Factors Consumers Consider When Purchasing Eyeglasses

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Affidavit

I hereby affirm that this Bachelor's Thesis represents my own written work and that I have used no sources and aids other than those indicated. All passages quoted from publications or paraphrased from these sources are properly cited and attributed.

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Abstract

This thesis aims to conduct a business-related research on an unexplored industry with a huge growth potential – the eyewear industry. By first considering the general factors that affect consumer behavior, this paper identifies crucial touch points for the eyeglass consumer market. Further, this study takes into consideration existing literature on the topic and complements it with potential trends and the evolution of consumer preferences to predict and test four hypotheses. Moreover, this paper analyzes how the rise of social media has impacted the market and shaped the preferences of millennials (a large consumer base). Finally, in order to record the industry's responses to these changes, this study also looks at their innovative processes and a market leader's unique value proposition. The main research question that this paper tries to answer concerns the factors that consumers evaluate before making an eyeglass purchase in the United States. To do so, a survey was set up, distributed to participants and their responses were collected and interpreted. The main conclusions of this paper indicate that consumers take into consideration various factors during the purchasing process, namely the more important ones such as frame design (which includes the shape and color) and the point of sale, and the less important ones such as price. This paper also looks at the difference in purchasing behavior related to price paid and personal income. Finally, this paper can be useful to existing and future eyewear businesses, marketers and entrepreneurs looking to enter the eyeglasses sales field in the United States.

Key Words:

eyewear industry, eyeglasses, consumer behavior, market trends, consumer preferences, innovation, sustainability

Table of Contents

List of Tables

List of Figures

List of Abbreviations

H1 – Hypothesis 1

RQ – Research Question

1 Introduction

The eyewear industry encompasses the production, manufacturing and distribution of various ophthalmic goods, among which eyeglasses, frames, contact lenses, sunglasses, specs, and other protective eyewear such as swimming goggles (IBIS World, 2021). Market demand for eyewear is driven by a range of consumer groups, notably, the visually impaired consumers, the aging population in need of corrective eyeglasses, millennials in search of screen-protection and other industries in need of sun or water protection, for example (IBIS World, 2021). The eyewear industry's presence is expanding rapidly. In 2016, the industry as a whole was valued at USD 116 billion and in 2020, the global market size was valued at USD 147.60 billion. This compound growth is projected to keep evolving at an annual rate of 8% from 2021 until 2028 as the demand for ophthalmic goods increases considerably (Grand View Research, 2021).

The focus of this paper will be put on eyeglasses specifically and the factors consumers consider when buying them. Eyeglasses alone account for over 75% of the total eyewear sales within the market and majority of purchases occur through the traditional buying process (Grand View Research, 2021). Nowadays, eyeglasses are both a need and a want as consumers look for both a gain and attraction. The Vision Council of America has found that an estimated 75% of the adult American population uses a form of vision correction with 64% relying on eyeglasses directly (Glasses Crafter, 2021). There are mainly two types of conditions people get eyeglass prescriptions for and they are called myopia (near sightedness) and hyperopia/presbyopia (far sightedness). While near sighted people have no issues seeing objects close to them – such as newspapers, far sighted people have no issues seeing things that are at a distance. About 40% of Americans are near sighted and use glasses for driving or working, for instance while the other 60% of Americans are far sighted and need glasses for reading (Glasses Crafter, 2021). Consequently, the American market has been chosen as the focus of this study. Not only is the existing market large and expanding; it is also guiding other world markets with its market-leading companies (Fromm, 2021). These companies introduce sustainable and innovative practices and cutting-edge production and marketing processes that when put together create value for customers.

As this market is relatively unexplored in terms of scholarly literature on the topic of eyeglasses, consumer behavior and industry business models, the need for such a study occurs. This study can be beneficial for established brands and marketers in the United States who are looking to understand changing market trends and the evolution of consumer preferences, but also all other stakeholders in the eyewear industry as well. For example, this paper can serve as a focus area for emerging start-up businesses looking to penetrate the eyeglasses market and revolve their business concept around the dynamic factors changing the eyewear industry. The findings of this paper will include the factors consumers consider when making purchasing decisions for eyeglasses and the ways companies have (in the past) or can (in the future) anticipate them. Therefore, in the literature review, this investigation will highlight consumer preferences and factors that impact them before building upon those ideas and detailing how the eyewear industry develops in response.

Traditionally, researchers agree on the fact that all consumers, in all instances, both consciously and subconsciously consider a certain set of factors before making purchasing decisions (Gajjar, 2013). Those factors can be grouped into five distinct categories: cultural, social, psychological, economic and personal (Gajjar, 2013). Even though consumers are thought to consider a selection of those factors, they still differ per individual consumer. For example, when buying eyeglasses, consumers first have to recognize a need; in this case, need identification usually occurs as it is prescribed medically. However, the choice of eyeglasses is still up to them. Therefore, they might consider the following factors when choosing between brands, styles, prices and designs (Gajjar, 2013):

- Culture – what is acceptable and agreeable within the culture and social class the consumer identifies with, are eyeglasses common or do consumers opt for contact lenses, for instance?
- Social factors – which style would friends, family and other reference groups be fond of? Which frames would be frowned upon?

- Psychological – what is the motive for this purchase and are there any existing beliefs and attitudes the buyer has adopted? Do they limit the consumer in any way?
- Economic – are there market restrictions or personal limitations (such as low income) that the consumer must consider?
- Personal - how do personal characteristics such as age, gender, education, marital status, occupation and lifestyle of the buyer impact their decision?
- Emotion – how do inner emotions affect a consumers' purchasing process?

These general examples relate to the eyewear commerce as much as any other, especially since it has molded with the fashion industry. Consumers are looking for fashionable, sturdy, high-quality and affordable products (Fromm, 2021). Although the study of consumer behavior is complex, by foreseeing the potential categories of factors consumers might regard, companies can attempt to engage with different target markets (Gajjar, 2013). Therefore, the above-mentioned set of visually impaired consumers can be split up into even more detail by analyzing geographical location, generational cohorts, personal values and other influences (Gajjar, 2013). As these factors' existence and influence is widely accepted in the study of consumer behavior, this paper will explore which specific causes are considered when purchasing eyeglasses. Hence the following research question has been identified:

What factors do consumers consider before making an eyeglass purchase?

The central hypothesis that this study hopes to confirm is that the eyewear industry has in fact evolved due to innovation but also consumer inclinations. In order to do so, a survey will be conducted where consumers will be asked a spectrum of questions ranging from their personal factors such as gender, age and income and more convoluted questions that touch upon their consumer choices and habits when purchasing eyeglasses. As this study is limited to the United States and exclusive to eyeglasses buyers, it will be made available through convenience sampling. The participants have not been restricted in any aspect so that personal factors and their influence can be measured (for example, age). In order to address what elements consumers consider when making purchasing decisions in this industry, the following sub-research questions have been identified:

- How similar is the purchase behavior of eyeglasses between male identified and female identified consumers?
- How does price affect customers purchasing eyeglasses?
- How strong is customers' preference towards the point of sale?
- Do emotions play a role in the eyeglass purchasing process?
- Do internet reviews affect customers when purchasing eyeglasses?

These questions were later adapted, specified, and complemented with individual hypotheses for further research and can be found under Research Model. The next portion of the paper will explore ideas regarding consumer behavior and industry-relevant information for the eyewear businesses before introducing the research model, followed by the methodology and statistical analysis of results.

2 Literature Review

2.1 Factors Affecting Consumer behavior

In a very broad sense and not necessarily related to eyeglasses, consumers are impacted by a number of factors to make a specific purchasing decision. As mentioned, researchers and marketers accept the common classification of 5 groups of factors – cultural, social, psychological, personal and economic (Shah, 2010). Each group naturally has a subgroup of elements that fit into it. Culture, being a prominent factor, considers subculture and social class as well (Shah, 2010). This commonly envelops national culture, religion, ethnic group and other geographical demographics (Shah, 2010). Although this research is based on consumers in the United States, cultural factors cannot be excluded. In a big country like the United States, where an abundance of ethnic groups, religions and national identifications are present, subcultures and social class are important to consider when targeting consumers. Firstly, considering eyeglasses, frames need to be designed so that they complement various ethnic groups and respect different religions. All companies need to be aware of the image and standard their brand carries so that no group of consumers feels marginalized, and all groups can relate to the product in a way. This could lead to bad word-of-mouth marketing and reputation that can decrease sales and brand trust (Shah, 2010).

This idea can build upon itself: how will advertisement and promotion be executed in order to appeal to a large audience and not cause harm which can in turn influence brand reputation and sales? And more significantly, how does the cultural factor tie to the economic ones? Economic factors cover the personal economic situation and the family income (Gajjar, 2013). Therefore, not only do products need to be properly designed and advertised, but they also need to be accordingly made available at an affordable price for the target group. The economic situation, although mostly considered a personal factor can also depend upon the market and government policies (Gajjar, 2013). In the United States, where a couple of leading eyewear brands are overwhelming the market by merging, a certain concern can arise for how economically and ethically aware the companies are. Consumers heavily consider price as a factor before they make a purchase (Gajjar, 2013). As far as eyeglasses go, consumers might search for a frame that seems like a quality purchase but within their price range affordability. Eyeglasses are more than just frames; lenses are a big part of the expense and brands selling eyewear need to be aware of what their customers are willing and able to spend so that they do not turn to competition.

The social factors can, in this sense, also segment the market (Shah, 2010). For example, consumers tend to base their choices on current trends, their reference groups, family and their role and status. Firstly, consumers respond to what they see as an emerging market trend, a popular product or a feature that is gaining traction. But they also respond well to what their friends and family suggest and relate to (Shah, 2010). Namely, consumers are surrounded by reference groups which are simply the people they are closely surrounded with, and they can be primary or secondary reference groups depending on how often they meet (Shah, 2010). Family falls in the primary group as consumers tend to spend a lot of time around them while friends and colleagues might fall in the secondary one. Moreover, apart from comparing themselves to what they consider socially accepted, each consumer also considers their personal role in society (Shah, 2010). A role can be related to the stage in life a consumer is in such as a student or parent, that has a specific status. This does not necessarily relate to social class but rather to whether their decisions are personal or are they, perhaps as a parent, also shopping and making purchasing decisions for a dependent consumer (Gajjar, 2013). Taking eyeglasses into consideration, students might search for colorful and bright frames while parents might search for simpler, more conservative ones. Moreover, parents would often have to make purchasing choices for their children, who are too young to be independent consumers. Thus, eyewear companies need to be aware of how to make a children's design that parents would approve of.

When considering personal factors, a big span of ideas is suggested: age, occupation, lifestyle, personality, etc.… (Shah, 2010). Each of these aspects plays a certain role on the decision-making process. Consumers are aware of their age and what is considered "appropriate" for them; based on their occupation they might tend to frequently buy different products such as business suits or uniforms; based on their lifestyle they might have different opinions and interests, as well as activities they need to shop for while based on their personality, consumers might look to express themselves (Shah, 2010). This is also why offering any style and color options to appeal to all types of people can prove to be quite beneficial for eyeglass brands. For example, assertive and powerful businessmen will look for different products than young children and marketers need to be specific on who they are selling their products to. Although there is no doubt that a difference will be made between those two diverse groups, there are also personal factors that affect two consumers that are more alike. To examine eyeglasses, two students might have different personalities, occupations and lifestyles and even though they would fall under the same age group; marketers need to satisfy both their wants by having a certain range of products. One student could have vastly different overall style to an equal counterpart. More specifically, one's personality might direct a desire for a flamboyant and big eyeglass frames, the other might look for sleek and barely noticeable pair of glasses.

Another personal factor to consider is gender. Gender identity is described as a "personal conception" and how an individual sees themselves (Ghosh, 2020). While the most common classification is either male or female, some individuals might identify with both or neither (Ghosh, 2020). This is where a specific difference between gender roles and gender identification arises: the former refers to the visible behavior, dress style and characteristics and the latter refers to personality and accepted beliefs (Ghosh, 2020). Therefore, with the desire to appeal to a bigger market, or in an attempt to present a socially acceptable image that aligns with modern-day beliefs, many eyewear companies are leaning their products towards unisex lines. In the eyewear industry, there are three distinct characteristics consumers see: frame shape, frame size and frame color (Coco Leni, 2021). In recent years, eyewear has adopted a more general, inclusive view when it comes to colors and does not separate their collections in a basic "genders are associated with colors" way. On the contrary, to satisfy this consumer concern, eyeglass companies release a variety of colors but limit the frame size and shape. This is a clear response to the evolution of consumer preferences as gender is a personal factor consumers consider before purchasing a product. Additionally, inclusivity can also stand to benefit eyeglass companies as unisex frames can indirectly boost sales as gender roles become less defined in today's society.

Finally, to evaluate psychological factors, consumers need to have the motivation to buy a product. This motivation will be driven by their personal beliefs and attitudes and also their perception of different market offers (Shah, 2010). The motivation exists to satisfy a need that can be psychological, biological, personal or social for example (Shah, 2010). In the instance of eyeglasses, a consumer is generally driven by the medical need, but their wants are satisfied through their beliefs and attitudes. Once a consumer has been given a prescription, they might decide between contact lenses and eyeglasses depending on the information they have accumulated about both products over time (Shah, 2010). They also might make a selection based on what they think and what they have remembered from advertisements; therefore, marketers need to have strong tactics in place to be memorable and address the psychological aspect their products should hold.

Nonetheless, all the factors mentioned above are internal to consumers, their thought processes and life situations (Abedi et al., 2013). As consumer behavior is a complicated process, marketers need to consider external influences as well. Firstly, they need to identify what type of consumer behavior their industry evokes and if the purchase falls under a complicated, limited or regular decision (Abedi et al., 2013). This way they can control the 4Ps of marketing strategy: product, price, place and promotion. To relate this to eyewear, marketers need to be aware of the product they have presented, how they priced it, where they are selling it and how it travelled through various distribution channels (Abedi et al., 2013). This also recognizes the level of consumer involvement, whether they have previous experience and how strong their interest is (Abedi et al., 2013). Therefore, the study of consumer behavior can be quite broad depending on the product or service in question.

Emotions are another aspect that can greatly sway consumers in the decision-making process as supported by multiple researchers (Achar et al., 2016 & Murray, 2013). They influence consumers through cognitive appraisals, regardless of whether these emotions are directly/indirectly related or unrelated to the decision at hand (Achar et al., 2016). Therefore, emotional appeals can either be enclosed in the marketing strategies or present as a customer's individual assessment of a product (Achar et al., 2016). Although consumers like to believe that their purchases are rational and deliberate, previous studies indicate that many of those decisions are emotional (Murray, 2013). The way emotions impact consumers are through positive reinforcement, memorable experiences and creating preferences (Murray, 2013). Moreover, it has been found that consumers with an undeveloped connection between the "thinking" and "emotional" parts of the brain could not make purchasing decisions as they could rationalize them but had no clear feeling about them (Damasio 1995 cited in Murray 2013). Therefore, emotions and how consumers respond to products are important aspects to consider and they can be tied to two stages: product development and marketing. In the product development phase, brands need to create unique features that consumers can respond to while in the marketing stages, marketers need to create campaigns that send a positive message. Consumers also respond to the values and ideals a business holds and promotes and emotionally relate to them (Murray, 2013). These emotions also play into loyalty, trust and long-term customer relationships (Murray, 2013). Further, emotions can tap into the relationship between the product features and the needs and wants a consumer is looking to satisfy which is where likeability is mentioned. This justifies why customers rely on well-known and established brand names even when their products are more expensive (Murray, 2013). In the eyewear industry, brands need to present a coherent value base and remain competitive with their product features in order to emotionally intrigue and bind customers.

For all industries and service sectors, it is important to understand your target audience and their preferences as they change and evolve over time and accordingly respond. Therefore, this paper will now focus on consumer preferences in the eyeglass industry and how they changed and evolved due to both internal factors (such as cultural, social, economic, etc.) and external factors (such as rise of the internet and social media).

2.2 Consumer Preferences

Traditionally eyewear buyers start their buying process by visiting an optometrist and receiving the prescription necessary for their eyes. However, as this is just the first step in the decision purchasing process, buyers consider a wide range of factors when it is time to purchase eyeglasses. According to a 2012 research in the United States, 27% of people rely on their doctor's recommendation while 19% rely on the advice given by the optician or sales representative in the optical shop (Statista, 2013). This indicates that consumers look for quality assurance, especially if it is their first purchase within the industry. Therefore, brands selling eyeglasses need to assure positive word-of-mouth marketing and integrated strategies that highlight how beneficial their products are but also have scientific and strategic presence in the industry so that doctors and opticians recommend them. Price, insurance and product features are the next factors consumers look at with 18%, 11% and 9% of survey participants having named them, respectively (Statista, 2013). This indicates that consumers also make purchasing decisions based on their abilities, in this instance personal income and preference. As brand designer name (5%) and coupon sales (2%) ranked at the bottom, it can be assumed that customers are not deeply interested in them (Statista, 2013). However, this would be a mistake as the bottom factor, concluded in 2012, having only 0.3% of participants name it, was the internet (Statista, 2013). Although these are general factors that were considered in this market, a lot has changed since then. The need for such research arises again with the rise and expansion of the internet and social media but also the evolving consumer preferences. As will be discussed later in the literature review, consumers are believed to put a lot more emphasis on brands, the internet and product features now than 10 years ago.

Eyeglasses today are primarily used for their original purpose which was to improve vision for those who need it. However, the eyeglass market has evolved into a necessity for vision improvement while fulfilling fashion needs (Fromm, 2021). Eyeglasses today are worn to complement overall fashion and consumers are choosing glasses that best achieve this. Eyeglass compositions with multi colors, eye catching designs, vintage and retro blueprints are being created to fit the creative and fashionable types thus achieving vision aid and status (Fromm, 2021). Additionally, even glasses for seniors are now created to have a sense of fashion; giant frames that dominate the face and inevitably highlight one's age are no longer produced. This is due to rising popularity of fast fashion among millennials which is encouraging eyewear manufacturers to design "affordable and attractive eyewear" (Fromm, 2021). Consumers also value price of the frame as the next most important factor when contemplating purchasing (Fromm, 2021).

As previously mentioned, there are three distinct characteristics of an eyewear product that consumers see and they are frame size, frame shape and frame color (Coco Leni, 2021). This is important to establish as these are the main product features but also the most volatile characteristics of said product. Although there are many more features and details that go into the manufacturing of eyeglasses, these 3 are the most notable to consumers and often influence how they base their decision (Coco Leni, 2021). Product development will be discussed later in the literature review but the motivation behind having a balanced product offer is crucial at this stage. Having mentioned all the factors consumers consider, it was clear that many intrinsic factors can act on consumers. It is clear at this point that the style of the frame seems to be the most convincing factor for eyeglass customers. This would apply to the frame color, although a mainly personal choice, women are more comfortable wearing black, red and dark blue frames (Coco Leni, 2021). On the contrary, men are not very open to pastel colors including baby blue or bright pink (Coco Leni, 2021). Therefore, even as a personal choice, eyewear companies need to allocate resources in the right direction so that their product features are appealing, and their inventory does not exceed capacity. For example, frame shape and size are more specific; these two can potentially be considered extrinsic factors. Conceivably obvious, frame size matters especially when segmenting the market: men's glasses need to be bigger as they, on average, have bigger features and their eyes are further apart (Coco Leni, 2021). In comparison, women's frames need to be bigger than children's so that every consumer can find a proper fit for their face regardless of their face shape, size or weight (Coco Leni, 2021). Moreover, for the frame shape, although again a personal consumer factor, there are certain guides the eyewear industry endorses. As an example, individuals with an oval face shape are commonly told they can wear any eyeglass shape while individuals with rounder faces are encouraged to search for squarer or aviator shapes (Coco Leni, 2021). By tackling these product features, eyeglass companies can assure all their consumers discover a product that they not only find visually appealing but also a comfortable fit. Factors affecting consumer behavior are therefore sometimes contingent upon the selection of glasses available and the reaction they generate in consumers.

Having analyzed the main product features and consumer preferences, in respect to what factors potentially influence their decisions, a focus will be made on millennials. As they form a large consumer group, lead the way for evolution, highlight the necessary adaptations eyeglass companies need to work towards and comprise the biggest portion of surveyed participants, the next section will target them.

2.2.1 Type of Consumer Purchasing Behavior - Millennials

Age is a personal factor necessary to consider when employing integrated marketing strategies (Shah, 2010). There are different labels for generational cohorts such as Silent (born 1928 – 1945), Boomers (born 1946 – 1964, and Generations X, Y and Z (born respectively 1965 – 1980, 1981 – 1996, 1997 –2012) (Dimock, 2019). The focus of this section are Millennials, less commonly referred to as Generation Y. The reason this notion is crucial is due to the differing views, beliefs and experiences the age or the life cycle bring (Dimock, 2019). In a research conducted by the Pew Research Center, some historically significant moments have been identified for millennials such as that they were old enough to be aware of the 9/11 terror attacks in New York or the Afghanistan wars, and that they enticed the conversation for the youth vote in the 2008 elections in the United States (2019). As United States consumers are a focal point of this research, it is necessary to create a division between how they act as consumers and which beliefs they hold in comparison to other nations. Furthermore, the lifestyles millennials have embraced have been shaped by the political, educational, ecological and economic systems that were in place as they were growing up (Dimock, 2019). Some common characteristics to describe them are frequently tech-savvy, selfish, lazy and young (Page, 2020). Although some of this can have a negative connotation, it is because millennials are tied to the recession in the United States, when they entered the job market, which gave them a slow start (Dimock, 2019). Moreover, their generation is not able to spend as much money as Baby Boomers; they have large debts and limited salaries and are keen on brick-and-mortar shops (Page, 2020). These facts are important for marketers who are deciding on how to price and place their product.

For the eyewear industry, millennials are crucial – in 2020, they accounted for 25% of the American population thus creating a large customer base (Page, 2020). Their demographics and overall attitudes must be acknowledged. For instance, millennials are known to research and test the products well, rely on peer reviews and relate to brands who seemingly have a clear and direct message that appeals to them as individuals (Page, 2020). Therefore, as they respond to a specific way of marketing, and have conclusive tastes and preferences regarding technology, the eyewear advertisements targeted to them need to be personal, detailed and affordable. The millennial consumers have pushed the pace in terms of influencing eyeglass fashion. Fashion is always favored among millennials over comfort and eyeglass companies are creating frames that are keeping up with the latest fashion trends while developing their own unique styles. Among millennials, 31% admitted they closely follow fashion trends which is a huge increase from 22% percent of the whole adult population in the United States with the same interest (Fromm, 2021). Wearable shapes that can complement many everyday outfits are what companies are attempting to create to tackle all groups of consumers (Fromm, 2021). The density of millennial opinions on fashion ultimately is driving the overall market trend of consumer purchasing behavior (Fromm, 2021).

"Warby Parker" is one brand that has, in the online sector, grasped this concept. Despite Warby Parker not being the first brand that comes to mind when speaking about online eyeglass stores, they have highly disrupted the traditional consumer purchasing behavior. They are the first brand to introduce the one-for-one business model for consumers (Fromm, 2021). In a nutshell this business model allows consumers to try on multiple styles and pairs of eyeglasses before ultimately deciding on which frame they desire. Moreover, as 40% of consumers are millennials, they are more likely to rely on e-commerce than all other eyewear consumers (Fromm, 2021). The overwhelming number of millennials who purchase online will only increase as overall online goods-purchasing increases. Competitive eyewear companies are taking note of that and making e-commerce and affordable but attractive eyeglasses a priority. This is a direct response to the evolution of preference when targeting millennials and Generation Z.

2.2.2 Evolution of Preference

To anticipate the inevitable evolution of preferences in the eyeglass industry, businesses need to constantly ask and revise the following questions adapted from the research conducted by Abedi et al. (2013):

- What do the consumers want?
- Where do they want the product?
- How do they want to acquire it?

There are two points of view that can be taken when considering the evolution of preferences and they are supply and demand. While most approaches consider only the supply side and how businesses can efficiently and effectively make their products or services available, there is a need to consider the consumer side as well (Valente, 2003). Marketing strategies and personal preferences depending on the features and qualities a product has are the main drivers of demand (Valente, 2003). In that respect, the question "what do the consumers want" comes into play. For example, to dissect the example given above, large, square and bulky eyeglasses that were fashionable in the United States in the 80s have now been replaced with smaller, more sophisticated frames. The demand for such eyeglasses has first appeared and then grew. It is extremely important for marketers and eyeglass companies to have a deep understanding of what trends are prominent and what consumers want out of an eyeglass frame. This again points to the design and shape of the frame which proves to be the most significant factor that consumers consider. Once this deep understanding is achieved, the strategies should adapt such understandings (Valente, 2003).

When considering supply, the budget of different departments is decided upon (marketing, research & development) and so is the allocation of funds for product development and improvement, based on what consumers want and where (Valente, 2003). The questions "what do consumers want" and "how do they want to acquire it" become important at this stage. The supply needs to be carefully mapped out to elaborate on supply chains and other market offers (Valente, 2003). Moreover, marketers need to establish short-term and long-term goals that their companies want to achieve through their market presence (Valente, 2003). Desired sales channels have changed thus "how do they want to acquire it" has changed primarily due to the growth of e-commerce.

Other researchers, however, have taken different approaches and highlighted how emerging retail formats also influence consumer preferences (Kiran & Jhamb, 2011). Their perception is impacted by demographic factors, the product or service in question and also the retail store type (Kiran & Jhamb, 2011). One significant factor for keeping up with eyeglass consumers is the internet. Therefore, establishing an e-commerce shop and moving away from the standard brick-and mortar models might be an effective way to meet demand. A strong reliance of technological dependence is suggested at this stage to meet the fast-paced lives of consumers and become a competitive force in the market by always anticipating what's next and perhaps even reaching the stage where you, as a business, can set market trends (Valente, 2003). For the eyewear industry, the rise and prominence of social media has been a focal point.

2.2.3 Social Media

Social media has heavily influenced many industries and their marketing strategies. For the eyewear industry it has created a huge opportunity: e-commerce of eyeglasses. Companies with a secure social media presence can control their brand image and positioning and appeal to the largest consumer group – millennials. As necessary as it is to keep up with emerging trends and establish an online shop, it is also essential to promote company values and ideals online in order to establish the brand and form relationships with potential customers (Alalwan, 2018). A main focal point for companies now should be not only the products they are providing, specifically eyeglasses, but also accurately portraying their brand vision via social media platforms. This also should come from where the brand chooses to advertise and collaborate with on social media. Eyeglass companies can collaborate with influencers in their sphere that convey and advocate for the same message and values the brand portrays. Consumers tend to heavily relate to the bigger purpose, or a company vision and social media is the perfect place to communicate them (Alalwan, 2018). Awareness of the brand and the portrayal of such can be a driver in growth for eyeglass company sales. As the most common and well-known social media communication channels are Facebook, Instagram, Twitter and the disrupting TikTok; brands are encouraged to utilize the following strategies online: e word-of-mouth marketing, customer relationship management, promotion, brand positioning and branding (Alalwan, 2018).

The main ideas of sharing information, following customers' activity, and projecting a carefully tailored image online are applicable to a wide range of business (Paek et al., 2013). However, for the eyewear industry there is also the opportunity to share photos of frames and create leads by forming a powerful online community (a following). Moreover, applications such as Instagram, that are used by a number of celebrities and influencers are a solid platform for following fashion trends and being in-step with them. For example, eyewear companies can exploit trends by quickly responding to consumer demand. In 2019, small frames were very popular whereas in 2021, bulkier frames with more coverage came back in style. Their overwhelming presence could not go unnoticed on social media platforms. The formation of a social media presence needs to consider two distinct factors: the target audience - their interests and online behavior and secondly, the social media itself – suitable and engaging forms of content and convenient posting times (Paek et al., 2013). An established social media presence would consider the following aspects: motives, content, network structure, and social roles and interactions (Peters et al., 2013).

Motives refer to the audience's response, understanding and engagement of the content posted; what are their interests and why do they engage (Peters et al., 2013). In the eyeglass industry, this aspect can be exploited to nourish current client relationships and also generate new leads by engaging with eyewear and fashion pages to grow the account. Content refers to the forms of content posted online – photos, videos, articles, case studies; their quantity and the quality (Peters et al., 2013). In eyewear terms, this would refer to how often the brands are posting and whether their content seems professional and interesting to consumers. Network structure refers to gaining credibility and authenticity online, for example by having a long-lasting account with a big following and online support which in turn increases the network and creates new connection opportunities with new audiences (Peters et al., 2013). In the eyeglass industry, this aspect can be looked at as – how to reach audiences that have not yet been directly targeted? Finally, the social roles and interactions refer to the context of the content and can be exploited to send a message in a specific time (Peters et al., 2013). For the eyeglass brands, this method can be used to seem socially aware and spread messages that the company stands by. The messages that are attempted to be spread can most productively and accurately be done so by using the emerging social media app TikTok. Brands can now create content that reaches organic audiences for little to virtually no costs.

Therefore, in conclusion, a social media presence is important for a number of factors: understanding consumer preferences, closely following and responding to changes in taste, establishing an e-commerce shop, sharing core brand values and generating leads. However, it is not the only tactic eyewear brands can and have used to keep in close contact with their target markets. Therefore, the next section of the paper will discuss product development to establish a foundation for what brands do to respond to the evolution of consumers' preferences and discuss other approaches such as adopting sustainable innovation or a vertical integrated model.

2.3 How the Eyewear Industry is Adapting

2.3.1 Product Development

The product development of eyeglasses is quite an extensive process. The process logically flows through the following steps: creation, design, prototyping, production and finishing (Coastal Blog, 2019). The creation process can last long but it is a crucial starting point for developing a product. Each of the steps listed above contribute to the value chain of eyewear creation. As discussed previously, consumer preferences are constantly changing and a range of factors is responsible for market trends; thus, the eyewear industry needs to be prepared and quickly and efficiently adapt its products and processes.

Marcolin Eyewear, a well-known brand in the international eyewear market, states that the first common goal between their company and their licensors is to combine various worlds in order to come up with cutting-edge products (Marcolin Eyewear, 2021). Eyewear is more than just eyecare needs at this point, but also a fashion statement for many. Designers within eyewear companies draw inspiration from other companies, trending styles and the fashion world. To compare how important creativity and inspiration are in designing eyeglasses, comparisons have been made linking inspiration and the "color of a sunrise, an intricate fabric or complex brushstrokes of a painting" (Coastal Blog, 2019). Designers are always looking for new ways to push the industry standard while remaining original.

Next is the design phase where designers attempt to reflect their vision into the frame that represents the brand correctly. The design phase usually includes sketches either hand drawn or digitally made of the frame shape with potential color scheme options (Coastal Blog, 2019). Designs are never immediately complete and often need constant revision and tweaking (Coastal Blog, 2019). Once designers are set on the shape and have made changes according to their preference, they then send the designs to the manufacturer. This is typically accompanied by notes on the materials to be used and specific design and color instructions (Coastal Blog, 2019). The manufacturer will then convert the designs and produce prototype frames. The materials used in frames vary from different plastic acetate to titanium metals (Coastal Blog, 2019). Different eyewear companies experiment constantly with new materials and color combinations to bring something new to the market. Many times, the designers work in tandem with multiple manufacturers to find the right acetate or titanium metals for the frame (Coastal Blog, 2019). This stage relies heavily on the designer's preference and vision for the frame as there is a vast range of materials that can be used for the frames including nickel, plastics and metals (Coastal Blog, 2019).

Manufacturers at the next stage send prototype samples back to the eyewear company for the designers and executives to review. Prototypes are usually evaluated for three distinct variables: “quality, size and the integrity of the design” (Coastal Blog, 2019). Once designs have been approved, manufacturers then start a process called “tooling” (Coastal Blog, 2019). If the designs are not approved, then designers will send back instructions for changes to be made. This can happen many times before a final design is chosen. Once the final design is decided on, the tooling phase begins so the manufacturer can produce the frame at scale for the eyewear company (Coastal Blog, 2019). Having explored the different steps in the production process, it is important to consider innovation and diversification that is modifying the eyewear industry as it helps achieve competitiveness in the market and follow consumer preferences.

2.3.2 Sustainable Production Process and Innovation

The eyewear market and its production processes are constantly evolving and innovating. Naturally, with overall innovation and digitization in communication, data processing, healthcare, inventory management and logistics, the eyewear market is pushed towards innovation as well. Digitization of all stages of the production process is recognized as the greatest innovation ever in the eyewear industry (Murmura et al., 2021). This increase in digitization in the concept, production and delivery phases has created a new standard in the production and distribution process of eyewear (Murmura et al., 2021). The constantly evolving industry and its companies have moved towards one that is heavily configured with digital technology. The digitization of the whole eyewear production process has created not only technological innovation referring to machinery or the supply chain processes, but also innovation of the product itself with ophthalmic lenses and frames (Murmura et al., 2021). Moreover, eyewear products are now concerned with the excessive use of digital devices and a great amount of innovation has been constructed to exploit that (Murmura et al., 2021).

These advancements allow companies to have more sustainable production processes and subsequently gain competitive advantage in the market. It has been found that the eyewear industry has a high predisposition to innovation due to internal factors such as corporate culture within a company and external factors such as the economy, size of the market and potential investments (Murmura et al., 2021). It is ultimately inevitable to innovate and find new production processes for longevity in well-established eyewear companies within the eyewear sector. It is a means of keeping up with competition in an extremely competitive sector. The eyewear market is dominated by giants and innovation is the only way to fill the gap (Murmura et al., 2021). Innovation can also be found in the actual product that these eyewear companies are selling (Murmura et al., 2021). To that extent, the next part of the paper will look at a market-leader, their innovation, their contemporary business model and most importantly to this paper their understanding of evolving consumer preferences.

2.4 Market Leader: Luxottica

The United States eyewear market and global market is predominately monopolized by the Luxottica Group founded in 1961. In 2018, Luxottica accounted for 73% of net retail sales in North America (Statista, 2021). This staggering number represents an established monopoly in the eyewear industry. The Luxottica Group is the largest eyewear company in the world and has acquired well-known and established brands such as Ray-Ban, Persol, and Oakley (Luxottica, 2021). The group's distribution network covers more than 150 countries across multiple continents and is parlayed with its approximated 9,200 retail stores worldwide and in the United States (Statista, 2021). Their collaboration with Pearle Vision, Lens Crafters and Sunglass Hut aids in creating a network of retail stores and proprietary brands which contribute to Luxottica's status.

Luxottica's company mission is to "protect the eyes and enhance the look of women and men in the world, creating the best possible eyewear to satisfy its clients and interpret consumer tastes and aspirations" (Luxottica, 2021). Luxottica achieves their mission and accomplishes their vision by enticing strong brands that have long-lasting relationships with loyal consumers and the upcoming brand that have an overall appeal to attract new consumers. The company has successfully identified brands that consumers not only enjoy wearing but take pride in wearing (Luxottica, 2021). Through integrated marketing strategies, they combine customer relationship management and advertising tactics that appeal to emotions and status symbols. Moreover, the Luxottica Group nurtures relationships with its existing and potential partners in order to create security and protect its brands and their image (Luxottica, 2021). Luxottica's ability to scout and support new brands drives their continued long-term growth structure in addition to identifying new market trends (Luxottica, 2021). The group also aims to increase its market share by increasing its online presence through e-commerce and thus consolidating its network of wholesalers (Luxottica, 2021).

For the purposes of this study, Luxottica has been identified as a market-leader whose business operations, product creation and development, and supply chain strategies are dominant and intricate to analyze in order to identify the industry standard. Therefore, the next portion focuses on their unique value proposition to create a basis for what is currently a prevalent business model and a benchmark for the changes in consumer preferences.

2.4.1 Unique Value Proposition

The competitive advantages and unique value propositions which have driven the growth of Luxottica, are in large part due to its vertical integration business strategy (Cuofono, 2021). The vertical integration of Luxottica, like Rome, was not built in a day. The strategy was meticulously achieved starting with the vision from its founder, Leonardo Del Vecchio. He started by conceptualizing the consumers desires and delivering a frame that satisfied those desires in entirety (Cuofono, 2021).

The proposition started in 1961, when the founder Del Vecchio created components for eyeglasses in a small shop for the optical industry in Italy. By 1970, Luxottica became a manufacturer able to produce a whole finished pair of eyeglasses and in 1974, the vertical integration began (Cuofono, 2021). Luxottica started international expansion by acquiring independent distributors. As the eyewear industry grew closer to the fashion world, Luxottica acquired Steroflex and used its resources to advance the style, design, and reform the brand image (Cuofono, 2021). At this point Del

Vecchio knew the evolving market of eyeglasses would transform to be component of fashion which helped him establish a market position earlier than competition (Cuofono, 2021). In the late 80’s Luxottica began licensing agreements with high luxury brands including but not exclusive to: Giorgio Armani, Prada, Chanel, and Bulgari.

Once the product development referring to design and engineering was decided upon, the vertical integration of manufacturing was complemented with the expansion of distribution starting with wholesale and then retail and a presence of value adding lens finishing (Cuofono, 2021). The vertical model itself starts with quality. The main goal of Luxottica like all successful companies’ main goal is to create a desired and high-quality product. The ability Luxottica has, to tap into the consumer market, has been a main driver for excellence and it starts at product development. Like all eyeglass companies the product development stage is the longest and the most taunting stage (Cuofono, 2021). Luxottica embraces this stage to its fullest and spends majority of its time designing and engineering innovative designs that set the industry trends. As it stands, Luxottica develops 1,800 new models each year and holds over 1,400 new patents annually (Cuofono, 2021).

Although present all over the world, there is one strategy Luxottica prides itself in and that is implemented in every facility that operates for the group – strict oversight of the production processes which in turn set a quality standard (Luxottica, 2021). This view and attendance in each of the processes gives the company a unique understanding of consumer trends and tastes and while the understanding of preference is why consumers choose to purchase glasses from companies within the web of Luxottica, understanding preference does not solely explain the dominant market share (Cuofono, 2021).

Once the innovative frames are manufactured, half the battle is won. Luxottica’s complex and efficient distribution networks and logistic capabilities are the most advanced in the industry (Cuofono, 2021). As they are integrated globally, Luxottica exploits a centralized manufacturing platform that it adds its wholesale and retail contacts to (Luxottica, 2021). This centralized platform tracks inventory, sales, and performance to meet market demand and efficiently distribute the glasses. The company's main distribution hubs provide direct global deliveries efficiently (Luxottica, 2021). The structure operates as "centralized facilities" that are highly automated and controlled and in some parts of the world, developed efficiently enough to allow for shipping of products directly to the customers. This reduces costs, delivery times and inventory levels (Luxottica, 2021). Distribution is broken up into three networks: wholesale distribution, retail distribution and e-commerce. This unique value proposition's success is most highlighted by the innovative factors in distribution. Most recently, the large investments into online platforms as main sales channel (Cuofono, 2021).

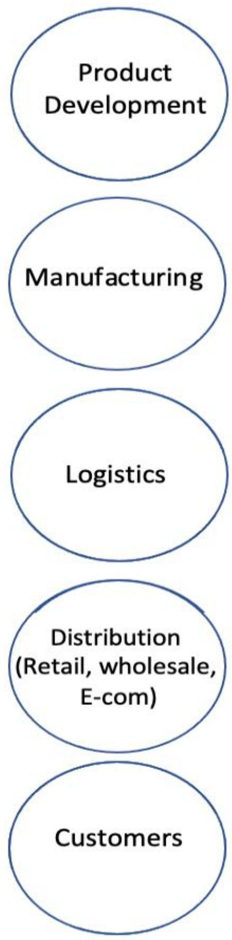

Figure 1 – Luxottica's Vertical Integration

Online sales in the eyewear market are steadily growing and Luxottica has successfully grasped this trend and capitalized on it. The projections for online revenue for the eyewear market are exponentially growing each year. By year end 2021, the eyewear market is expected to be responsible for as much as 11% of all revenue generated through global e-commerce (Pragiti, 2021). With a market volume of $31 billion USD in 2018, the United States represents the largest market, followed by Europe (Statista cited in Pragiti, 2021). These figures have been due to the increase, as stated previously, in eyewear needs and have been complimented by the overall economy trend of an increase of online goods purchasing in the United States. To fully capitalize on this increase of online eyewear purchasing Luxottica has, in the last five years, increased its investments in digital platforms of the retailers in their network (Cuofono, 2021). This includes Sunglass Hut, Oakley and most notably Ray-Ban (Cuofono, 2021). The already dominant retail stores and companies in the Luxottica network have continued to increase their sales presence in the online e-commerce sector. Figure 1 visually represents the vertical integration business strategy of Luxottica that allows for efficient integration and short response-time to changing consumer trends.

3 Research Model

Having considered the factors consumers look at before purchasing eyeglasses and having considered what market-leading companies are doing to effectively keep up with market trends and the evolution of preferences, the following research model is introduced. In an attempt to confirm that consumers are influenced by a range of factors and that their choices are constantly changing, the research model below details several factors and their relationship with consumer behavior.

Firstly, the demographic factor of gender is looked at. Secondly, the product price and point of sale are considered to assess if they affect the consumer behavior. Customer's emotions are also considered as they are pretraining factors in shaping a purchasing decision. Figure 2 below shows all these forces and how they are acting on consumers which in turn affect consumer behavior. Each hypothesis was made in response to the research questions listed. Although these research topics were first mentioned in the introduction, they have subsequently developed, thanks to the secondary research conducted, to address the most current and pressing topics the eyeglass companies are facing. They revolve around the basic factors such as brand awareness and gender and deal with more complicated factors such as development of consumer preferences and emotional roles in the purchasing process.

Hypothesis 1

RQ1: How similar is the purchase behavior of eyeglasses between males and females?

H1: There is a difference in eyeglasses purchase between the genders.

Hypothesis 2

RQ2: How strong is the relationship between annual income and eyeglass purchasing price?

H2: Annual income has a strong influence on eyeglass purchasing price.

Hypothesis 3

RQ3: How strongly does age affect eyeglass point of sale preference?

H3: Age does strongly affect customers point of sale preference.

Hypothesis 4

RQ: To what extent do eyeglass characteristics invoke emotions in eyeglass purchases?

H5: Eyeglass characteristics significantly affect emotions in the eyeglass purchasing process.

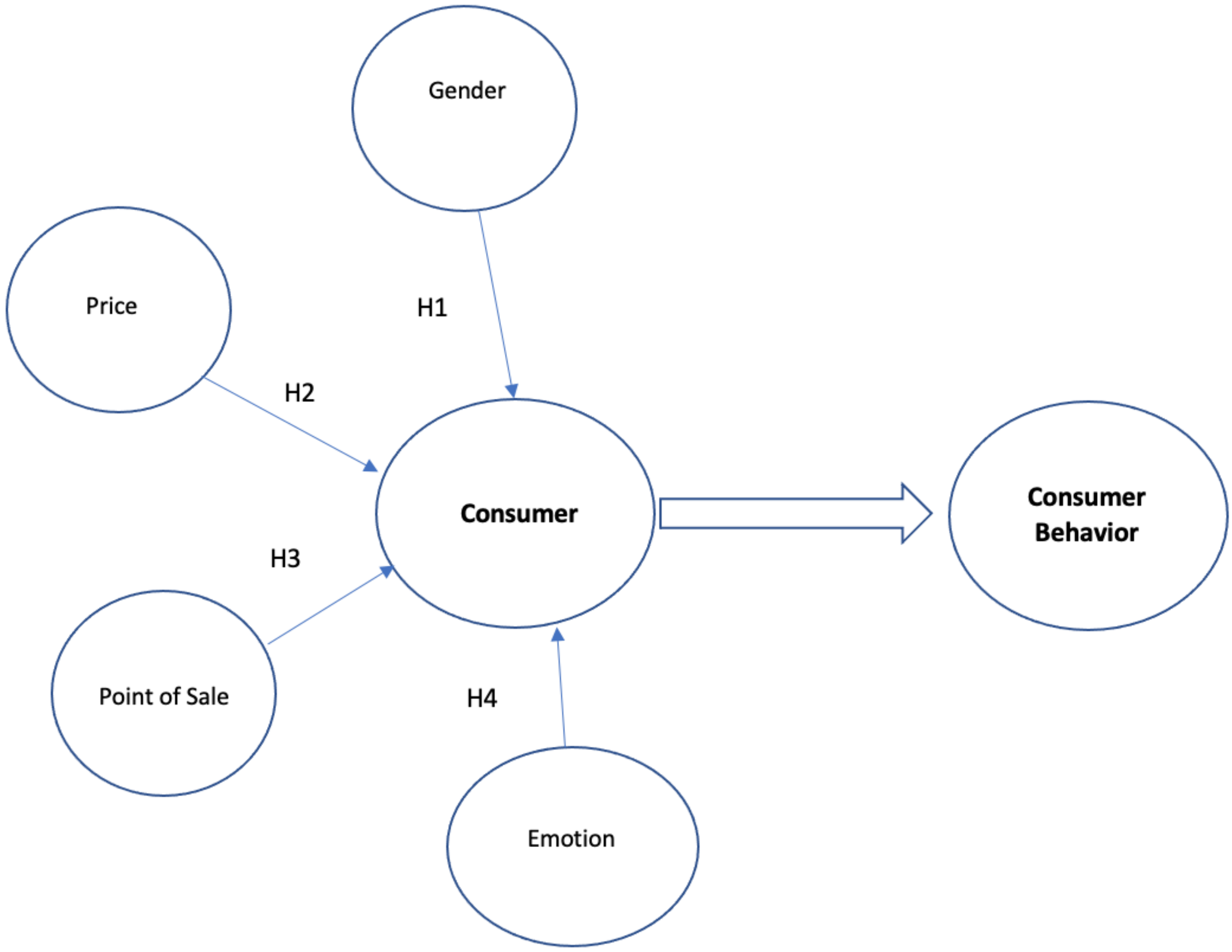

Figure 2 – Research Model

4 Methodology

Quantitative research consists of collecting and interpreting numerical data sets (Bhandari, 2020). It is used for analyzing data, exploring relationships, discovering patterns, and adapting results to general populations (Bhandari, 2020). It envelops three research approaches: descriptive, correlational, experimental, and numerous research methods for collecting data such as surveys, experiments, and questionnaires (Bhandari, 2020). Therefore, for this study, a quantitative design was chosen complemented by a survey research method. As general trends and participants' preferences were analyzed, and this study did not look at experiences or individual opinions which would make it qualitative, a quantitative approach was the best fit. Also, as the general topic dealt with widely accepted trends and overall shift in consumer behavior in the eyewear industry, patterns needed to be drawn instead of analyzed deeply.

The survey consisted of 20 questions that covered demographic factors such as gender, age and annual income but also explored their preferences as consumers in the eyeglass market. For example, questions ranged from which eyeglass brand do you currently own, how did you select that pair of eyeglasses, did you consult review-based websites, social media or the doctor/ sales representative to where you purchased your eyeglasses. These questions aimed to gain knowledge on the purchasing process and potential factors affecting them. The survey was sent out to Facebook for users within the author's personal network with the intention of spreading through the snowball effect. This makes it a convenience sample thus creating possible biases and limitations for this research study. The sample size collected was 54 participants, from which 39% males and 61% females between the ages of 20 and 57. However, this was after the data was cleaned. The data cleaning was necessary to meet the demographic needs of this study, eliminate partial responses and limit the study to United States.

Before taking the survey, all participants were informed about the purpose of this study and assured that their data would only be stored and analyzed for this research. Moreover, they were made aware that their responses would be anonymous and were therefore asked to answer truthfully and unbiasedly. By starting the survey, they consented to taking part but were still able to exit at any time if they so desired. All participants also had the opportunity to contact the researcher in case they had any questions or concerns or in case they wanted to learn more about the study itself and the results gathered. Upon collecting all the survey responses on Google Forms, the data was transferred into Microsoft Excel and RStudio where it were interpreted and tested. The following were used to answer the research questions

- Chi-squared
- Kruskal-Wallis
- Mann-Whitney
- Spearman's Correlation Rho

In the next section of the paper, results and interpretations for each hypothesis will be discussed, followed by a section that will tie all the results together in a summary.

5 Interpretation of Results

5.1 Hypothesis 1

The first hypothesis regards two groups of eyeglasses consumers, one being male and the other being female. The first hypothesis stems from the following research question: “How similar is the purchase behavior of eyeglasses between males and females?” This is an important question to ask for marketers and eyeglass brands as they should know how their target market responds to a potential new eyeglass line. With the knowledge of purchasing behavior related to gender, eyeglass companies can gain valuable insight on efficient pricing, quantities to produce and more. The alternative hypothesis is that there is a difference in eyeglass purchasing between males and females, specifically regarding preference of pricing. This is a two tailed hypothesis because no conclusion has been drawn upon as to which gender purchases more, less, at what price exactly, etc. There is however a limitation to these findings due to the inequal distribution of gender and to the way in which these respondents were found. As prior stated the respondents were 31% male and 69% female and were surveyed through a convenience sample. Therefore, this sample could not represent the whole consumer market in the United States and there were no income requirements which could have heavily affected the results. This must be regarded and pointed out when discussing these results.

There were two questions asked specifically for this hypothesis to gain proper insight on the purchasing behavior of males and females. Firstly, the gender they identify with and secondly, how much their current pair of eyeglasses cost. For the purposes of this study, only gender distinction made was between males and females. The specific questions and answer are as follows:

1. What gender do you identify with?
    - Male, Female or Other

2. How much did your current eyeglasses cost?
   - Under $49
   - $50-99
   - $100-149
   - $150-199
   - $200-249
   - $300 +

The results proved to fail to reject the hypothesis presented that there is a difference in purchasing behavior between males and females. Figure 3 is a density plot that shows the distribution of purchasing prices of both gender groups. The density plot shows there is an unequal distribution of eyeglass purchasing price. However, the most purchased range between males and females fell in the $100-149 USD range which is considered the "value" range. The unequal distribution between males and females purchasing price displayed on this density plot alone cannot warrant conclusions of the overall price preference because of the above mentioned sample limitations. This visual is used to grasp an overall macro idea of the distribution of eyeglass purchasing prices.

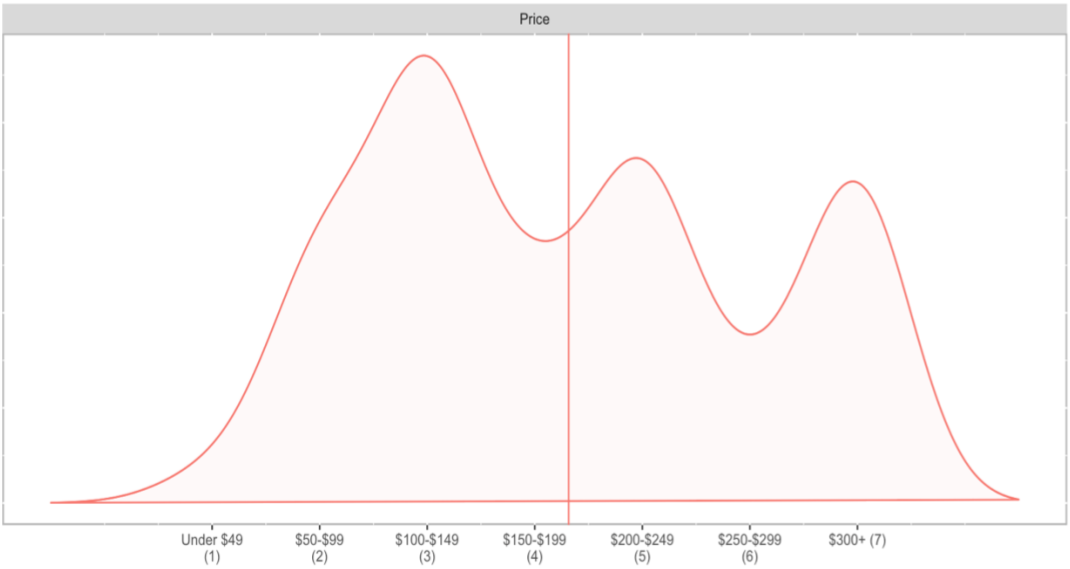

Figure 3 – H1 Analysis

In Figure 4, there is a graphical representation of the purchasing between males and females as a percentage of the total responses. This is important to visualize as there is apparently no price range that is dominant or overpurchased by one gender group. The visual representation shows, as well, that the purchasing behavior in regard to price seems to be similar. However, to conclude on the survey results, because the data is categorical a non-parametric, a Mann-Whitney test was performed and stated a P-value of 0.18. Based on this test's result it can be said that there is no difference to how men and women purchase eyeglasses based on price. Therefore, we fail to reject the null hypothesis, so there is no difference in eyeglass purchasing between male and females.

Figure 4 – H1 Visual

5.2 Hypothesis 2

The second hypothesis regards one group of consumers, which is all the respondents surveyed; however, specifically looking at how much these respondents paid for the current pair of eyeglasses they own and how much they earn annually. This hypothesis stems from the following research questions: "How strong is the relationship between annual income and eyeglass purchasing price?" This is also an important question marketers should be knowledgeable of when creating campaigns for eyeglass brands. Eyeglass brands should know which pricing categories their target consumer group are willing to pay for similar product so they can accurately price their eyeglasses for optimal sales. The hypothesis created is that annual income has a strong impact on eyeglass purchasing price. Again, this is a two tailed hypothesis as there is no hypothesized direction to the extent that annual income affects eyeglass purchasing price. The survey respondents were asked these two specific questions below to properly interpret and draw conclusions on which price range consumers most prefer for eyeglasses and how much they earn annually.

1. How much did your current eyeglasses cost?
    - Under $49
    - $50-99
    - $100-149
    - $150-199
    - $200-249
    - $300 +
2. What is your annual income?
    - $0-10,000 USD
    - $10,000-50,000 USD
    - $50,000-100,000 USD
    - $100,000-200,000 USD
    - $200,000+ USD

Figure 5 visually shows the recorded responses to the above two survey questions. There were 54 total responses of which 21 were male and 33 were female. As stated, when analyzing and drawing conclusions it is important to note the survey respondents were conducted in a convenience sample with no requirements regarding age, income, or other demographics. In the figure below the price scale noted as “7” is the $300+ price range while the income scale noted as “5” is the $200,000+ USD annual income. The highest recorded annual income respondents purchased their glasses in the highest price while the lowest recorded annual income respondents purchase in all price ranges. Therefore, it seems annual income does not play a significant role in eyeglass purchasing price.

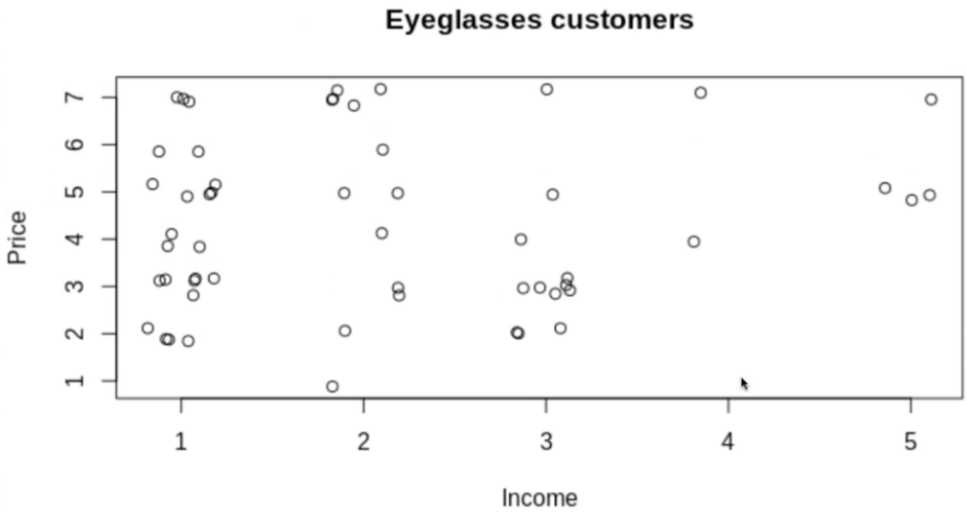

Figure 5 – H2 Analysis

This visual representation alone cannot reject or accept the hypothesis. The Spearman Correlation test yielded a P-value of 0.74 which is in line with the visual representation. This large P-value shows that there is no apparent relationship between annual income and eyeglass purchasing price. Furthermore, the Rho correlation value found was 0.045 which further confirms that no matter how much the respondents earn annually the purchasing price has no relation to it. Thus, the H0 is rejected, - annual income does not have a strong influence on eyeglass purchasing price; consumers of various annual incomes purchase in various price ranges.

5.3 Hypothesis 3

The third hypothesis is reached by asking the research question – How strongly does age affect eyeglass point of sale preference? This is a prominent topic as evolution of consumer preferences and habits was discussed in the study's literature review. The hypothesis states that consumers prefer to purchase their eyeglasses in store rather than online. Although this does not hypothesize evolution, as customers are assumed to prefer to physically feel the eyeglasses and try them on, its conclusion can shed light on how far from the traditional purchasing process consumers have come, when eyeglasses are in question. Moreover, this is a one tailed hypothesis as it states the direction of the conclusion (customers are thought to prefer in-store over an online shopping experience). It must be noted at this stage that this hypothesis was sent with specifically eyeglasses in mind, as it is both a medically prescribed and a fashionable item. The survey participants were asked the following two questions, using which, the conclusions for this hypothesis were drawn.

1. How old are you?
    - 20 – 25 years old
    - 26 – 30 years old
    - 31+ years old
2. Where did you purchase your current pair of eyeglasses?
    - Online
    - Eye Doctor (Optometrist/ Optician)
    - Chain Retailer (e.g. Pearl Vision)
    - Boutique Shop
    - Other

The distribution of point-of-sale preference is represented visually below in Figure 6. Further, for the eyewear industry, the distinction between in-store and online is not easily made as there are multiple points of sale that eyeglasses can be found at. Therefore, they had to be listed individually as buying eyeglasses in a boutique shop is different from buying them at the optometrist's office.

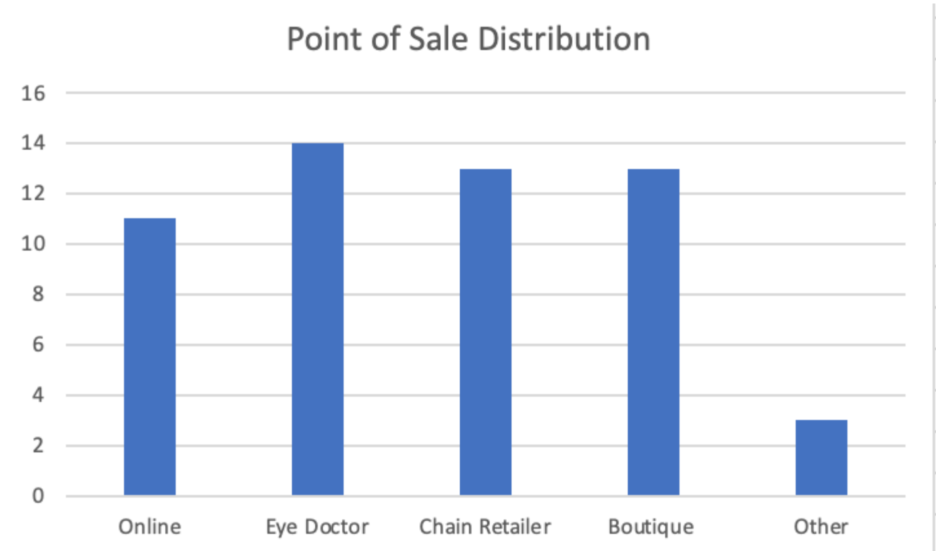

Figure 6 – Point of Sale Distribution

Notably, eye doctor, chain retailer, boutique shop and other all represent the physical, in-store experience in a brick-and-mortar facility while online is the only selection to represent e-commerce. The results for point-of-sale preference seemed evenly distributed which seems to show there is no dominant point of sale preference but testing is required. As the ages of respondents are unequally distributed and most of the participants were in the 20 – 30 age range, it was separated into more specific groups for more accurate interpretation. The age sample of distribution is shown in a histogram below.

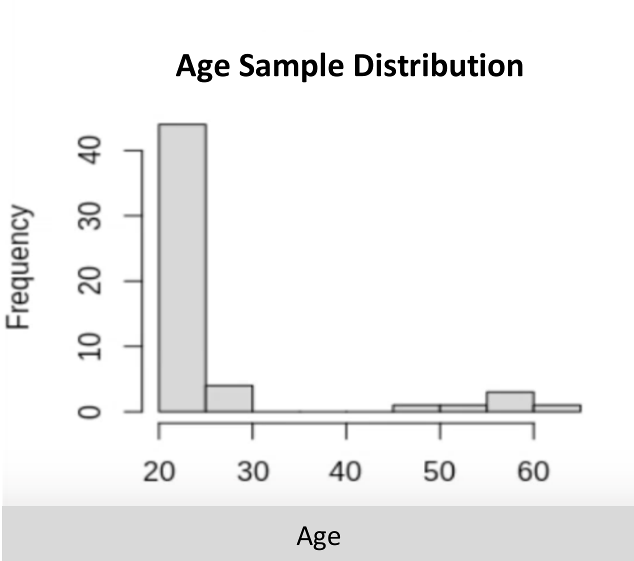

Figure 7 – Age Sample Distribution

For this hypothesis a non-parametric Kruskal-Wallis test was done on the data to assess how age groups affect the eyeglass customers point of sale preference and the test yielded a P-value of 0.5267. This high P-value shows there is no significance in age groups and point of sale preference. Again, we failed to reject H0 that age does have a significant impact on point-of-sale preference.

5.4 Hypothesis 4

The final hypothesis is based on emotion and what role customers emotions plays on purchasing eyeglasses and how the eyeglass characteristics affect such emotions. Moreover, the findings specifically tap into what about the eyeglasses strikes emotions in customers during the purchase process. The final hypothesis is as follows: "eyeglass characteristics significantly affect emotions in the eyeglass purchasing process". This hypothesis stems from not only literature found but also general understanding of consumers purchasing process. The specific research question that fueled this hypothesis is as follows: "To what extent do eyeglass characteristics invoke emotions in eyeglass purchases?" The question also looked at what specific characteristic about their current pair of eyeglasses caused them to purchase. Below are the survey questions which were used to analyze and conclude the final hypothesis. It is important to note the first question used a Likert scale answering format:

1. Was your last eyeglass purchase based on emotion (e.g. I saw it, I liked it, I bought it)?
   - Very much
   - Somewhat
   - Neutral
   - Not really
   - Not at all
2. My current eyeglasses were purchased based on what?
   - Design (color/shape)
   - Price needs
   - Quality
   - Other

The findings for this survey have been analyzed and displayed in a pie chart below. Based on the Likert scale answering format, 37% of respondents stated they purchased their eyeglasses based very much on emotions, while 35% of respondents stated that they purchased their eyeglasses on emotion. The 72% of respondents who stated emotion did play a role on eyeglass purchases therefore point to accept the final hypothesis that emotions play a significant role in the eyeglass purchasing process. More interestingly for marketers, of the 72% that responded to emotions playing a role in the purchasing process 73% of this group purchased their current pair of eyeglasses because of the eyeglasses' design (color/shape).

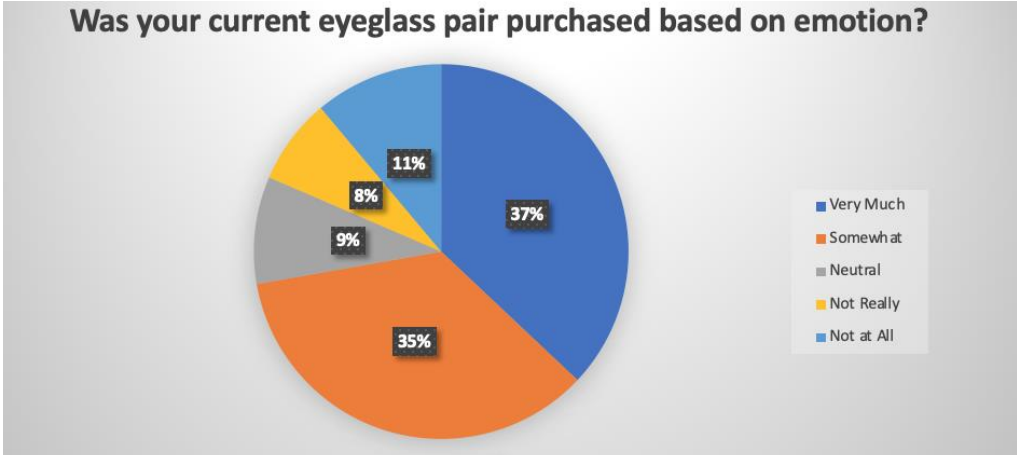

Figure 8 – H4 Analysis

Again, a Kruskal-Wallis test was carried out on emotion by eyeglass characteristics and yielded a P-value of 0.03 which means eyeglass characteristics do indeed invoke emotions in the eyeglass purchasing process. As such, H0 is rejected, eyeglass features evoke emotion in buyers. This conclusion potentially stimulates further research – perhaps into the design of eyeglass frames and their relationship with different positive and negative emotions. The next section of this study will summarize and cross reference the conclusions.

6 Summary of Results

The results collected for the four hypotheses of this research showed intriguing developments for consumers in the eyewear industry. The first two hypotheses analyzed how the gender and price affect purchasing behavior. Firstly, the results indicate that males and females spend the same on their eyeglasses. Secondly, the results also point out the fact that price is not the most prominent factor consumers consider when buying eyeglasses. Due to the colorful distribution of responses, price cannot be pinned down as a sole aspect consumers base their decisions on. This interpretation can be beneficial to product developers and marketers in the eyewear industry who are looking to create and price their products. The advice, based on these results, would be to focus more on the product features (colors, shapes, sizes) and advertising than the price. For example, with high-quality and innovative features, a higher price can be easily justified to consumers. Furthermore, although people with higher income tend to splurge more on their eyeglasses, people with lower income are also present in a wide range of prices. Therefore, price is not the most pivotal factor when purchasing eyeglasses and marketers should look at other forms of integrated marketing strategies such as placement, product, and promotion. The innovation heavily referenced in the literature review therefore makes sense as it indicates at the market need for competitive and contemporary products. According to the study and findings, brands who continuously innovate designs and styles will perform the best in current market conditions. With increased competition in the market, companies can aim to take over a bigger share of the market by having a unique value proposition at a sensible price. This also heavily lines up with the literature on the Luxottica group with their top-down value proposition proving to be the main driver in their dominance.

The third and fourth hypotheses also showed interesting results. Namely, as the eyewear industry has changed and developed in recent years, from product and technology innovation, through supply chain strategies and finally the end-user delivery, this study hypothesized that users would be in-step with those developments. Namely, hypothesis 3 was rejected as it showed that a small portion of the sample bought their eyeglasses online. Moreover, from that sample, 10/11 respondents were in the 25 – 30 age range with the last respondent aged 28. Therefore, the conclusion at this stage is the following: people do not have a clear preference where to purchase eyeglasses and age does not play a role into that preference either. This creates a diverse interpretation. Although the current market is not ready to move away from the classic purchasing experience, there is a possible indication that consumer habits will develop in that direction. These results do not deny the fact that an evolution of consumer preferences exists, but that it has not fully evolved to be open-minded to an online experience. Therefore, the need to conduct further research on this topic arises along with the need to visualize ways to adapt such an important purchase to make it more common on the online market.

At this stage, the first three hypotheses can be tied. As price turned out to be less significant than originally thought, and as the point of sale favorited was not fully conclusive, a certain conclusion can be formed. Consumers prefer to, at least for now, physically assess the product, in person and without the guidance of online reviews and they are ready to pay more if the higher price can be justified to them. Therefore, eyeglass companies should be aware of this and put more emphasis on how specialists in the eyewear industry (salespersons but also doctors) see their products. As they are the ones most frequently present at the preferred point of sale, they can provide advice or vouch for some innovative / protective features the frames might have. Therefore, although eyeglass companies should maintain their status in the field and work on positive word-of-mouth marketing, they should also keep evolving and innovating as this is appealing to the younger generations and especially millennials (as seen in this study) who are, in time, going to become an even bigger portion of the market than they are now. It is important to note that data had to be dissected and regrouped to make up for the uneven distribution of age in respondents.

Hypothesis 4 ties into this as customers prospecting a purchase tend to make decisions based on emotions that are captured by eyeglass design. The design includes the shape of the frame and the colors of the style. This notion is not surprising as customers in general do base their purchasing on emotion, however; the overwhelming majority that responded to purchasing based on emotion was not expected. Of the respondents, 72% stated emotion was present in the purchasing process which lead to acceptance of the final hypothesis. More interestingly, most of this smaller population also took most interest into their current eyeglass pair because of the design of the frame. It can be concluded that marketers and eyeglass brands should primarily design an innovative and fashionable eyeglass frame to push the customer over the “edge” to execute the end purchase. As the eyewear industry is attempting to be innovative and is continuously working on its processes and final products, this hypothesis’s findings are important in supporting the literature review. Characteristics of the eyeglass frames are pivotal as they elicit emotion and further research could show which specific characteristics evoke the most emotion and finalize the decision process. Overall, the results of the survey and hypotheses testing provide marketers and eyeglass brands an understanding of the end consumer and what they consider during the purchasing process of eyeglasses. The table below provides a summary of findings with an overview of each hypothesis tested.

Hypothesis		Reasoning
H1		Males and Females were observed to have similar purchasing behavior regarding price. After testing the P-Value of the Mann Whitney test (0.10) – there is therefore no difference in purchasing behavior regarding price between male and female respondents.
H2		There was no relationship found between annual income and eyeglass purchasing price. Spearman Correlation P-Value of 0.74 indicates no relationship. Rho correlation value of 0.045 further confirmed that no matter how much the respondents earned, the purchasing price had no relation.
H3		Age groups did not affect customers' point of sale preference. Unequal distribution of age caused for data cutting and regrouping. Kruskal-Wallis Chi-Square test was run and it yielded a P-Value of 0.5267. No significance between age groups and point of sale preference.
H4		Eyeglass frame characteristics do invoke emotion in the eyeglass purchasing process. Kruskal-Wallis test yielded a P-Value of 0.03. Further research should be done to determine which specific characteristics invoke the most emotions. However, product features seems to generally invoke strong emotions in the eyeglass purchasing process.

Table of Summary

7 Conclusion

The main hypothesis that this thesis explored and hoped to confirm, that consumer trends in the eyewear industry are evolving, can be positively determined. As in any consumer-serving industry, brands need to be innovative and competitive to stay afloat. However, there are some industry specific conclusions that can be drawn from this study. Firstly, it seems there is no clear difference in purchasing behavior between female identified and male identified consumers. As surveyed, higher income groups tend to purchase in the higher price range, while lower income groups responded more evenly across all price categories. As eyeglasses are medically prescribed, even individuals with lower annual income are prepared to buy more expensive frames. However, price as an independent factor was deemed not as pertinent as price did not seem to have a significant influence. Based on the survey responses, there was an even distribution of people purchasing in the “value” category price range as well as the expensive and inexpensive categories. Therefore, the responses point to price not playing a significant role in purchasing eyeglasses while the point of sale does. In-person sales seemed more favorable, based on this sample, which was conflicting with the literature found, that online eyeglass sales are becoming increasingly popular. However, once tested, it was concluded that point of sale was not as significant to consumers. Although not necessarily true for this sample, there has been a development when compared to consumer trends from 2012 as some participants indicated they have or would buy online. Finally, emotions play a significant role in eyeglass purchasing. The overwhelming majority of respondents stated there was emotion either present or very present in the process. Moreover, it frequently had a lot to do with enticing product features.

With a clear line of development regarding the responses collected, the literature review can be referenced as a focal point that led the study by enclosing all the relevant and prominent subtopics in the eyeglass market. By considering consumer preferences and factors affecting consumer behavior, the hypotheses were formed and by considering the current leading processes and companies, a deeper understanding was established. This foundation in turn enabled the data collection and interpretation by featuring a survey to get a better understanding of the factors that lead to the eyeglass customers' end purchase.

Certain limitations to the study must be highlighted: the survey respondents were found through convenience sampling followed by a snowball effect. The survey was posted on the author's personal Facebook page which created a bias - not only geographically but also demographically. The survey respondents were clustered in the Northeast region of the United States and were aged between 18-55. However, the majority of respondents were aged between 20-30. It is also important to note that there was not an equal distribution of males and females in this study and that the sample size collected was small. Considering all these limitations, all the conclusions reached should be taken with reservation despite proper rhetoric. Conclusions are made based on the results found and although they can provide a general insight into consumer habits and preferences, they cannot represent the entire population of the United States or provide company nor situation-specific leads. Therefore, future marketers or eyewear companies shall use this paper as a basis for further studies on larger scales.

This thesis study serves as a benchmark for future eyeglass companies and additionally, as a working guide for current eyeglass companies and marketers to garner market and consumer trends that can increase their business influence and sales. This thesis has highlighted the eyeglass market in its current state, projected overall market growth, factors affecting consumer purchasing, market leader's value preposition and the future trends within the industry (e.g social media impact). The findings of this study back up much researched and analyzed literature; however, latest trends were found that contradict past sources and even potentially predict customer behavior for the future. In conclusion, the eyewear industry presents a potential opportunity for marketers to exploit – with a large and steady market that will only grow past the 8% annual increase in the future, it is essential to establish consumer preferences and shape product, marketing, and company visions accordingly.

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