

Development of contact lenses as sunglasses



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We, individuals, are living in a fast-growing and high-tech world in the 21st century, many of the creative products, services and other creations make our lives become more convenient and economical. People with vision problems often struggled about when they are planning to purchase a pair of sunglasses, it is clunky and inconvenient to bring one more pair of glasses. Dozens of years ago, Essilor (Transitions Optical) has released and provided photochromic lenses worldwide that can adapt to all light conditions, which benefits lots of people with this concern. However, this technology was just limited to people who wear standard eyeglasses, leaving the contact lens wearers still need to prepare a pair of sunglasses for outdoor purposes. Taking this issue as an opportunity, Johnson & Johnson Vision announced their contact lens brand Acuvue Oasys with Transitions Optical is going to launch the revolutionary contact lens on the first half in 2019, it provides wearers with vision correction and a dynamic photochromic filter. According to Malvina Eydelman, the director of the division of ophthalmic, and ear, nose and throat devices at the FDA's Center for Devices and Radiological Health, saying that " This contact lens is the first of its kind to incorporate the same technology that is used in eyeglasses that automatically darken in the sun."(Dormehl) Undeniably, the transition contact lens that is going to release will be more successful than the conventional transition glasses, as it satisfies more consumer needs, benefits to the businesses and boost up the global economy.

As creative industries are growing and starting to become the majority of the working force, people often launched high-tech creative products that benefit a lot to the humans, it makes people's life easy and improves the

standard of living. When the photochromic lens eyeglasses first launched, many people gave positive reviews on this advance product. Steve Roberts, Hoya Lens product manager said that “ Consumers are aware of the dangers of long-term UV exposure and see friends enjoying the benefits of prescription sunglasses and photochromics which makes them receptive to the dispenser’s suggestion of this excellent option for active lifestyles” (“ Hoya has released” 20), this transition glasses give better choices to the consumer and provide ultimate experiences to the consumers. Furthermore, in a study that evaluate the performance of transition glasses on the children aged between 10 to 15 years old, the subjective evaluation shows that the vision in bright daylight and when playing outdoor sport was considerably better with photochromic compared to standard clear lenses; 88% of the participant in the trial will continue to wear the photochromic glasses, 61% participants preferred the transition glasses as it darkens in sunlight which gives better vision and reduced squinting in sunlight, and 88% of the participants’ parents give positive and favorable comments to the experience(Lakkis et al. 249). Unconditionally, this creative product was successful at that time and its application is all around the world as it benefits the people.

Nonetheless, technology is improving and creative products will be eliminated if they don’t innovate. In Hauser et al.’s study, they found that successful innovations are achieved by understanding and placing customers’ needs first, then satisfying them through the development of innovative products (688). According to U. S. Centers for Disease Control and Prevention, there are statistics shown that more than 40 million Americans

used contact lens over several years (Preidt), which means the standard glasses are no more familiar and common nowadays. Customer needs changes when their lifestyle changed, they are no longer satisfied with the standard photochromic eyeglasses, they want products that can satisfy their wants and needs, make their lives better and convenient.

According to what Win mentioned in the journal article, innovation doesn't need to be completely different, it could be an improved version of the previous product or services, a slight modification on the design flaws and unmet needs (8). The original transition glasses helped people to tackle their problems, but the product itself needs further improvement and there are limitations; people often do outdoor sports and performance, the original transition eyeglasses might block the sight and unaesthetic. With this newest innovative product that is going to launch in the market, it will address the unmet needs of the individuals. The photochromic contact lens could be defined as a symbolic product, a term that Davies and Sighthorsson defined as "when people involved make something that has meaning" (Davies and Sighthorsson 4), the transition contact lens is created to improve individuals' standard of living and become more convenient compared to the past. The Global Head of R&D for Johnson & Johnson Vision Dr. Xiao-Yu Song said that this product brings a solution to the market that helps the contact lens wearers manage the changing light conditions they face in their modern and active lives every day ("Johnson & Johnson Vision"). If the previous photochromic eyeglasses were successful, this improvement on the existing product will be more successful and easier to apply to the world.

“ A successful and profitable product starts with a good idea” (Wang et al. 4897), this statement is true because creative product usually catches people’s attention and attracts them to buy. However, creative products usually have a short life cycle, it is easy to decline so the manufacturer has to innovate and change to sustain its life in order to get a higher market share. An article stated that one of the most important aspects of an innovation definition is adding value to the company, which means the company should benefit from the innovation, for instance like increase company’s revenue and profit, improving the appeal of other products, the brand’s image and reputation or open a new consumer market (Skillicorn). Transitions Optical is the leading provider for the photochromic lenses, this creative product brought them a huge revenue and profit in previous years. However, there are competitors adopted this idea and trying to improve the product in recent years. For instance, Corning’s Thin & Dark lenses offer up to 30% thinner and lighter than the conventional glasses (Heiting). With Transitions Optical introduces their newest innovative product, it makes them stand out in the market and get a higher market share compared to the past.

Transitions Optical is the leading provider of the photochromic lenses, while Johnson & Johnson Vision is the first company to debut disposable contact lens. The partnership between them combines both their strengths to deliver a best-in-class vision care product, which the new product will open a new customer market in the future as well as improve the companies’ brand image. Chrystal Barranger, president of Essilor Photochromics and Transitions Optical said that their company have a successful history of

product innovations and has been a leader of the light-management technology for more than 28 years, such newest innovation will reflect their efforts on diversifying their product, modernize their brand and makes it relevant to the younger contact lens wearers (“ Contact Lenses Are Now Photochromic”). With more and more people start to use contact lens nowadays, there is a potential market for this innovative product which benefits the companies.

According to Hartley et al. in Key Concepts in Creative Industries, innovation is the key driver and primary mechanism of long-term economic growth and development (111). There is a link between innovation and gains in standard of living, Johnson & Johnson Vision and Transition Optical’s new idea and technology applied and developed in the original product to better improve people’s standard of living. Once people benefit from the product, they want to purchase more, then it leads to higher consumer demand of the product. When companies see a potential growth for the product in the market, they will supply more to stimulate the business profitability. Employees often benefit from business profitability; their wages will increase which give them more money to consume more goods and services. Increasing supply also brings job opportunities to the individuals, it requires more workers to produce the product, which reduces the rate of unemployment. At the same time, when businesses become more profitable, it enables them to invest and recruit more workers. Factors affecting the economy is always linked, the consumer, the suppliers and other factors; an innovative product like this could consider as a successful product as it benefits the whole world and helps sustaining the growth of the economy.

To conclude, the transition contact lens is absolutely more outstanding than the conventional transition glasses. The creativity and innovative technology that applied to this product will present a better performance, which benefits consumer, businesses and economy as a whole. Although conventional transition glasses have not eliminated, it is starting to decline as individuals' standard of living improved, they demand something more. There are no ways that transition contact lens performs poorer than the clunky photochromic glasses, it is more adaptable and handier, as well as revolves the unmet needs and offer better choices to customers.

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