenience through omnichannel access, integrated services, and free eye tests	
Technology Adoption and R&D Spends	**Level of Technology Adoption and R&D Spends**	Minimal technology adoption; limited to basic eye testing	Low to moderate tech; mostly CRM and digital catalogues	In-store tech with some procurement automation; limited integration	AI-driven personalisation, omnichannel interface integrated with manufacturing & distribution	
	Operation Efficiency		Limited to accounting and some inventory management	Higher than traditional organised, but dependence on external partners reduces efficiency gains	High operational efficiency driven by automation, better quality control, but dispersion of manufacturing sites limits consistency	Highest operational efficiency driven by automation, JIT enable by centralised supply chain driving lower costs, better quality control through visual analytics, and higher traceability

Source(s): Redseer research & analysis

Large organised models fare better across these parameters, with higher extent of vertical integration accompanying greater control over design and procurement, and precision in manufacturing finished eyeglasses. Within vertically integrated retailers, the extent of centralisation and coordination between their manufacturing facilities determines their agility and speed to market, although it also requires the players to manage complexity associated with central manufacturing, and arrange the capital required to set up and maintain the integrated setup.

Driven by these factors, vertically integrated large organised retailers with centralised supply chain can provide enhanced and consistent product quality, more fashionable SKUs, reduced waiting times for customers, all while providing value for money for consumers.

Global Competitive Landscape

The global eyewear industry operates across diverse business models defined by capability and scale, shaped further by financial capacity, market structure, and strategic priorities. Lenskart being the only leading[18, 19] vertically integrated retailer with a centralised supply chain outperforms other leading[18,19] large organized retailers of prescription eyeglasses on multiple input and output factors.

Lenskart Solutions Limited (Lenskart) is the only vertically integrated retailer with centralised supply chain, amongst leading large organised retailers of prescription eyeglasses globally[18] and in India[19], as of Financial Year 2025.

In India, Lenskart principally competes with leading[19] large organized retailers of prescription eyeglasses, which include:

- Eyewear retailers such as Eyegear Optics India Private Limited (Ben Franklin), Gangar Opticians Private Limited, GKB Opticals Limited, Lawrence and Mayo (India) Private Limited, Reliance Vision Express Private Limited, Specsmakers Opticians Private Limited, and Titan Company Limited (Eyecare Division).

- Only few of these retailers have a pan-India presence.

- None of the remaining leading large organized retailers are listed companies except Titan Company Limited which houses the Titan Eyecare division.

- Revenue from operations of these companies in Financial Year 2025 was at least ~65% lower than the India revenue of operations of Lenskart.

Globally, the leading[18] large organized retailers of prescription eyeglasses include:

- Eyewear retailers such as De Rigo Vision S.p.A., Essilor Luxottica SA, Fielmann AG, JINS Holdings Inc., Marcolin S.p.A., Megane Top Co., Ltd., National Vision Holdings, Inc., Safilo Group S.p.A., Specsavers Optical Group Ltd, Synsam Group AB, and Warby Parker Inc.

- Further, majority of revenue for most of these global eyewear retailers continues to come from developed markets such as the US and the EU, markets with fundamentally different consumer behavior, price points, and retail maturity compared to emerging markets.

- These retailers differ from Lenskart's business model as they are either partially integrated or are vertically integrated with a decentralized supply chain or primarily have a wholesale/franchisee model.

- Lenskart also faces indirect competition from global lens manufacturers such as Carl Zeiss AG, Essilor Luxotica SA, Hoya Corporation, amongst others, as lens manufacturing is a smaller part of Lenskart's business operations and from a nascent cohort of pure-play online platforms, pharmacy marketplaces and e-commerce aggregators that have begun to add eyewear as an adjacency.

The total addressable market for Lenskart is ~1.3 billion individuals and ₹ 2,429 billion (US$ 28.2 billion) by value as of Financial Year 2025

- Lenskart's geographies of presence (India, Japan, Southeast Asia and Middle East) have ~1.3 billion individuals estimated to be affected by refractive errors as of Financial Year 2025, representing ~32% of global population estimated to be affected by refractive errors. However, ~0.8 billion individuals are not able to correct their refractive error with an eyewear due to limited awareness, insufficient access to optometrists, lack of affordability, and high dependency on unorganised channels.

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[18] Leading large organised retailers of prescription eyeglasses globally include retailers with a revenue of more than ₹ 43 billion (US$ 500 million) as of CY 2024 and more than 30 physical stores

[19] Leading large organised retailers of prescription eyeglasses in India include retailers with a revenue of more than ₹ 500 million (~US$ 6 million) as of FY 2024 and more than 30 physical stores

- The total addressable market for eyewear in India is ~₹ 788 billion (US$ 9.2 billion) in India. Considering Lenskart's market share in India in Financial Year 2025 is 4-6%, this represents a significant headroom for growth. By Financial Year 2030P, the total addressable market in India is projected to grow to ~₹ 1,483 billion (US$ 17.2 billion).

- The total addressable market for eyewear in the markets Lenskart operates in is estimated at ~₹ 2,429 billion (US$ 28.2 billion) in Financial Year 2025. The addressable market comprises of ~₹ 788 billion (US$ 9.2 billion) in India, ~₹ 690 billion (US$ 8.0 billion) in Japan, ~₹ 637 billion (US$ 7.4 billion) in Southeast Asia, ~₹ 162 billion (US$ 1.9 billion) in the Middle East, ~₹ 112 billion (US$ 1.3 billion) in Taiwan, and ~₹ 39 billion (US$ 0.5 billion) in Hong Kong, as of in Financial Year 2025.

- By Financial Year 2030P, the total addressable market across all aforementioned geographies is projected to grow to ~₹ 3,601 billion (US$ 41.9 billion). The total addressable market for Lenskart internationally (across the geographies other than India mentioned above) is projected to grow from ~₹ 1,641 billion (US$ 19.1 billion) in Financial Year 2025 to ~₹ 2,118 billion (US$ 24.6 billion) in Financial Year 2030P.

The vertically integrated model with a centralised supply chain enables Lenskart to outperform other business models driven by the following factors:

Lower Costs Driven by Scaled, Centralised Manufacturing

- The vertically integrated model with a centralised supply chain allows Lenskart to retain end-to-end control over quality, reduce manufacturing lead times, and achieve greater cost efficiency compared to traditional eyewear retailers. This enables Lenskart to deliver products to customers at a lower cost and with quicker delivery timelines, with the average cost incurred for frames and lenses that Lenskart sold in India in the Financial Year 2025 being 35-40% lower than the industry average.

- Lenskart's manufacturing facility in Bhiwadi (Rajasthan) is amongst the top two vertically integrated centralised manufacturing facilities for prescription eyeglasses globally, in terms of manufacturing capacity for the Financial Year 2025.

- Centralized robotic machines are capital-intensive and economically viable only at high manufacturing volumes, adding to Lenskart's competitive differentiation.

- Lenskart manufactured the third largest number of eyeglasses globally and the largest in India, amongst leading[20,21] large organised retailers of prescription eyeglasses in Financial Year 2025.

Faster Intercity Logistics

- Lenskart has the fastest intercity logistics network amongst leading[21] large organised eyewear retailers in India, as defined by the highest number of cities covered by next-day delivery, with Lenskart being the only eyewear retailer in India providing next-day delivery across 58 cities, as of 30th June 2025.

High Consumer Reach and Wide In-house Brand Portfolio

- Lenskart operates a total store footprint of 1.73 million sq. ft. and 2,137 stores in India, which is ~2.5 times larger than the store count operated by the next leading[21] large organised retailer of prescription eyeglasses in India, as of 30th June 2025.

- Consumers are increasingly associating Lenskart with purchases of prescription eyeglasses, as exemplified by Google Trends data for CY 2024 comparing search interest over time for Lenskart vs. search terms such as "Chasma", "Eyeglass", "Specs", and "Glasses".

- As of Financial Year 2025, the two-year purchase frequency among new customer accounts acquired by Lenskart in the Financial Year 2023 was 3.62 eyeglasses as compared to India average of ~1.8 eyeglasses.

- Lenskart's direct-to-consumer strategy, with its wide in-house brand portfolio, together enhance customer experience with Lenskart having created several large eyeglass sub-brands in India, such as Vincent Chase and John Jacobs, which are among the top three eyeglass brands[22] in India, in terms of sales value and volume in Financial Year 2025.

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[20] Leading large organised retailers of prescription eyeglasses globally include retailers with a revenue of more than ₹ 43 billion (US$ 500 million) as of CY 2024 and more than 30 physical stores

[21] Leading large organised retailers of prescription eyeglasses in India include retailers with a revenue of more than ₹ 500 million (~US$ 6 million) as of FY 2024 and more than 30 physical stores

[22] Eyeglass brands include brands which sell both frames and lenses, and exclude brands which only sell lenses

Value-added Service Offerings

- Lenskart is improving the accessibility of eye tests, given the shortage of optometrists in India, and is the only leading[23] large organised prescription eyeglass retailer to offer remote optometry for eye tests in India as of 30th June 2025.

- Lenskart performed the highest number of eye tests amongst leading[23] large organised prescription eyeglass retailers in India in the Financial Year 2025 and three months ended June 30, 2025.

These factors have led to Lenskart outperforming other leading players on the following metrics:

- Lenskart ranks in the top two for B2C eyeglasses sales volumes and is the second largest retailer of prescription eyeglasses in terms of B2C revenue from operations, in Asia during Financial Year 2025, amongst leading[24] large organised retailers of prescription eyeglasses.

- Lenskart has the number one position in India and Singapore in Financial Year 2025, in terms of B2C revenue from operations, amongst leading[23,24] large organised retailers of prescription eyeglasses.

- Lenskart is India's most prominent and fastest growing leading[23] large organised prescription eyeglasses retailer, in terms of revenue from operations scale and growth respectively between Financial Year 2022 to 2025.

- Lenskart stores in India generate an average annual sales per square feet of ₹ 23,492.50 (US$ 273), which is the highest amongst the leading[23] large organised prescription eyeglasses retailers in India in Financial Year 2025.

Potential Threats & Challenges

The global eyewear industry is poised for consistent growth, driven by high-growth markets such as India, Southeast Asia, and the Middle East. However, legacy systems, category-specific complexities, and evolving consumer behaviour prevent the industry from realising its potential. These risks are particularly pronounced in high-potential, low-penetration markets, where access, affordability, trust, and scalability remain hurdles to solve for. Major risks influencing the competitive landscape include:

1. Gaps in infrastructure and diagnostics coverage may slow the adoption of eyewear in emerging geographies

The eyewear sector's expansion depends heavily on diagnostics and retail access. While ~4 billion people globally have refractive errors, penetration of prescription eyeglasses remains modest, especially in emerging markets such as India at ~35% and Southeast Asia at ~40% of refractive error incidences. This is partly due to low optometrist availability and optical store density, leading to limited last-mile availability of eye testing and prescription dispensing in these markets. However, expanding eyewear retail, increasing online penetration, and remote optometry initiatives by large organised players are beginning to address these gaps. Players investing in proactive and streamlined diagnostics gain by expanding access and accelerating first-time user adoption.

2. Fragmented service experience in unorganised retail limiting standardisation and trust

Prescription eyeglasses remains one of the most fragmented retail categories in emerging markets. For instance, in India and Southeast Asia, over 70% of prescription eyeglasses are still sold through unorganised channels as of FY 2025, which often lack standardised diagnostic tools and quality protocols. This results in wide variability in service quality, pricing, and product reliability. However, the growing footprint of organised and digitally enabled retailers is beginning to bring standardisation to the market through consistent diagnostics, consistent quality and reliability of branded lenses and frames, transparent pricing, and after-sales support. These players are shifting consumer preference toward service-led formats.

3. High customisation requirements and complexity posing scalability challenges

Unlike most lifestyle categories, eyewear products, especially prescription eyeglasses, require precision fitment, clinical accuracy, and individual customisation leading to highly fragmented SKU assortments and high working capital. Managing inventory, quality, and fulfilment at scale remains an operational challenge to solve for. However, increasing investment in supply chain, from automated lens manufacturing and just-in-time fulfilment to modular inventory design and new-age fitting tools are helping offset complexity, while enabling players to scale while maintaining personalisation.

4. Affordability gap driven by cost structures, import dependencies, and perceived value mismatch in price-sensitive markets

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[23] Leading large organised retailers of prescription eyeglasses in India include retailers with a revenue of more than ₹ 500 million (~US$ 6 million) as of FY 2024 and more than 30 physical stores

[24] Leading large organised retailers of prescription eyeglasses globally include retailers with a revenue of more than ₹ 43 billion (US$ 500 million) as of CY 2024 and more than 30 physical stores

Affordability in emerging markets is constrained by high input costs, import dependencies, and potential gaps in consumer perception. Limited domestic manufacturing scale and fragmented supply chains continue to inflate costs for retailers. Although India's ASP for prescription eyeglasses at ~₹ 2,370 (~US$ 28) in FY 2025 is nominally low, it represents a sizable outlay for many consumers. However, value-focused organised players disrupting affordability by leveraging direct sourcing, technology-driven diagnostics, and tiered pricing. As digital models scale and local manufacturing matures, value-led growth is likely to follow.

5. Surgical procedures to correct refractive errors offer an alternative but remain niche due to cost and eligibility constraints

Refractive error correction through surgical procedures such as LASIK (Laser-Assisted in Situ Keratomileusis) and SMILE (Small Incision Lenticule Extraction) is increasingly accessible across emerging markets. However, LASIK procedures range from ₹ 20,640-1,03,200 (US$ 240-1,200) in India and from ₹ 86,000-3,44,000 (US$ 1,000-4,000) in emerging Southeast Asian markets, making them considerably more expensive than prescription eyeglasses. Uptake is further limited by low perceived urgency, surgical aversion, and medical ineligibility for a share of consumers (e.g., unstable prescriptions or thin corneas). As a result, penetration of surgical solutions remains limited at <1% of refractive error population in most emerging markets, and does not impact the large-scale, recurring demand for prescription eyeglasses.

Technical/ Industry Related Terms/ Abbreviations

Term	Definition
Adaptive Lenses	Eyewear lenses that automatically adjust their tint or focus based on lighting conditions or user needs, enhancing visual comfort and performance
Adjustable Temple Lengths	Eyewear frames designed with extendable or customisable temple arms, allowing users to modify the length for a more comfortable and secure fit based on their head size and preference
AI-Driven Customisation	The use of artificial intelligence to personalise products based on individual preferences and needs
Astigmatism	An eye condition where an irregularly shaped cornea or lens causes distorted or blurred vision
Average Selling Price (ASP)	Ratio of value sales to unit sales
Awareness of Refractive Errors	An individual's understanding and recognition of their own refractive errors, such as myopia, hyperopia, astigmatism, or presbyopia, including the ability to identify symptoms and seek appropriate corrective measures
BharatNet	A large-scale government project in India aimed at providing high-speed broadband connectivity to rural areas, improving access to digital services, e-governance, and online education
Blue-Light Filtering	Lens coating designed to reduce exposure to blue light from digital screens, helping reduce eye strain
Boutique-Style Layouts	Store designs offering a premium, personalised shopping experience
CAGR (Compounded Annual Growth Rate)	Annualised growth rate for compounding values over a given time period, calculated as (Final Value/Initial Value) ^ (1/Time Period) - 1
Capsule-Edition Collections	Limited-edition product lines featuring a small, curated selection of designs, often released for a specific season, collaboration, or theme, emphasising exclusivity and trend-driven appeal
Contact Lenses	Lenses placed directly on the eye's surface to correct vision, used as an alternative to eyeglasses, and for aesthetic purposes (coloured contact lenses)
CR-39 (Columbia Resin-39)	A lightweight, cost-effective plastic material used for eyeglass lenses, known for its good optical clarity, impact resistance, and affordability.
Currency Conversion Rate	US$ 1 = ₹ 86
Customer Conversion Rate	The percentage of visitors to a website or store who complete a purchase
Developed Markets	Highly industrialised economies with stable growth, high per capita income, advanced technological infrastructure, strong financial markets, and well-established regulatory frameworks
Digital Try-Ons	Digital tools that allow users to preview eyewear or other products online using augmented reality or facial recognition technology
Digital India	A government initiative launched by the Government of India aimed at enhancing digital infrastructure, increasing internet connectivity, and promoting digital literacy to empower citizens and businesses
Digital Transactions	The electronic exchange of money or financial assets between parties using digital platforms, including online banking, mobile payments, and card transactions
Digital-First Brands	Brands prioritising digital channel for customer acquisition, sales and retention
Digitally-Influenced Spending	Consumer purchasing behaviour that is shaped by digital interactions, including online research, social media influence, digital advertisements, and e-commerce platforms
Digitally-Influenced Sales	Retail purchases driven by digital interactions, including online research, social media influence, or digital marketing, even if the final purchase occurs in a physical store
Direct-to-Consumer (D2C) Models	Business model where companies sell their products or services directly to customers online or through their own stores, without relying on intermediaries, such as wholesalers, retailers, or distributors
Discretionary Retail	Consumer spending on non-essential goods and services, includes spending on categories such as FMCG (excl. staples) apparel, eyewear, consumer electronics, consumer appliances, general merchandise, and beauty & personal care (BPC), among others; these tend to have cyclical demand,

	fluctuating with economic conditions
Disposable Incomes	Total personal income minus taxes on income
Eco-Friendly Materials	Sustainably sourced or biodegradable materials designed to minimise environmental impact throughout their lifecycle
Economic Diversification	The process of shifting an economy from reliance on a single sector to a broader range of industries
Emerging Markets	Economies that are transitioning from low-income, less developed status to modern industrial economies with higher living standards, characterised by high growth, increasing foreign investment, and expanding infrastructure
Eye Care Providers	Professionals and facilities that offer clinical eye-care services (examinations, diagnosis, treatment, LASIK) and may additionally retail prescription eyewear as a secondary service
Eyewear	Refers to prescription eyeglasses, sunglasses and contact lenses
Eyewear Accessories	Supplementary eyewear products such as clip-ons, lens care kits, designer cases, and interchangeable eyewear fittings
Eyewear Market	Retail market size for sales of frames, lenses, contact lenses and sunglasses
Eyewear Market Categories	The three main categories: prescription eyeglasses (frames and lenses), sunglasses, and contact lenses
Fashion	Fashion includes accessories, apparel and footwear
Fast Fashion	A business model focused on fast-paced design, production, and distribution of trendy, affordable apparel and accessories, often inspired by high-fashion trends and updated frequently to meet consumer demand
Financial Impact of Refractive Errors	Economic losses (e.g., productivity, healthcare costs) due to uncorrected refractive errors
Function-to-Fashion	A market shift where products originally designed for practicality or utility evolve into style-driven items, influencing consumer purchasing decisions based on aesthetic appeal rather than just functionality
GDP (Gross Domestic Product)	The total monetary value of all final goods and services produced within a country's borders over a specific period.
GDP per Capita	The GDP divided by the total population, indicating the average economic output per person.
General Merchandise	General Merchandise includes small household appliances (food preparation appliances, personal care appliances, irons, fans, heating appliances, small cooking appliances, lighting, etc.), home décor and furnishing, homeware, luggage, stationery, toys and games, footwear, and fashion accessories, etc.
Grocery	Grocery includes fresh foods such as fruits, vegetables, dairy and meat, FMCG (packaged foods and non-foods (for e.g. cleaning and laundry products)) and staples
Gross Margins (Retailers)	Profit percentage for retailers, calculated as (Retail Price - Wholesale Price)/Retail Price - 1
High-Income Households (India)	Households in India with annual income more than ₹ 1.1 million (US$ 12,791)
High-Index Lenses	Eyeglass lenses with a higher refractive index, allowing them to be thinner and lighter than standard lenses, making them ideal for higher-power (high-dioptre) prescriptions and aesthetic appeal
Hyperopia	An eye condition where nearby objects appear blurry due to a shorter-than-normal eye lens
In-Store Personalisation	Customising the in-store shopping experience based on individual customer preferences, purchase history, or behaviour to enhance engagement and satisfaction
Inventory Management	The process of overseeing stock levels, tracking product flow, and optimising supply to meet demand while minimising costs and shortages
Just-In-Time (JIT)	A supply chain strategy where materials or products are delivered exactly when needed rather than stored in advance, minimizing inventory costs but requiring precise supplier coordination
Large Organised Retailers	Multi-regional retail chains with standardised operations, defined as chains with > 30 stores
LASIK (Laser-Assisted In	A refractive eye surgery that uses a laser to reshape the cornea, correcting vision issues such as

Situ Keratomileusis)	myopia, hyperopia, and astigmatism, reducing or eliminating the need for glasses or contact lenses
Lens Coatings	Specialised treatments applied to eyeglass lenses to enhance durability, functionality, and visual comfort, including anti-reflective, scratch-resistant, UV-blocking, and blue-light filtering coatings
Lens Customisation	The process of tailoring lenses to specific prescriptions, coatings, tints, or design preferences to meet individual vision and aesthetic needs
Lifestyle Retail Spending	Spending on goods enhancing personal style or leisure, notably apparel, footwear, accessories, beauty & personal care, and eyewear
Localised Designs	Eyewear tailored to local requirements, such as anti-fog, turban-friendly, anti-dust features
Lower Middle-Class Income Households (India)	Households in India with annual income between ₹ 0.3 to 0.8 million (US$ 3,488 to 9,302)
Low-Income Households (India)	Households in India with annual income less than ₹ 0.3 million (US$ 3,488)
Market Consolidation	The process by which larger, well-established companies dominate an industry through acquisitions, mergers, or competitive advantages, reducing the number of independent players in the market
Metro Cities	Defined as Delhi/NCR (includes New Delhi, Gurugram, Ghaziabad, Noida, and Faridabad), Hyderabad, Ahmedabad, Bengaluru, Pune, Mumbai, Chennai, Kolkata
Middle East	Consists of UAE and Saudi Arabia
Myopia	An eye condition where distant objects appear blurry due to elongation of the eye lens
National Programme for Control of Blindness (NPCB)	An Indian government initiative focused on reducing the prevalence of blindness through preventive, curative, and rehabilitative eye care services, including screening, treatment, and awareness programs
Nominal GDP	The total market value of goods and services produced in an economy, not adjusted for inflation
Nuclear Households	Includes “couple only” households, “couple with children” households, and “single parent with children” households
Omnichannel Retail	A retail strategy that unifies consumer touch-points, including digital (website, mobile app, social media), physical (stores, kiosks, pop-ups), and remote/in-home interactions (phone orders, video or chat consultations, home-try-on, doorstep fitting and delivery) to deliver an integrated, consistent shopping and service experience throughout the customer journey
Optical Lens Labs	Specialised facilities where eyeglass lenses are processed from raw lens blanks, including surfacing, edging, coating, and finishing to meet prescription specifications and optical quality standards
Optical Store Density	The number of eyewear retail stores per million population in a given region, indicating market penetration and accessibility of optical products
Optometrist	A healthcare professional specialising in eye care, including vision testing, prescribing corrective lenses, and detecting eye diseases
Organised B&M	Organised Brick & Mortar includes the purchase of goods with large-scale, standardised operations, professional management, and regulatory adherence which provides better product assortment and access to the consumers. It includes chain stores, supermarkets, hypermarkets, malls, etc.
Other Retail	Other retail includes large appliances, consumer electronic, personal accessories (jewellery & watches, etc.), alcohol & tobacco, consumer health, eyewear, furniture, etc.
Penetration of Prescription Eyeglasses	Percentage of people with refractive errors using corrective eyewear
PFCE (Private Final Consumption Expenditure)	Expenditure incurred by the resident households and non-profit institutions serving households on final consumption of goods and services, whether made within or outside the economic territory
Polycarbonate	A high-impact-resistant, lightweight plastic material used in eyeglass lenses, offering durability, UV protection, and shatter resistance, making it ideal for sports and safety eyewear
Presbyopia	An age-related condition where the eye loses its ability to focus on close objects due to the hardening of the lens
Prescription Eyeglasses	Eyewear designed to correct vision based on a prescription, consisting of frames and corrective lenses

	tailored to the wearer's needs, includes computer glasses and zero-power eyeglasses
Prescription Eyewear	Consists of prescription eyeglasses, prescription contact lenses and powered sunglasses
Powered Sunglasses	Sunglasses with vision correction lenses
Progressive Lenses	Multifocal lenses that provide a gradual transition between different refractive error corrections (near, intermediate, and far), includes bifocal lenses
Pupillary Distance (PD)	The measured distance between the centres of the pupils in millimetres, essential for correctly aligning prescription lenses within eyeglass frames to ensure optimal vision clarity
Purchase Frequency	Number of units of a certain product purchased in a span of 2 years
Pure-Play Online Retail	Retail businesses that operate exclusively through digital platforms, selling products online without any physical storefronts
Reactive Approach	A decision-making approach in which action is taken only after an issue reaches critical stage or becomes unavoidable, rather than proactively addressing potential risks or opportunities
Real GDP Growth	GDP growth adjusted for inflation
Refractive Errors	Vision problems caused by the shape of the eye preventing light from focusing correctly on the retina. Includes myopia (near-sightedness), hyperopia (far-sightedness), astigmatism, and presbyopia
Retail Market	The sector encompassing businesses involved in the distribution and sale of consumer goods to end customers through various channels, including physical stores, e-commerce platforms, and direct-to-consumer models
Screen Time	The total duration an individual spends using digital screens, including smartphones, computers, and televisions, often measured for health and productivity analysis
Single Vision Lenses	Eyeglass lenses designed to correct vision for a single focal distance, either near or far; it also includes zero power lenses, which are worn for non-corrective purposes such as reducing digital-screen eye strain (e.g., blue-light coatings), providing UV or impact protection, or serving fashion and cosmetic needs
Smart Glasses	Eyewear equipped with technology such as augmented reality (AR) or audio features
Smartphone Penetration	The percentage of a population that owns and actively uses smartphones, indicating the level of mobile technology adoption
SMILE (Small Incision Lenticule Extraction)	A minimally invasive laser eye surgery used to correct refractive errors such as myopia, involving the removal of a small lenticule from the cornea to reshape it and improve vision
Social Commerce	The buying and selling of products directly through social media platforms, integrating e-commerce features such as in-app checkout, shoppable posts, and live shopping experiences
Southeast Asia	Consists of Singapore, Thailand, Malaysia, Vietnam, Indonesia and Philippines
Style-Conscious Consumers	Consumers who prioritise aesthetics, trends, and fashion appeal in their purchasing decisions, often valuing design and appearance over functional or economic considerations
Sunglasses	Eyewear designed to protect the eyes from harmful UV rays and reduce glare, available in both prescription and non-prescription forms
Supply Chain Agility	The ability of a supply chain to quickly adapt to changes in demand, disruptions, or market conditions while maintaining efficiency and service quality
Thematic Collections	Curated eyewear collections designed around a specific theme, concept, or inspiration, often reflecting cultural trends, seasonal styles, or brand storytelling
Tier 1 Cities	Defined as Lucknow, Raipur, Patna, Jaipur, Ranchi, Surat, Jammu, Madurai, Chandigarh, Rajkot, Nagpur, Hubli, Coimbatore, Bhubaneswar, Mangalore, Jodhpur, Gwalior, Tiruchirappalli, Indore, Visakhapatnam, Dehradun, Aurangabad, Rajahmundry, Nashik, Vadodara, Belgaum, Udaipur, Gorakhpur, Agra, Vijayawada, Jabalpur, Siliguri, Kolhapur, Bhopal, Goa, Varanasi, Bareilly, Dhanbad, Gaya
Tier 2+ Cities	Cities other than metro and Tier 1 in India
Tiered Product Strategies	A pricing and product differentiation approach where a brand offers multiple product variations at different price points to cater to diverse customer groups and budgets

Trade Price	The price paid by distributors for one unit of a certain product
Traditional Organised Retailer (Eyewear)	Eyewear retail chains with 5-30 stores
Unorganised Retailers (Eyewear)	Small-scale independent eyewear retailers with 1-5 stores and informal operations
Upper Middle-Class Income Households (India)	Households in India with annual income between ₹0.8 to 1.1 million (US$ 9,302 to 12,791)
Urban	Defined as areas having at least 5,000 inhabitants, density of 400 people per sq. km. or more and at least 75% of male working population engaged in non-farm activities
UV Protection Awareness	Consumer recognition and understanding of the importance of protecting eyes from harmful ultraviolet (UV) rays, which can cause long-term eye damage and vision problems
Value-Conscious	Consumers who seek products that offer the best balance between cost and quality, emphasising affordability without compromising essential product features or durability
Visual Analytics	Analysis of CCTV footage using computer vision to derive insights on factory floor operations, store operations and customer behavior.
Value-Focused Retailers	Retail businesses that prioritise affordability while maintaining product quality, catering to budget-conscious consumers
Vision 2020 - The Right to Sight	A global initiative launched by the World Health Organisation (WHO) and the International Agency for the Prevention of Blindness (IAPB) to eliminate avoidable blindness through improved eye care access and public health strategies
World Council of Optometry (WCO)	A global organisation responsible for setting professional standards, promoting eye health awareness, and advocating for the advancement of optometry as a primary healthcare profession worldwide