



# **Impact of Online Purchasing of Prescription Eyewear on Customer Satisfaction**

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A dissertation submitted in partial fulfilment for the award of  
MSc in Entrepreneurship

Submitted to the National College of Ireland, August 2018.

## **Submission of Thesis and Dissertation**

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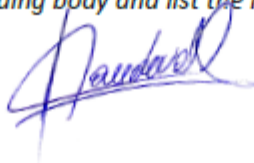
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## AI Acknowledgement Supplement

### Dissertation

### Impact of Online Purchasing of Prescription Eyewear on Customer Satisfaction

Your Number	Name/StudentCourse	Date
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This section is a supplement to the main assignment, to be used if AI was used in any capacity in the creation of your assignment; if you have queries about how to do this, please contact your lecturer. For an example of how to fill these sections out, please click [here](#).

### AI Acknowledgment

This section acknowledges the AI tools that were utilized in the process of completing this assignment.

Tool Name	Brief Description	Link to tool
Grammarly	To enhance and correct grammar and spelling	<a href="https://app.grammarly.com/">https://app.grammarly.com/</a>
Chat GTP	To translate interviews made originally in Spanish and doublechecking accurate referentiation	<a href="https://chat.openai.com/">https://chat.openai.com/</a>

### Description of AI Usage

This section provides a more detailed description of how the AI tools were used in the assignment. It includes information about the prompts given to the AI tool, the responses received, and how these responses were utilized or modified in the assignment. **One table should be used for each tool used.**

Grammarly	
Used to help enhance and correct grammar during the writing of the assignment	
There is no prompt	The app highlights misspellings or grammar mistakes offering a correct alternative.

Chat GTP	
<b>It was asked to translate questions and some answers for interviews in Spanish. Its results were checked by the researched before being introduced in the research</b>	
Please, translate the following interview from English to Spanish: Personal details: 1. How old are you?...	Sure, here is the translation of the interview into Spanish: Datos personales: ¿Cuántos años tienes?...

Chat GTP	
<b>It was also asked to doublecheck if list of references was well written</b>	
Please, check is this list of reference follows correctly Harvard style of referencing  Aliyu, A.A., Singhry...	Here is the corrected list of references in Harvard style:  Aliyu, A.A., Singhr...

## Evidence of AI Usage

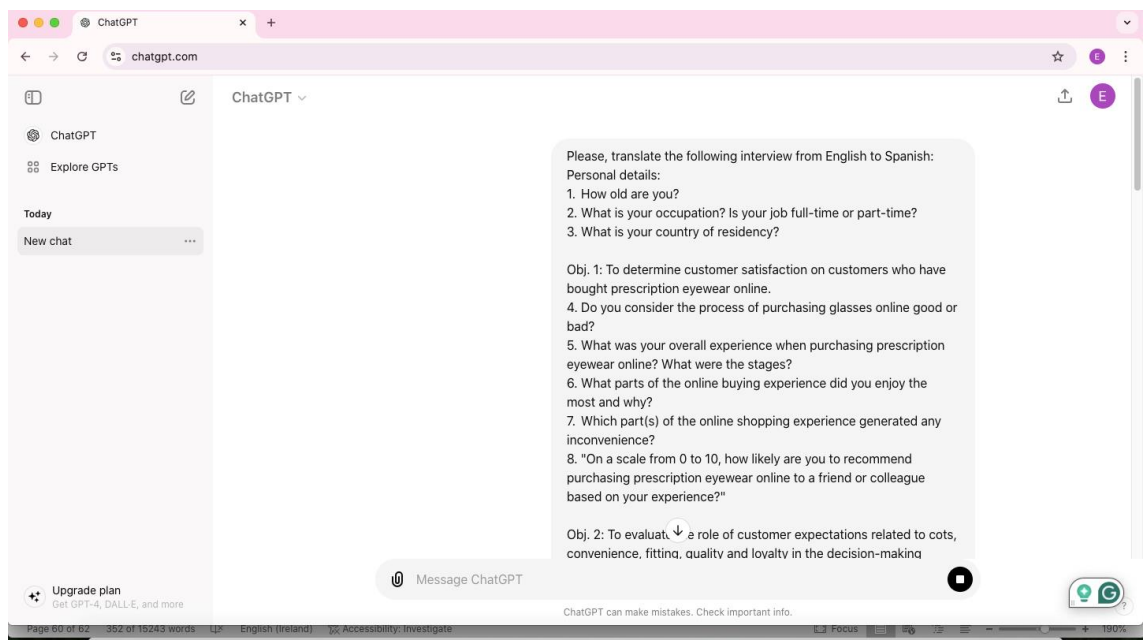
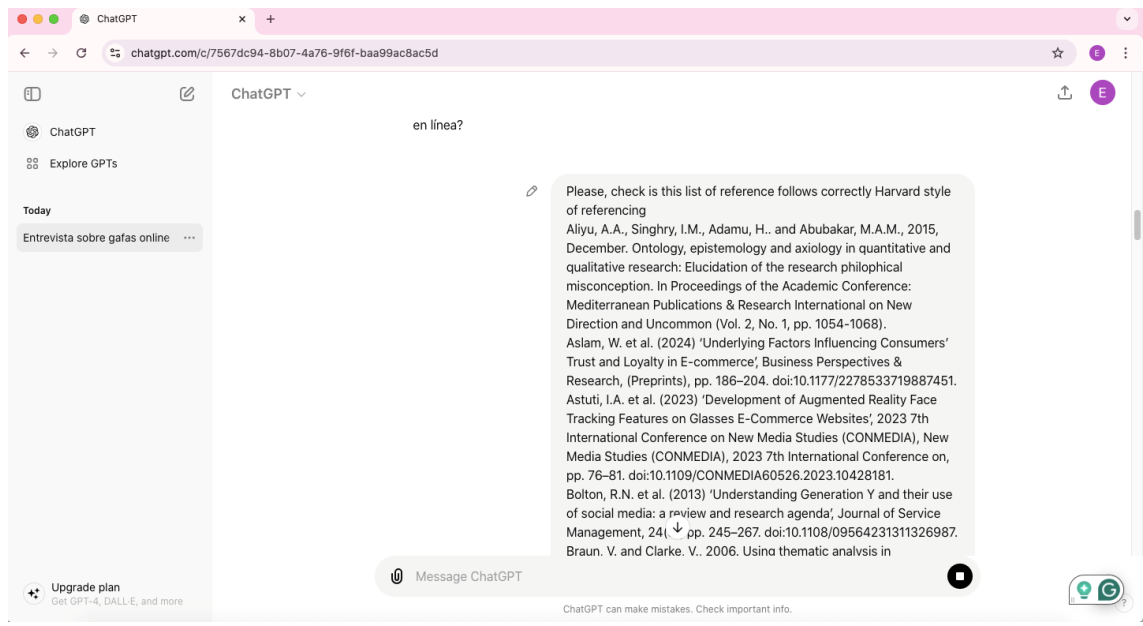
Evidence of Grammarly usage:

service and improve companies performance.

### 1.3 Academic Justification

According to Hosaini et al. (2021), a **students** population has a refractive error prevalence of 44.5%, with being myopic with the biggest frequency. This is an important figure according to academic studies, poor vision causes significant i... life of those who live with it such as headaches or strained eyes, limitations to opt for higher quality jobs, or even in extreme cases, dependence to others in ordinary tasks like dressing, preparing food or doing shopping (Horowitz, 2004; Hosaini et al, 2021). Also, Signes-Soler et al. (2024) indicate that it is expected that refraction error prevalence will rise significantly by 2050, which is warming, considering that in 2004 blindness due to

## Evidence of ChatGPT usage:



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# Chapter 1: Introduction

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## 1.1 Background to the Study

### 1.1.1 Customer Satisfaction

Customer satisfaction (CS) has become in the last decades one important pillar in evaluating the performance of an industry, company or brand. In general terms, this parameter can be resumed as the difference between what customers expect from a product or service and their experience in reality once they are purchased (Sulistyaningsih et. al, 2024). If expectations are not fulfilled by the experience, customer satisfaction is negative, although if expectations are fulfilled or exceeded by experience, customer satisfaction is positive and will bring benefits to organisations such as loyalty or repurchase intention.

Different factors can influence customer satisfaction. For instance, previous experiences lived by themselves or others, prices or quality are commonly mentioned in relation to the product itself, but some elements come from service and experience such as appropriate delivery, compliance with deadlines, branding, packaging or small traits such as a cup of coffee when a client waits for an appointment.

To evaluate and quantify customer satisfaction, there are models aiming to measure this subjective parameter, which were created in different contexts, but most of them are very accurate and accepted worldwide in these days, after years of experience supporting their conclusions. Some of them are SERVQUAL, American Customer Service Index, Net Promoter Score and E-SERVQUAL; which will be explained in Chapter 2.

### 1.1.2 Electronic Commerce

Electronic Commerce or e-commerce can be defined as all actions involved in the selling or buying of products and services online (Chaffey, 2015). This is a relatively

new phenomenon that started in the 1990s, after the internet reached the general public and the emerge of online retailers such as Amazon and eBay.

Raises and falls characterised the first decades of companies online, including the dot-com bubble which shaped a new view of this sector, being more formal with realistic business strategies and focused on financial solvency, while they use all competitive advantage that offers the online marketplace to become in an important business force nowadays.

E-commerce boosted after the COVID pandemic, and this is due to its features. One of the most important is convenience, which means e-commerce facilitates the purchase process allowing access to a wider variety of goods or services, in any place in the world. Another characteristic is lower prices as a result of lower expenses in physical stores and personnel, which usually are passed out to final customers.

On the side of disadvantages, usually mentioned issues related to human contact or services like expert advice in case it were necessary, impossibility to touch or see products before buying them, or a slower answer in case of post-sale problems or guarantees.

All these elements configure a different dynamic compared with traditional retail, resulting in different customer behaviour, and challenges which demand innovative solutions for a market that in a certain way, follows its own rules.

### **1.1.3 Eyewear Industry**

The scope of the eyewear industry is not absolute, because depending on the author it could consider wider or narrower limits (Sicari, Rizzardi and Cohen-Porisini, 2020). Following those authors, in this paper, the eyewear industry will be considered as the design, production and sale of frames and glasses for correct or protect vision.

As medical devices, prescription grasses are commonly a highly regulated industry because all concerns in case their confection or adaptation were inappropriate. These

regulations have helped to ensure people's eye health, however, limited innovation and new sales channel development to increase the economic performance of this industry (Rivero Gutiérrez and Samino García, 2020)).

The eyewear industry is relatively new in e-commerce and is at this moment in the early adapter stage. Nevertheless, during the last few years, this channel has been raising its sales and representing a higher influence in the total sales of companies, contributing to the technological evolution of devices and apps, which allows for example fitting frames online or taking some of the measurements needed to order glasses (Astuti et al. 2024).

According to Sivak, Spafford and Irving, (2020) the main reasons that encourage customers to buy prescription eyewear online are the cost and convenience, while the ones that cause reluctance are fears related to frame fitting, trust in the quality of the product and ethical issues related to loyalty to previous opticians.

## **1.2 Gaps in the Literature**

Academic literature related to e-commerce in the eyewear industry is limited, and even more, if it is tried to find peer-reviewed papers. The available research is focused on topics such as reasons that allure or repel future customers to purchase online (Sivak, Spafford and Irving, 2020; Karlovic, 2020), new technologies that make this process easier for the buyer (Astuti, 2023; Tian and Ball, 2023) or revenue and participation trends (EssilorLuxottica, 2023).

### **1.2.1 Link Between Customer Satisfaction and the Eyewear Industry**

As it was said, customer satisfaction in general terms gives insights into the health of the organisation. However, in the eyewear industry, it has further implications than the commercial ones.

In the case of glasses, if the product does not fulfil customer needs, it can be translated to a detriment to their eye health and everybody participating in the dispensing, from

the optometrist in the eye exam to the salesperson in the optical store, must be aware of that.

For this reason, issues such as inappropriate fitting, mistakes in prescription on the lenses and their material, or wrong measurements need to be avoided as much it is possible (Rivero Gutiérrez and Samino García, 2020) and for this reason, it is important to study the customer satisfaction in this group (Sivak, Spafford and Irving, 2020).

### **1.2.2 Link Between the Eyewear Industry and E-commerce**

As it was previously said, e-commerce in the eyewear industry is new and its adoption has been a slow process due to factors like high regulations, customer concerns about quality or lack of technologies to move this business to the online market. For these reasons, it is important to know how is the satisfaction of the early adopters who have tried this channel, in order to develop better sales strategies, offer a higher level of service and improve companies performance.

## **1.3 Academic Justification**

According to Hosaini et al. (2021), a students population has a refractive error prevalence of 44.5%, with being myopia the ocular condition with the biggest frequency. This is an important figure to consider because according to academic studies, poor vision causes significant issues in the quality of life of those who live with it such as headaches or strained eyes, limitations to opt for higher quality jobs, or even in extreme cases, dependence to others in ordinary tasks like dressing, preparing food or doing shopping (Horowitz, 2004; Hosaini et al, 2021). Also, Signes-Soler et al. (2024) indicate that it is expected that refraction error prevalence will rise significantly by 2050, which is warming, considering that in 2004 blindness due to uncorrected refractive error already affected over 8 million people, and 153 million people were sight impaired in 2008.

On the other hand, positive customer satisfaction apart that shows company performance can be expressed in higher revenues and increased company value (Fornell, Mithas, Morgeson and Krishnan, 2006). Sulistyaningsih et al. (2024) explain that this is possible because CS improves customer retention, appeals to new buyers, and increases repurchase intention and word of mouth.

Thus, because of the public health consequences of prescription eyewear use, the commercial implications of CS for companies, and the business opportunity that means the increase of prevalence of refractive errors in the future, in addition to the wide range of possibilities and also possible issues that e-commerce brings to the sector, it is necessary to have antecedents about customer satisfaction on customers who have bought prescription eyewear online.

## **1.4 Research Aims**

This study aims to evaluate customer satisfaction from people who have bought prescription eyewear online. For this, the author looks for insights related to the general customer satisfaction in the sample, understanding the purchasing process experience, fears and expectations before buying, and opinions about the product and eventual issues in the post-sales stage.

### **1.4.1 Objectives**

For this purpose, these are the objectives of this research:

1. To determine customer satisfaction with customers who have bought prescription eyewear online.
2. To evaluate the role of customer expectations related to costs, convenience, fitting, quality and loyalty in the decision-making process to purchase prescription eyewear online.
3. To assess the role of quality and perceived product value in customer satisfaction.
4. To assess possible issues and repurchase intention between customers who have bought prescription eyewear online.

## **1.5 Research Questions**

This research question derives from the author's curiosity for investigating experiences of customer satisfaction concerning purchasing prescription eyewear online. As a person having vast experience in clinical and commercial areas in the eyewear sector, the researcher is intrigued to get a view on how the emergence of e-commerce as a prominent stakeholder in this industry. The research aims to explore the impact of online purchasing of prescription eyewear on customer satisfaction. To this end, the author analysed key research in the area, resulting in the following questions.

1. What is customer satisfaction from customers who have bought prescription eyewear online?
2. What are the main reasons that pushed customers to purchase prescription eyewear online?
3. What are the consequences related to customer satisfaction of buying prescription eyewear online?
4. What are the reasons that encourage or discourage customers from repurchasing or recommending to family and friends to buy prescription eyewear online?

## **1.6 Methods and Scope**

According to Sanders (2023), two different approaches can be selected to develop a research. One of them is Quantitative Research which is ideal when it is necessary to confirm or reject theories, there is plenty of information related to a specific topic. This type of study is characterised by large samples and aims to obtain general conclusions to be extrapolated to the rest of the population.

The qualitative approach explores complex phenomena by examining them through in-depth analysis of non-numerical design data. Subjective experiences are drawn out, resulting in a captured perspective on each participant's experience. Qualitative research uses common methods such as interviews, focus groups and observations

which makes it a good method to discover hidden motivations or patterns within the particular social context although in their more complex form, they serve only minor descriptive goals.

The scope of this research is to analyse customer satisfaction among subjects interviewed, who have bought almost one-time prescription spectacles using online channels. In this work, were not considered buyers of contact lenses or non-prescription sunglasses.

Also, it is not one of this research aims to evaluate the individual performance of different retailers, for this reason during the chapter of findings, discussion and conclusion, their names will be omitted, and replaced for a code such as “*T\*\*\**” to maintain the option of comparison in different parts of the text.

## **1.7 Dissertation Structure**

### **1.7.1 Chapter 1: Introduction**

In this chapter, it is possible to find a brief general view of the main content of this paper such as motivations for researching this topic, general insights from literature review, methodological structure and features.

### **1.7.2Chapter 2: Literature Review**

The literature review includes important information available which is related to the topic and is necessary to understand the findings, discussion and conclusion. In this research, there are three major topics: customer satisfaction, e-commerce and the eyewear industry.

### **1.7.3 Chapter 3: Research Method**

In chapter three there is an analysis of different methodologies, and a discussion between them to choose what options are more suitable for this research. Topics such as philosophy, research approaches, research strategies, sampling and data analysis are touched in this chapter.



#### **1.7.4 Chapter 4: Findings and Discussion**

Here there are exposed the results of this investigation. The information is presented according to each objective, and every objective is broken into main topics to present relevant findings. All of them are supported by quotations from interviews.

This chapter also depicts an analysis of findings and contrasts to the literature aiming to find coincidences and differences between them, and reasons that explain those phenomena.

#### **1.7.5 Chapter 5: Conclusions**

In this chapter, the reader finds the main insights and new knowledge from this research.

## Chapter 2: Literature Review

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### 2.1 Introduction to the Chapter

In the following chapter, it is possible to find a literature review to have all the antecedents needed to analyse and understand this research.

In the first section, the main topic is customer satisfaction, where this concept is going to be developed according to the views of different authors, establishing the concept of the gap, how the difference between customer expectations and customer perceptions about the product play a crucial role in the final customer satisfaction, and four different models, SERVQUAL, American Customer Satisfaction Index, Net Promoter Score and E-SERVQUAL will be explained and evaluated.

After, it is necessary to talk about the concept of Electronic Commerce, its history, main features and comparison with brick-and-mortar businesses, the customer behaviour in this marketplace, and future challenges and solutions for this topic.

Finally, all this information will be applied when the prescription eyewear is evaluated. Touching topics such as regulation and purchase process in traditional channels to understand the mindset of this industry. After that, specific characteristics of the eyewear online market are explained to finish with an evaluation of customers' views about online alternatives and what are the reasons that encourage or reject the purchases of prescription glasses on the Internet.

### 2.2 Customer Satisfaction

The customer experience depends on various factors, and it changes between human groups and among individuals. According to Sulistyaningsih et. al. (2024), customer satisfaction is the relation between the expectation of the customer and their real experience with the product or service. When the customer experience is superior to their expectations, customer satisfaction is considered positive, when both criteria are in the same level customer satisfaction is neutral, and if the experience is less gratifying than it was expected, the customer satisfaction is lower.

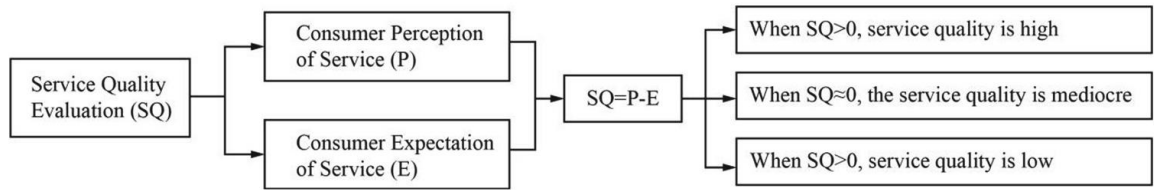
Nowadays, customer satisfaction is an important parameter to be evaluated, because it is directly related to factors that influence in company's achievements such as performance improvement, customer retention and new customer attraction (Sulistyaningsih et. al, 2024). Hamza (2017) says that customer satisfaction engages re-patronage intention, loyalty to the firm, and word of mouth. Thus, customer satisfaction can be considered an economic asset, which addresses increasing and accelerating cashflow, reducing risks, and increasing company value (Fornell, Mithas, Morgeson and Krishnan, 2006)

On the other hand, different people groups seek different needs when they are customers (Fornell et. al, 2006). Generational differences are based on common experiences and milestones lived by that group in a specific moment of their lifetime. These events are expressed, also, in customer behaviour and what they expect in their user experience (Bolton et. al. 2013). For instance, William (2011) explained that baby boomers and Gen X are more interested in the quality and convenience of the product when they buy something, while millennials and Gen Z are focused on digital tools, which are more convenient and natural to use for them, and company values such as sustainability and respect to workers' rights (Priporas, Stylos and Fotiadis, 2017).

### **2.2.1 SERVQUAL Model**

The SERVQUAL model (SQ) is an innovative framework that evaluates service quality, measuring the gap between customers' expectations and their perceptions about the product or service received (Shi and Shang, 2020). This instrument consists of 22 items grouped in five dimensions proposed by Parasuraman, Zeithaml and Berry in 1988, with the intention of being used in a wide range of businesses (Parasuraman, Zeithaml and Berry, 1988).

This model has been applied successfully to a huge variety of organizations, such as government departments, hospitals, the hospitality industry and retail, in part, due to the global concept of the "gap" shown in Figure 1 (Shi and Shang, 2020).



**Figure 1.** Process to assess the Service Quality (Shi and Shang, 2020).

The following five dimensions (tangibles, reliability, responsiveness, assurance and empathy) give this model a delimited framework to obtain useful information. At the same time, it is possible to understand the complex nature of service quality (Bustamante et. al. 2020).

- **Tangibles:** This refers to the physical appearance of the service infrastructure, equipment, staff, and communication materials. This dimension assesses how the aesthetics and image of facilities influence customers' perceptions of quality and expectations. For customers, an attractive environment and clean premises give them a notion of professionalism.
- **Reliability:** This dimension addresses the capacity of the firm to do the service reliably and accurately. It is vital because it shows how much customers can trust companies that the contracted service will be delivered appropriately. For these reasons, this is one of the most important points in customer satisfaction.
- **Responsiveness:** This point is about how members of companies (especially employees) are willing to provide the service appropriately. This involves different behaviours such as punctuality, respect for deadlines, the capacity to face problems, and being prepared to answer queries. This dimension is very important in dynamic environments where a fast service is expected and it can be urgent.

- **Assurance:** Refers to the knowledge and kindness of the staff members. Also, it includes the perception of trust and safety coming from the company's customers. This dimension is bound to the personnel having enough skill to perform their tasks and their ability for assertive and clear communication, which leads to confidence from customers.
- **Empathy:** It involves customised service and caring for customer needs. Here are included all special requirements like diet, extra support or technical advice, and the understanding of them from the firm, to fulfil clients' demands. Empathy can differentiate an organization from its competitors in very competitive marketplaces, particularly in highly standardised services.

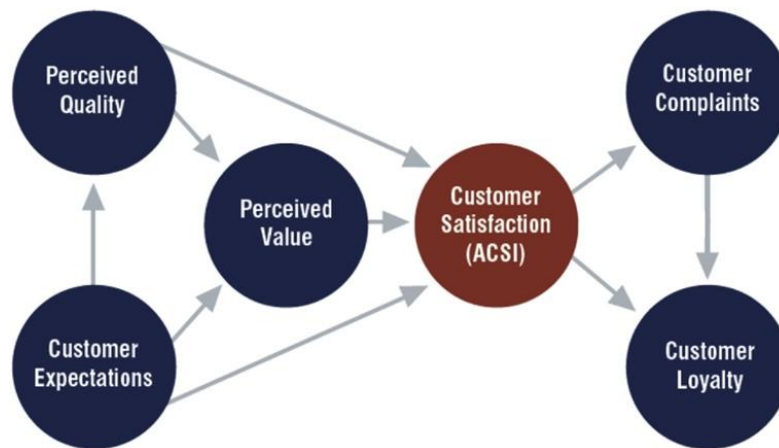
For years, the SERVQUAL model has been the target of approval and criticism (Kodithuwakku and Weerasekera, 2023). Its detractors state doubts about the universality of the system and whether the five dimensions are enough for a full understanding of the complexity of customer service (Buttle, 1996). Additionally, Buttle (1996) also considers the misunderstood of the concept of the gap can generate mistakes in the interpretation of results.

However, despite the detractions, the SERVQUAL model has continued increasing its presence (Kodithuwakku and Weerasekera, 2023). The model has been used in many academic studies which uphold its validity, and in public and private organisations to assess their performance (Ladhari, 2009).

### **2.2.2 American Customer Satisfaction Index (ACSI)**

In 1996, Claes Fornell, a professor at the University of Michigan, and his team proposed a new model to evaluate more accurately customer satisfaction in the United States of America, the American Customer Satisfaction Index (ACSI) (Garcia, De Paula and Santos, 2006). He stated that the economy has been changing and traditional measurements such as quality control or productivity are not enough to analyse companies' position in the marketplace (Fornell et al. 1996).

ACSI is a model that helps companies evaluate and enhance their performance, collecting data from over 400 companies throughout 50 industries in the United States (Forrest et al. 2023). The framework is based on three antecedent factors: perceived quality, perceived value, and customer expectations, which interact between them and result in three outcomes: customer satisfaction, customer complaints and customer loyalty (Fornell et al. 1996). The relationship between all of them is outlined in Figure 2.



**Figure 2.** The ACSI model by Fornell et. al in 1996 (Forrest, 2023)

According to Melnic (2016), it is possible to define all these items as follows:

- **Perceived quality:** It is the measurement of the value a customer gives to goods or services consumed. It is intuitive and fundamental, based on customization to meet personal customer's needs, and reliability, related to the frequency that companies fail to deliver products or services offered correctly and its severity. This indicator has a positive relationship with perceived value and customer satisfaction.
- **Perceived value:** This determinant measures the quality of the product compared with the price paid, or in simple words, the value for money. Adding price information, it is possible to compare between different companies offering similar products. It is directly influenced by perceived quality and customer expectations.

- **Customer expectations:** This component is related to prior consumption experience. It is strongly addressed by advertisement and word of mouth of a good or service, building a forecast about the quality that the purchase will have in the future. It impacts the previous determinants and directly affects overall customer satisfaction.
- **Customer satisfaction:** It is the overall result of the model, expressing whether the consumer is pleased with the obtained product. This indicator is the consequence of the mix between customer expectations, perceived value and perceived quality. Additionally, customer satisfaction influences customer complaints and customer loyalty.
- **Customer complaints:** Refers to the percentage of customers that have complained directly to the organisation about the goods or services purchased. This determinant has a negative relationship with customer satisfaction and customer loyalty.
- **Customer loyalty:** This is a neuralgic determinant in the model because customer loyalty is translated on repurchase intention and tolerance in case of price rise, furthermore, it encourages a major word of mouth to attract new clients. All these actions can address to increase profits in the company.

The American Customer Satisfaction Index is an excellent tool to be used as a benchmark of a company's position in its marketplace and can deliver a good overview of the economic environment because it reaches a large number of companies in different industries (Fornell et al. 1996). However, it is necessary to be cautious about the limitations of the model, especially because ACSI was developed thinking on the American customer, and it is a very quantitative measurement, thus, it is possible that more complex situations could not be assessed (Fornell et al. 1996).

### 2.2.3 Net Promoter Score (NPS)

The Net Promoter (NPS) Score was developed by Fred Reichheld in 2003. It is a simple measurement of customer loyalty which intended to simplify the complicated nature of customer satisfaction into a simple, single and predictive index, connecting consumer feelings with company growth.

This method is attractive because allows correlations about customer perceptions, leading to new strategies for organisations that can be game-changing and be turned into revenue expansion. The method of this model is simple, customers are asked to express on a scale from 0 to 10 how likely they are to recommend the company (or brand) to friends or relatives. According to their response, customers are classified into one of three groups:

- **Promoters:** Who rates the company between 9 and 10. They are satisfied and enthusiastic in their repurchase intention and recommend the company to new potential customers, helping in its growth.
- **Passives:** Their score is 7 or 8. They are satisfied with the product or company, but they are not enthusiasts. They may remain as customers, but their lack of loyalty makes them turn easily to competitor companies.
- **Detractors:** They score between 0 to 6, being dissatisfied with their purchase. This group can affect negatively the growth of the company through their negative feedback, negative word of mouth and damaging the reputation of the business.

With the segmentation that NPS provides, companies can tailor their marketing efforts and customer service to specific groups. It allows you to gain concentrated insights into why promoters are loyal and advocates, with consideration of the issues that upset them (which may also be things that would drive away detractors). In the same sense,



targeting passives to promoters offers a strategic opportunity to gain loyalty that is not fully achieved.

Critics point the model does not include why customers provide the ratings and what emotional triggers are behind those decisions, sometimes leading to major latencies in incoming business insights. The idea that every promoter is equally great and every detractor is equally harmful can disregard what is likely to be a very diversified set of relationships that customers have with your business.

Some critics also argue that NPS is not as predictive as it might seem, despite its relative ease of implementation and intuitive understanding by businesses. While the relationship between NPS scores and real business growth has been challenged in research, suggesting that companies should supplement their use with a range of additional indicators to better capture customer satisfaction and thus financial performance accurately.

#### **2.2.4 E-SERVQUAL**

The E-SERVQUAL model is an extended version of the original SERVQUAL and is a popular complementary tool to measure e-service quality. Proposed by Parasuraman, Zeithaml and Malhotra in 2005, this model aims to evaluate the digital service quality, which is specially created for electronic commerce, as well called e-commerce. E-SERVQUAL is a method to measure how well online services are provided in the dimensions evaluated, thus, companies can improve their understanding, overall performance and effectiveness in their online channels.

The need to adapt the traditional SERVQUAL model arises from the need to deal with new characteristic problems surged with electronic commerce. The conventional SERVQUAL asses its five dimensions (tangibles, reliability, responsiveness, assurance and empathy). On the other hand, E-SERVQUAL is designed to consider elements such as website design, waiting time for deliveries or system reliability, which become crucial determinants in the online marketplace and bring four updated dimensions:

- **Efficiency:** It refers to how quickly and easily customers can move around the website to find what they need and order their products.
- **Fulfilment:** The percentage of times the website holds to its promise about when an order will be delivered, and whether or not the purchased products are in stock.
- **System availability:** The way the system works and responds on time, without experiencing downtime, malfunctions or other inconveniences.
- **Privacy:** This section reviews how companies work with personal and sensitive data from customers, and how safe are these details with them from unauthorised users. This point is extremely relevant because in e-commerce, each business gets financial details and, in some cases, private information like health care details, which could be easily misused.

Therefore, the E-SERVQUAL model can be of assistance to organizations with a strong online presence in evaluating their quality levels and proposing specific strategies for improvement that will have a positive effect on enhancing customer satisfaction and loyalty. There is an endless array of specific levers around online services that businesses can pull to optimize their approach and build customer trust for using their digital environments.

The E-SERVQUAL model has limitations as well. The most obvious limitation stems from the nature of its data, as much is self-reported and less reliable to determine any deeper insights. We also note that the model is based on transactional dimensions of service quality and does not extend to experiential or even relational issues that are important in online contexts for building customer loyalty.

## **2.3 Electronic Commerce**

Electronic commerce (e-commerce) is in simple words the action of buying or selling products or services through the Internet (Chaffey, 2015). It is important to highlight that e-commerce is not the same as e-business, the latter has a wider scope, which includes all key business processes done on the Internet such as internal communication, supply chain control or storage instructions, so, these activities can or cannot be related with sales, while e-commerce includes only stages of the purchasing process (Chaffey 2015).

### **2.3.1 History of E-commerce**

In the early 1990s, some businesses tried to open their online channels, encouraged by the end of the military and academic validation phase of the Internet, which allured the beginning of new uses for this revolutionary tool. This represented a new form of trading that was no longer dependent on physical or geographical limitations, offering uncountable opportunities for companies, but also uncertainties. Examples such as Amazon or eBay, which broke the mould with their disruptive business proposal added to the exponential expansion of Internet users throughout the last decade of the century, boosted a completed virtual marketplace.

This time was also characterised by the accelerated rise of various online start-ups colloquially called the “dot-com” companies, referencing the following dot-com bubble in the early 2000s. These companies went public at record rates and flowed into fund an unprecedented wave of Internet start-ups, however, many of these businesses did not have a serious profit model and were overvalued. That contributed to the dot-com crash between 2000 and 2001, which forced thousands of companies to close and reshape the e-commerce business centralising on regular and financial solvency.

On the other hand, the development of new technologies in the new century helped to strengthen sales online. For example, new web services and apps extended the capabilities and availability of e-commerce, safer platforms to do transactions reduced fears from consumers to purchasing online, or the increased use of smartphones and

tablets changed customer behaviour, making it possible for buyers to browse their options regardless their locations.

The e-commerce industry today is evolving at such a rapid pace due to ever-changing technological advancements and consumer trends. Today, e-commerce is all about increased personalization and leveraging large volumes of data to make use of artificial intelligence for a better shopping experience. The COVID-19 pandemic has already catalysed the existential consumer trend of shifting to e-commerce over traditional brick-and-mortar operations and forced most businesses to at least partially online in order to keep up with increasingly internet-savvy consumers.

### **2.3.2 Features of E-commerce**

One of the most characteristic features of e-commerce is convenience. It means that both, the buyer and the seller can be in any place around the globe where there is an internet connection, giving the advantage that there are no physical borders to reach more customers and the trade is not limited by normal store open hours.

Furthermore, customization is another big benefit of e-commerce. It provides more personalized experiences and products, which in turn boosts customer satisfaction levels. This personalized approach not only caters to unique customer concerns but also helps in the improvement of brand relationships, thereby boosting sales and improving customer retention.

On top of that, another characteristic that is beneficial for customers is lower prices. By being a no-stores model it tends towards lower prices than physical retail expenses which are passed on to its customers. Also, the fact that the group of target customers is virtually higher than brick-and-mortar stores leads eventually to reduced prices due to higher production with lower costs.

Certainly, there are some disadvantages for customers in electronic commerce. One of them is that products cannot be fitted or touched before purchasing them. It causes that

sometimes the quality of products or sizes to differ from the customer expectation, resulting in lower customer satisfaction.

Further, post-sales services are more complicated in e-commerce models than in traditional stores. It is based on different hours between the customer and seller locations, the process of returning that includes an extra fee and time, communication issues, and higher risks in the process.

Another issue is that customers do not have guidance from an expert on the matter. In some industries such as healthcare, finance or automotive it is essential to obtain expert advice to make the right decisions, in order to avoid future inconveniences. In e-commerce, interactions are mostly automatised, where the customer just picks their options from a catalogue, and the purchase can be done without problems, even if the final quality of the product is not optimal.

From the business's perspective, some struggles when facing e-commerce might be considered as well. The first is the website design, which must be attractive, intuitive to navigate and perform correctly. This may be omitted by some companies, however, a poorly built web page can lead to lower purchases and detriment to the company image.

Other important point is that websites must be safe. When a customer makes a purchase online, the firm gets access to certain private information as financial details or personal information. All those are sensitive data, that companies must guarantee are processed rigorously and safely to avoid filtration and misuse of them. For example, this point is so important that in the European Union, there is a special law which protects and ensures people's rights related to their personal data, the General Data Protection Regulation or GDPR (Drechsler, 2023).

A third element is the need to develop alliances with key partners. For instance, one of the most neuralgic tasks in online purchasing is shipping the bought products on time and in a good state to their final destination, and also it is in this stage where an important number of issues appear. Any problem on the supply chain or during the delivery ends up in customer complaints, lower customer satisfaction and lower

intention of repurchase, and considering this service is usually offered by third parties, it is important to have a reliable partner to execute it.

#### **2.3.4 Comparison Between Traditional Stores and E-commerce**

There are many situations where the experience between traditional stores and online stores differs. One of them is the decision-making process. In brick-and-mortar stores the experience is highly sensitive, being the customer to touch and see the products to compare. In addition, sales personnel may help customers get guidance and the environment also plays an important role in encouraging customers to close the sale.

Further, in e-commerce, the customer journey depends on digital assets such as product descriptions, reviews from previous buyers and ratings. With loads of information available, it is easy for customers to research and compare product features before making a purchase, taking more time to assess their best option, and having a wider variety of choices from many sources.

Talking about trust and security, it is possible to stand differences too. From the side of quality, in brick-and-mortar stores, the customer has the option to interact directly with the product, checking material quality, if it fits properly, and on some occasions even they can try the product and bring it home on the same day. In addition, customers perceive a greater sense of security in physical settings when they pay using familiar and traditional methods such as cash and credit cards.

Online stores do not possess a physical presence and therefore they need to gain trust through a strong platform with product features, and customer reviews where previous customers can share their experiences (quote). Respect for the transaction process through secure and clear payment methods with robust encryption and high cybersecurity standards is also fundamental to ensuring safety.

Another important difference is pricing. Price strategies play an important influence on customer behaviour and their experiences. In traditional stores, operational costs

for a physical presence are higher which is passed on to customers, thus these businesses, to compensate for this disadvantage, seek to attract walk-in sales.

In contrast, e-stores have lower operating costs. They can use this advantage to offer competitive prices which are very dynamic compared to their store-based counterparts as they can easily be reshaped according to demand or competition inducing higher customer satisfaction and retention.

### **2.3.5 Customer Behaviour**

Customer behaviour is a decision-making process related to what consumers do and how they act when buying goods or services. Traditional retail settings rely heavily on sensory experiences and personal interactions that affect purchase decisions, while in the case of e-commerce, shopping behaviour is shaped by digital interplays. In physical stores, customer behaviour assessment can be exploited directly while the customer is browsing and in face-to-face interactions, spending time with the consumer to understand their preferences and offering a solution thereafter. On the other hand, e-commerce uses information about digital footprints including page views, click-through rates and purchase history to determine consumer behaviour and their needs to impulse a purchase.

Traditionally, customers seek online platforms for convenience prices or more information about products of their interest. Online shopping promotes price comparison and deep product research, as shoppers can easily check prices on a variety of products from multiple retailers connected to the web. Moreover, the anonymity of e-commerce may affect shopping patterns as consumers are more likely to feel less inhibited in purchasing products that they would not buy offline.

Consumer behaviour online is affected by many technological factors such as website functionality, design of interfaces and mobile compatibility (Wienclaw, 2024). A well-designed website that is easy to navigate drives longer browsing time and repeat site visits, while a poorly designed site does just the opposite, frustrating the buying intention.

There are also psychological reasons, including trust and risk perception in the e-commerce environment. Consumers want to be able to trust their personal and financial information is safe with their transactions and get the products they order. The quality and value of products are also assessed through detailed product descriptions and user reviews that facilitate purchasing decisions.

On the other hand, social proof is an essential factor when it comes to purchasing, especially in today's digital world. Social media marketing, which is the interaction between customers sharing reviews on companies' webpages, third-party websites or social media such as Facebook or Instagram, is an effective strategy to influence people's opinions to engage them with the organisation or brand (Chaffey, 2015).

### **2.3.6 Challenges and Solutions**

While e-commerce is a game-changing innovation for the retail industry, it also comes with its own set of challenges that anyone venturing into this space must overcome to succeed. Low entry barriers for new online retailers allow more alternatives to acquire the same product, and this drives more intense competition to get shopper attention, which is one of the major challenges.

Otherwise, sourcing economic and competitive logistics and supply chain management can be problematic. E-commerce companies depend on faster and more reliable delivery of goods, meaning that quality logistics infrastructure is a must. Managing inventory and timely delivery via extensive geographical areas can be very complex. The logistics can overcome the aid supply chain using some solutions, for example, having sophisticated inventory management systems, leveraging technology such as artificial intelligence in demand predictions and optimising long lead time for delivery.

Customer retention is important, and remote retail shopping can distance customers making it more difficult to create loyalty. The personalized service is one of the things that many e-commerce platforms continue to find a challenge when it comes to replicating in comparison to physical stores. As a solution, many e-commerce



businesses are adopting personalized marketing and customer service solutions. The use of data analytics to learn about the preferences and behaviours of customers allows businesses to adapt messages, and offer individualized customer requirements while increasing satisfaction and loyalty.

In the e-commerce space, cybersecurity is another major threat. There are so many people exchanging sensitive data in the digital market that hackers are trying to steal information. Purposes for this can be varied like damaging the image of organisations, scamming, or selling data to third parties, all these becoming prevailing to check constantly system vulnerabilities and the use of safer mechanisms such as end-to-end encryption.

In general, e-commerce faces unique challenges due to its new business model. Virtual interaction, logistics, and security in personal and financial data are characteristically predominant, compared with its counterparts in offline commerce. Innovation, tailored service digital market and efficient logistic solutions emerge as the main answers to overcome these difficulties and take advantage of all benefits of the online marketplace, which every day is stronger.

## **2.4 Eyewear Industry**

The scope of what is understood as the eyewear industry is not exact, and borders can be diffused. Traditionally, the term eyewear refers to frames to correct vision defects and sunglasses, and its industry is related to everything in the process of design, production and sale of those items (Sicari, Rizzardi and Coen-Porisini, 2020).

However, this definition is insufficient, considering that optical frames cannot correct vision without lenses or a sunglass cannot safeguard eyes without proper treatments (Murmura, Bravi and Santos, 2021). Thus, the eyewear industry considers the design, manufacture and distribution of corrective and protective eyewear, including prescription glasses, sunglasses and contact lenses (Murmura, Bravi and Santos, 2021).

Talking about numbers, this economic sector has grown expeditiously during the last years (Khanna and Bhatia, 2018). An example of this is EssilorLuxottica, one of the biggest companies in the industry, which showed a growth in its revenue of 7.1% during 2023, and it is the third successive year with an increase of over 7% (EssilorLuxottica, 2024).

#### **2.4.1 Regulations**

In difference to other products, spectacles are medical devices to treat health issues, in this case, refractive error, which if they are not treated properly, causes other complications such as pain, strained eyes or even, in children can end up in an inappropriate development in the visual system or visual impairment (Signes-Soler et al., 2024).

As medical devices, commonly prescription eyewear are highly regulated compared with other retail sectors where the selling of products would be more liberal (Sicari, Rizzardi and Coen-Porisini, 2020). The regulation ensures that eyewear is prescribed only by qualified optometrists and ophthalmologists, resulting in the assurance the products meet certain safety standards driving to good eye health (Sicari, Rizzardi and Coen-Porisini, 2020).

In Ireland, prescription glasses dispensing is regulated by the Opticians Acts 1956. This legal code delimitates different aspects in the sector such as who is allowed to prescribe glasses, limitations for sales in the optical sector, and conditions of the Bord na Radharcmhastóirí (Optical Registration Board) (Opticians Act, 1956).

However, not every country is the same. Another approach is seen in Chile, where the DFL 745 which is their sanitary code, establish who are allowed professionals to prescribe glasses, unlike the Irish approach, it indicates that those professionals must not be involved in the dispensing process to avoid economic conflict of interests (Ministerio de Salud Pública, 1968).

These rules apply to several organizations in the eyewear industry. Ensuring compliance requires significant investment in quality control systems, certification processes and even protracted product testing (Rivero Gutiérrez and Samino García, 2020). These complex regulations not only guarantee public safety and efficacy but also raise barriers to entry for new market entrants in a largely monopolized industry with massive ongoing fixed costs. Nevertheless, it is of major importance to follow these legal guidelines, not just legally but also for consumer trust and market reputation (Sicari, Rizzardi and Coen-Porisini, 2020).

#### **2.4.2 E-commerce in the Eyewear Industry**

To start, it is necessary to understand briefly the purchase journey of traditional opticians. Typically, this process begins with a visit to an optometrist or ophthalmologist for an eye examination and prescription. Once these customers have a valid prescription, they visit optical stores that will offer a variety of frames and lenses for them to choose from, also providing professional advice (Rivero Gutiérrez and Samino García, 2020). The offline experience allows customers to try the frames on themselves, talking face-to-face with opticians and making sure of the correct fitting.

Likewise in other industries, e-commerce is expanding in the eyewear market. One protective factor for offline sales has been all regulations mentioned previously, however, several reasons propitiate the rise of online sales of spectacles (Rivero Gutiérrez and Samino García, 2020).

One of these reasons is the convenience of making purchases online. For some customers, the process of buying prescription glasses in traditional stores is cumbersome because it is a time-consuming task, in some cases, they need to change their location from the eye care professional to the store, or simply customer behaviour has changed and they more comfortable obtaining their spectacles online (Rivero Gutiérrez and Samino García, 2020).

The development of technology, as well as in other industries has played a central role in e-commerce adoption by prescription eyewear customers (Astuti et al. 2023). On the one hand, new technologies such as better platforms, security tools and electronic devices that make the purchase encourage clients to consider the online marketplace as an option (Aslam et al. 2024).

Furthermore, new tools are supporting to try prescription frames virtually, providing to customers more confidence and guarantee that their purchase will not end up in return because of lack of fit (Astuti et al. 2023). An example is the new augmented reality and face-tracking programs, which in conjunction with clear product features, allow customers to have a clearer idea of the spectacles they are purchasing (Astuti et al. 2023).

In addition to the aesthetic fitting, some parameters need to be considered in a glasses dispensing such as the pupillary distance, heights or the tilt angle of the frame on customers' heads (Tian and Ball, 2023). Tian and Ball (2023) propose a head 3D scan through pictures that give a more realistic fitting considering completely tailored recommendations for customers and taking those additional but important measurements without the need to be physically in the store.



**Figure 3.** Example of face-tracking and 3D frames (Astuti et al. 2023)

Also, social marketing is playing a crucial role in developing this industry in the online marketplace. During the last few years, advertisements of products in social media have had an upswing and channels that are commonly considered informal, with excellent results. An example of an opticians that has based its business strategy on

strong digital marketing and sales online is the Mexican Ben and Frank, which has reached the international market in a few years by starting up brands in Colombia and Chile.

Finally, the fact that during the pandemic of COVID-19, there was a boost in online sales in the eyewear industry due to lockdowns and movement restrictions (Soava, Mehedintu and Sterpu, 2022). However, after the emergency online purchases have not plunged to pre-pandemic numbers, even, if it is slower than during the sanitary emergency, online commerce figures have kept increasing (Soava et al. 2022).

In the eyewear industry, the same trend is appreciated in EssilorLuxottica's numbers. The company rose its figures in the e-commerce channels during the pandemic rocketing 60% in online sales between 2019 and 2021 (EssilorLuxottica, 2022). This indicator stabilised in the following periods but until the last report, it has kept a slight increase in the successive years (EssilorLuxottica, 2024).

### **2.4.3 Customers Views**

Even though eyecare professionals have expressed their concerns about the implications of selling prescription glasses, missing the human touch, it is not possible to deny the advantages that e-commerce brings to customers (Sivak, Spafford and Irving, 2020). Already known characteristics such as lower prices, which sometimes is prohibitive in brick-and-mortar stores, the possibility to make the whole process from home in anytime and a wider offer of models and designs lead more people to try this channel over traditional commerce (Sivak, Spafford and Irving, 2020).

According to Sivak, Spafford and Irving (2020), five factors influence the decision to purchase prescription eyewear online, two of them incentive online buying and three of them disincentive it.

Factors to allure e-commerce adoption to purchase prescription glasses:

- **Cost:** Eyewear is usually an expensive item, whose value can be prohibitive, restrictive and/or limit access to customer needs (eye prescription and fashion).
- **Convenience:** Glasses dispensing can be a bureaucratic and complicated process, including the eye exam, actual purchase and collection.

Factors to reluctant adoption to prescription glasses:

- **Fitting issues:** the fact it is not possible to fit the frame before buying it is one of the main concerns of customers. At this point, it is important to consider also some measurements taken during the dispensing.
- **Trust/Quality:** Refers to how safe online items are. However, in a second study, they mention that products sold online have the same quality... interesting for discussion according to our own results.
- **Ethic/Loyalty:** Older people feel more loyal to their eye care professional and the opticians they have bought glasses for years. Some consider it disrespectful to go to the optometrist to get the prescription and after buy the glasses somewhere else.

## Chapter 3: Research Methodology

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### 3.1 Chapter Introduction

It is important to understand the methodology as a guideline for every research, which helps researchers avoid the natural bias that everyone has as human beings, allowing the new knowledge obtained from this job will be as realistic, reliable and useful as it is possible.

Furthermore, this chapter will develop the research framework used during this investigation, based on all information, analysis and gaps found in previous chapters, which guide the method such as the opinion of Saunders, research philosophy, approach, strategies or analysis.

Although alternative research methods will be examined, specific tools utilised to measure and evaluate these instruments. The chapter ends with the constraint of some chosen methods and ethical considerations for research. We end with a description of the data analysis methods used in this investigation, which provide insight into how we disambiguated and translated collected data to answer our research questions.

### 3.2 Research Aims and Objectives

The primordial aim of this investigation is to establish customer satisfaction in people who have bought spectacles from online stores, understanding the reasons for the final result and the consequences of the same for eventual future business opportunities in an everyday more globalised world. As was explained in Chapter 1, the eyewear industry is a very specialised sector, where there is not much formal research available about its commercial insights, particularly related to e-commerce and post-sale phenomena in the industry such as customer satisfaction.

Customer satisfaction is a crucial parameter when it is wanted to evaluate the performance and projections of an industry, company, product or brand. In the case of eyewear devices such as spectacles, contact lenses or protection glasses, this

satisfaction is even more important, because it is strongly linked to people's health (Sicari, Rizzardi and Coen-Porisini, 2020). The objectives of this research are the following:

1. To determine customer satisfaction with customers who have bought prescription eyewear online.
2. To evaluate the role of customer expectations related to costs, convenience, fitting, quality and loyalty in the decision-making process to purchase prescription eyewear online.
3. To assess the role of quality and perceived product value in customer satisfaction.
4. To assess possible issues and repurchase intention between customers who have bought prescription eyewear online.

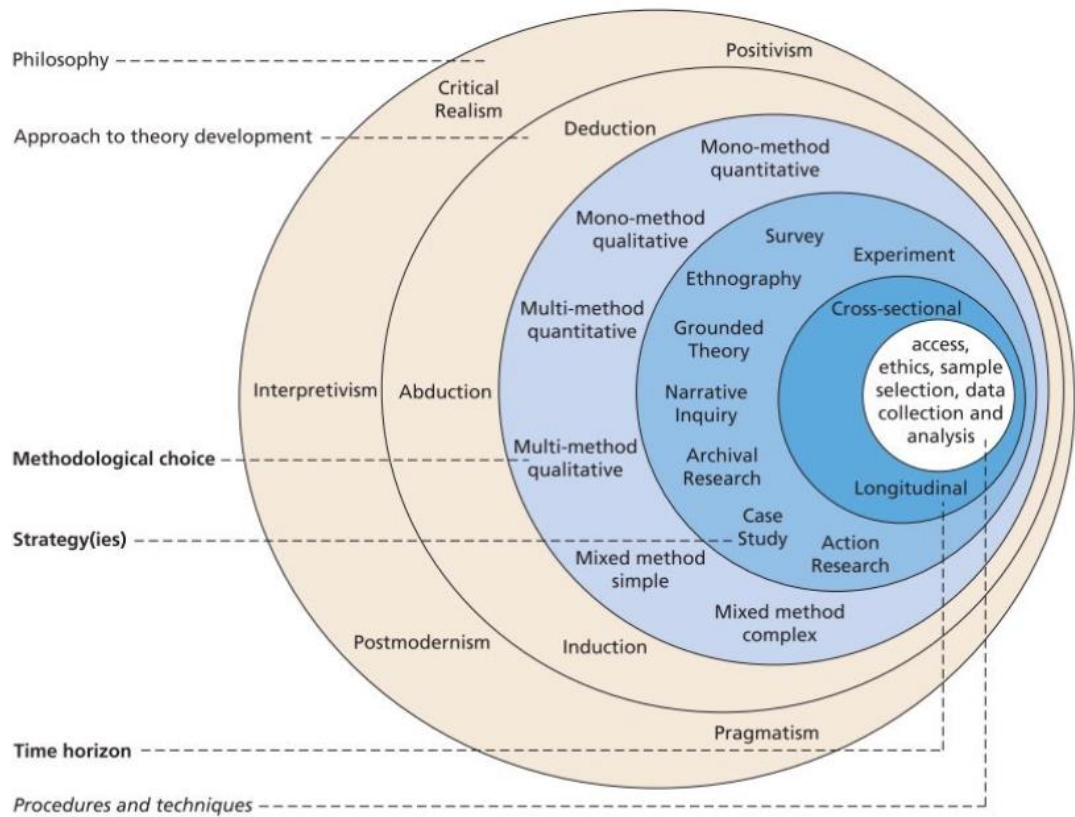
### **3.3 Proposed Research Methodology**

The Saunders Research Onion is a known research frame that offers comprehensive structure and planning for conducting the studies. This model is designed to lead researchers through the stages of different stances during a research process making sure that each move forms an integral part completely linked with others.

The analogy of the onion is used to demonstrate how one layer is built upon another in terms of constructing a research design that progresses from broad philosophical matters or generalizable questions down to specific data collection practices. A highly structured approach that guides researchers in choosing methods taking into account the research questions and objectives of a study.

The research onion design is a circular figure which consists of six layers. Each layer represents an aspect of the methodology dimension such as philosophy, approaches, strategies, methodological choices, time horizon, and techniques and procedures (Saunders, 2023). These topics will be developed deeper in the following paragraphs.





**Figure 4.** The Research Onion (Saunders, 2023, p.177)

Nevertheless, this framework has inconveniences. A limitation is the onion rigidity, which may become problematic in some situations, for example, studies that demand a high level of adaptability. A linear order of the layers may not reflect some iterative research processes in which decisions are revised and based on new information obtained and thus researchers have to go back and forth between the layers. This approach may also sometimes lead to a focus on progression that prioritizes methodological coherence over the methods' relevance.

An alternative to Saunders' research onion is the Research Design Framework of John Creswell, which is focused mainly on philosophical worldview strategies of inquiry and choice of methods (Huyler and McGill, 2019). One of the greatest strengths is that Creswell's model allows for flexibility in research, mixing approaches and giving more freedom to choose between them (Creswell, 2003, p. 23)

In the case of the present study, considering that its main focus is in business science over social sciences, and the process is highly structured, the researcher considers that Saunders' model is more suitable for this paper.

### **3.4 Research Philosophy**

In the Onion of Saunders, philosophy is the most external layer of the whole model, wrapping the other parameters. This indicates this dimension involves and influences all decisions during the formulation of the research method (Quinlan, 2019). Creswell (2003) explains that philosophy in research is commonly shaped by personal opinions, values and experiences of the researcher.

In other words, research philosophy circumscribes the basic beliefs and assumptions that guide how knowledge is generated and understood, existing three approaches to apply during this process: ontology, epistemology and axiology (Saunders, 2023, p. 131).

#### **Ontology, Epistemology and Axiology**

Ontology is the essence of being and reality, where it refers to some characteristics or associations with the phenomenon (Saunders, 2023, p. 135). In other words, ontology references reality. Ontological stances taken by researchers can affect how they examine the world and view certain elements as knowledge, stating questions such as if humans are capable of really understanding everything that exists, and the rejection to interpret reality further than what is indisputably real (Aliyu et al. 2015).

In the research itself, axiology points out values and ethics. It tries to understand how researchers' values have a significant influence on the investigation process, including what topics we study and even when it is present when they interpret data. Axiology is important as research to contribute to ethical aspects such as honesty exercise and respect for the human being. Creating this axiological perspective will affect the application of what can be learned and how it to ethically studied so that research contributes not only knowledge but also adheres principle which has ethical.

Epistemology is the study of knowledge. This branch pertains to how people come to know things as well as what can be known. Epistemology asks questions about the role of a researcher in the study. For example, a positivist epistemology believes there is a piece of objective knowledge and it can be measured by observation or experiment. By contrast, interpretivism epistemology would contend that knowledge is relative to the knower and his or her circumstances and therefore a proper understanding of human experiences requires interpreting those meanings in situ. It is the view of epistemology that guides a researcher through data collection and analysis.

Also, according to Saunders (2023), there are five different approaches to managing each one of these philosophical assumptions, affecting the final analysis of the data how it was exemplified in some previous explanations:

- **Positivism:** Related to what can be seen and studied, aiming to avoid bias in the conception of the knowledge, being this clear and precise.
- **Critical Realism:** Considers reality as something external and independent that can be perceived through their senses, but understanding that their perceptions can be deceived.
- **Interpretivism:** State that human circumstances are different than physical phenomena, thus, these different types of research must be approached differently. Human experiences are extremely complex to establish universal laws or general conclusions to be extended to everybody how it is common in natural science research. For example, 20 students in a classroom have 20 different learning experiences for different reasons (such as location in the classroom, family issues or preference for the subject), so it is detrimental to confirm that certain teaching strategies will impact each one in the same way.
- **Postmodernism:** Emphasizes that language plays a predominant role in the generation of knowledge and that it is never sufficient to represent reality in

an absolutely objective way. It also explains that power relations influence language, and therefore, also how reality is perceived.

- **Pragmatism:** States that concepts are important only if support action. In this approach, abstract concepts are avoided, and there is a high focus on achieving practical results for clearly established problems.

Considering that in this research, collected data comes from people's experiences to generate a new piece of knowledge, and adding that, it is also necessary to consider, understand and analyse the personal circumstances of every individual to develop proper conclusions, this author considers the interpretivism epistemology is the philosophy more accurate for this paper.

### 3.5 Research Approach

A research approach is the plan and process used in conducting a specific research. whose steps are drawn from the methods that were discussed earlier. It is the broad design that guides a researcher on how to bring all pieces of research together in an integrative and coherent manner (Saunders, 2023). The nature of the investigated problem and the philosophical assumption that will be guiding the research can also determine which type of approach to use (Saunders, 2023). It is generally put into two categories: inductive and deductive reasoning.

An inductive approach involves developing theories and insights from the empirical data. Inductive research starts with specific observations and moves toward broader generalizations and theories. This approach is very helpful in qualitative exploratory research since the researcher tries to understand complex phenomena without any prior assumptions.

On the other hand, deductive research begins with a general theory or hypothesis and then data is collected to test this among other types of empiricisms. This approach is often used when a study aims to test existing theories, and most recent studies have

been done using this method. Deductive reasoning is more rigid and structured than inductive; it can be planned methodically before conducting the study to guarantee that all facets of a problem or hypothesis may be analysed, and deduction points out variables we need to measure.

In the present research, the methodology aims to discover insights from interviews related to the customer experience and customer satisfaction of eyewear users in the online market, thus the inductive approach is more suitable for this investigation. Further, previous literature is focused on the pre-purchase stage, studying factors that affect the making decision process to buy glasses online, but information about post-purchase situations is limited, so from these personal experiences will be tried to state general conclusions.

### **3.6 Research Strategy**

A research method is essentially an overall plan that guides the collection, analysis and interpretation of data. It highlights the exact analytical techniques and plans to answer research questions or hypotheses, making certain that there is a logical as well as systematic process for conducting the study.

Quantitative research is a strategy that emphasizes quantifying relationships, behaviours or phenomena. This is related to analysis and investigation via numerical data using tools such as structured surveys, formal questionnaires or experiments. The main goal of quantitative research is to confirm or reject hypotheses through statistical measurements. It usually utilises the deductive method, which tests already existing theories with empirical observations. Quantitative research in general produces generalisable findings, moreover has high sample sizes and standardised data collection.

Conversely, qualitative research is an approach that tries to understand complex behavioural and social phenomena by collecting non-numerical data. This methodology is linked to an inductive approach and aims to come up with new theories

or insights from the nuanced descriptions, observations, and interpretations of subjects' experiences, practices and interactions. In qualitative research data is collected by in-depth interviews or focus groups related to a specific topic. This approach is ideal for exploratory studies where the objective is to gain an in-depth understanding of individual cases, and study the context to comprehend the meaning of subjective experiences.

In this case, the present research is qualitative, due to the lack of a previous framework to be confirmed or rejected, the deep analysis of customer answers and the main purpose to evaluate personal experiences.

### **3.7 Data Collection**

This research is an interpretive epistemological study through inductive and qualitative methods. These studies seek to understand the experiences of the investigated subjects, obtaining knowledge through them for new findings by setting up models and theories that are in direct link with these research objectives (Saunders, 2023).

Referring to the types of interviews can be classified into three types: structured, semi-structured or unstructured. In quantitative projects, interviews are structured, being surveys or close-ended responses. They have the advantage that are quicker to be answered, allow covering a wider sample and yield extrapolated results. However, they are limited to offering deeper analysis of non-tangible phenomena or are not optimal if there is no previous framework to support them.

In contrast, in qualitative research, the questions may be unstructured and resemble a spontaneous conversation which can provide more honest insights, but might be harder to cover all needed bases and subsequent data analysis (Bryman and Bell, 2011). The second type, semi-structured interviews, creates a set of questions designed to obtain key information in order to answer research questions and objectives, but

also makes room for additional questions if relevant topics are brought forward by an interviewee, which requires further inquiry from the researcher.

Moreover, data may be divided between primary and secondary. Primary data is when researchers collect information directly from the study subjects with the advantage of obtaining more reliable data because collection methods and tools were designed thinking in this particular research. However, this process is more time-consuming.

Secondary data is where a third party gather the information through different methods and after, researchers acquire that information by public database, purchasing it or obtaining the rights to use it. The pros of this approach are the convenience of saving time in the collection of data, and even in some cases, this data is already processed in some way. Nonetheless, there is no guarantee of the quality of the material, related to whether it was obtained following ethical and methodological rules, or whether this information is free of bias.

Finally, considering that the nature of this study aims to obtain information related to personal experiences, and needs the flexibility to delve into some topics if it were necessary, in addition to the desire to obtain the most accurate information possible, the researcher has opted to primary data conducting semi-structured interviews.

### **3.8 Population**

During qualitative research, the ideal is to interview a certain number of people to obtain insights about the study topic. The sample of this paper was people who have bought prescription eyewear through the Internet, with different backgrounds and experiences related to the use of ocular correction for refractive errors.

The number of people interviewed is six. Segmenting them for sex, five are female and one is male, their ages were between 27 and 54 years old, all of them are full-time workers, and finally, four live in the Republic of Ireland (however, one was living in Mexico at the time of buying glasses online) and two in the Republic of Chile. If the

number of interviews is clearly a limitation related to extending the findings to the general population, it is valuable to have a first approach to the topic.

During the interviews, the semi-structured approach was chosen allowing the subjects to expand their answers as much as they considered necessary and giving the flexibility to add more questions if it was needed. Interviewees gave their consent to record and transcribe the conversations through the platform Teams, and they received and approved the informed consent attached to the invitation for the meeting. It was their choice to keep the camera on or off because personal images are not important for this research.

Interviews were carried out in English or Spanish, according to what was more comfortable for the respondent. In the case that the chosen language was Spanish, the transcription was translated into English, and all transcriptions were doublechecked with original voice records by the researcher to guarantee the accuracy of data and in the case of translations, that original ideas were expressed properly in the second language. All this data is stored under passwords by the researcher, taking responsibility for that information.

### **3.9 Analysis of Qualitative Data**

Data analysis is the process where collected information is given of meaning (Saunders et al. 2023). During data collection in qualitative research, researchers must listen and pay attention to all details during interviews to maximise useful data that can be extracted from them, because data analysis must be systematic and rigorous to obtain credible and reliable results (Neale, 2016).

After interviews, it is time to analyse transcriptions and export important insights contained in them. Rodríguez-Doran (2020) proposes practical advice such as highlighting using different colours for each topic to visualise easier to match the same topic between different individuals, or identifying keywords in the text. Neale (2016),



explains that qualitative data may be unorganised and researchers must establish an order on them, for example setting main topics from research objectives.

In this piece of work, following recommendations from Neale (2016), all data is transcribed, and after that important topics and statements are extracted and cross-referenced, to finally obtain findings and generate conclusions according to these research objectives (Braun and Clarke, 2006).

### **3.10 Ethical Issues**

According to Quinlan (2019), ethics is the reasoning process where the right things are done, which must be applied. The author explains that ethical dilemmas are a complicated issue in business research, because throughout history, many businesses have not worked under ethical principles, and also, the perception about what is correct or incorrect changes with time and culture (Quinlan, 2019, p. 42).

Saunders (2023) explains there are some principles that must be present in each investigation, such as integrity, avoidance of harm, respect for others or voluntary participation. This research adheres to all these principles to protect the well-being of participants.

Previous to doing this research, this author has completed an ethical review expressed in an ethical form, provided to the National College of Ireland, explaining the practices in this research, to guarantee the work done is under ethical considerations.

### **3.11 Limitations to Research**

As with every research, this project has its limitations that need to be considered at the time to read the results and conclusions. The main limitation of this research is the number of interviews made, which means these results cannot be considered definite. This sample is due to two central factors. The first of them is that most people prefer to purchase their prescription glasses in brick-and-mortar stores due purchasing

glasses online is still an early adopters' preference, which makes it difficult to find individuals who have had this experience. The second factor is time, as a student dissertation this project has a specific deadline that must be respected, restricting the number of interviews that could be carried.

## Chapter 4: Findings and Discussion

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### 4.1 Introduction

In this chapter are the most important insights from in-depth and semi-structured interviews done with six people during August 2024. According to what was explained in Chapter 3, Table 1. explains what are the main topics related to each objective.

Objective	Topics
To determine customer satisfaction with customers who have bought prescription eyewear online.	<ul style="list-style-type: none"><li>- Purchasing process</li><li>- General Satisfaction</li><li>- Positive aspects of online purchasing</li><li>- Negative Aspects of online purchasing</li></ul>
To evaluate the role of customer expectations related to costs, convenience, fitting, quality and loyalty in the decision-making process to purchase prescription eyewear online.	<ul style="list-style-type: none"><li>- Cost</li><li>- Convenience</li><li>- Frame fitting</li><li>- Expected product quality</li><li>- Loyalty</li></ul>
To assess the role of quality and perceived product value in customer satisfaction.	<ul style="list-style-type: none"><li>- Obtained product quality</li></ul>
To assess possible issues and repurchase intention between customers who have bought prescription eyewear online.	<ul style="list-style-type: none"><li>- Issues in purchased spectacles and fixing procedures</li><li>- Repurchase intention</li></ul>

**Table 1.** Objectives and main topic to be assessed in each one

## **4.2 To determine customer satisfaction with customers who have bought prescription eyewear online.**

### **4.2.1 Purchasing Process**

In general lines, all participants in this research expressed the purchase process was good. On some occasions, they felt differences compared to purchasing eyewear in a traditional store, but not as something negative.

*“It was a good experience, I keep purchasing my glasses there”* (Participant 4).

*“It was fine like it was a little bit different compared to going into a store, but overall the process was good”* (Participant 2).

Turning into the process itself, it was clear that there is no standardised method to make the purchase, in some cases the customer had to fill in a form with their details, in others they just sent a picture of their prescription, and even, in some occasions they had to use digital tools to obtain extra measurements that were not written in the prescription such as pupillary distance which is the distance between both eyes to match the optic centre of the eye with that of the glass.

Definitely, it is curious considering that the prescription eyewear industry is a sector highly regulated in many countries, the fact that online dispensing does not have a guideline to follow.

In the common steps, everybody has to submit a prescription, however, the system to do it is not set in stone. In this research, the most frequent method was sending a picture of an eye prescription, but additional measurements such as pupillary distance, have variations.

Maybe, it could be a reluctance from eye-care professionals, who are suspicious about the benefits of purchasing glasses online versus direct advice in a physical store.

### **Glass Selection**

In five of six experiences, the customer had any level of decision about what glasses they would cut and fit onto the frame. The most common features were coatings such as antireflection, blue filter or reactive glasses, and glass material like regular or thinner down glasses.

*“Yes, because when I requested the frame, they told me about the glass. That is, what the material of the glass was and, for example, if it had a blue filter or UV protection”*  
(Participant 4)

The literature has already established that spectacles are a tailored medical device which has different characteristics according to the customer’s needs. It is normal that people with higher prescriptions need thinner lenses or people with a sensibility to light need tinted ones. Also, it is going to avoid returns and guarantees, and allows an upgrade in the price of the average sale.

## **Platform**

In this section, the experience was diverse also. Two participants bought glasses from a big international online retailer in China. The other two did this through opticians’ social media, and the final two did it on websites built with the purpose of selling glasses on them.

*“It was A\*\*\* or one of those (of international retailers) sites”* (Participant 2).

*“I found it on social media”* (Participant 6)

*“I looked on V\*\*\*, but I also looked on a different website called F\*\*\* that I know sells the frames for a bit cheaper”* (Participant 5)

It is important to mention that all businesses, with the exception of the international retailer, have also brick-and-mortar stores, but in the case of the two participants who used social media, it was not possible to reach the physical store because in one case it was in a different city and in the other it was in another country.

The platform plays a neuralgic role in generating purchase experience and the following satisfaction. A poorly designed website does not encourage to purchase,

making this process unnecessarily complicated and tends to a major number of mistakes.

On the other hand, in most of these experiences, the retailer has already a physical store, using the online channel as an extra sales channel. It is definitely good because confers major seriousness to the process and opens options as the use of an omnichannel approach which is more used by different industries every day.

#### **4.2.2 General Satisfaction**

It was used the Net Promoter Score to obtain an overall view of customer satisfaction. The lowest calcification came from Participant 2 giving a 6, while the highest grade was a 10 from Participants 4 and 6. The average score among the 6 interviewees was 8.33 (SD  $\pm 1.63$ ).

In general, all customers can be considered as satisfied customers, only one gave a mark under the limit and that matches with the final question of repurchase intention. However, despite the overall media indicates it is an enthusiastic group in incentivising others to buy glasses online, it ended up being a very heterogeneous group where not all of them have strong feelings of repurchase. This confirms that the NET is good for delivering an initial approach, but it has to be complemented with other tools to give realistic information.

#### **4.2.3 Positive Aspects of Online Purchasing**

The two positive aspects that were most repeated throughout interviews were the option to do this process from home, making the customer feels more comfortable, and a major variety of frames to opt for compared with the experience when they do this in traditional stores.

*“Well, I think it's the ease of how to do it (buy glasses online), I mean, at the end of the day, I feel like I usually have to go and get tested and all those things... they send*

*the glasses to your home... and they arrived in less than 2 weeks, which is really great.” (Participant 3).*

*“I enjoyed being able to just go on and pick a pair of glasses and you know, not having to make an appointment, have to waste to it was a lot quicker and it was a lot easier. Just go on a kind of browse through a few different pairs of glasses that I thought would be suitable” (Participant 2).*

This finding only confirms that one of the strongest features of e-commerce is the freedom of customers to browse the wide number of options available on the internet, being able to look for information, compare products and pick one of them in the safety of their home.

#### **4.2.4 Negative Aspects of Online Purchasing**

On the other side, interviewees expressed that the fear of scams was a negative aspect of their experience.

*“I just was a bit worried that it could have been a scam” (Participant 6)*

Also, in one case they mentioned it was complicated to submit all details of their prescription on the platform.

*“The part that generated a little bit of issue was having to figure out how to upload the prescription” (Participant 2).*

Finally, the last mentioned issue was that the dispensing process when they were in touch with a salesperson took longer than in traditional stores.

*“It could be the delay in acquiring them, because, as I tell you, the entire process took 3 days... It wasn't like on other websites where you come, upload everything, and you're done” (Participant 4).*

As was said, cybersecurity is one of the most important customers' concerns at the time to purchase online. It does not include only the risk that a fraudulent site could

obtain their bank detail, it also includes the fact that it is easier to make scams with fake business on the internet than in reality. For this reason, e-commerce retailers invest in security, but also in tools that encourage customers to trust on them such as the review section.

### **4.3 To evaluate the role of customer expectations related to costs, convenience, fitting, quality and loyalty in the decision-making process to purchase prescription eyewear online.**

#### **4.3.1 Cost**

Cost was the most important factor in encouraging customers to buy spectacles online in five of six interviewees. According to their experience, the price of similar quality prescription glasses was between a quarter and half of the price for a similar product in physical stores.

*“That was the main motivation for buying them online, as opposed to going to an optician, I should say the price was significantly cheaper online and that was a factor that played very heavily into buying online” (Participant 2)*

*“In Chile, at that time, they (spectacles) used to cost me around €150,00 approximately, and quoting them on the Internet they cost €25,00, so it influences a lot” (Participant 1).*

Sivak, Spafford and Irving (2020) obtained the same results in their qualitative research. Cost and pricing are sensitive topics for companies, which need to generate the biggest revenue possible, without exceeding what customers are available to pay. On the other hand, as it is seen in this research, lower prices push customers to try new alternatives, and for this reason, e-commerce has become a very popular place for an increasing number of sectors and industries.



### 4.3.2 Convenience

Convenience was also cited as a factor promoting the online purchase of prescription eyewear, however, it has a secondary place compared with cost. The only exception was one subject because in their case, prices were the same on the opticians' website as in the store, but the frame was not physically available to be tried. In that case, availability was more important than price.

*“(Convenience has) The biggest influence because they had a bigger range online...but they didn't do any extra deal unfortunately” (Participant 5).*

Convenience is a wide term that includes aspects such as time, localization and variety of products. In this research interviewees considered convenience as an important feature, but in second place compared with cost. This situation matches with Sivak, Spafford and Irving (2020) findings. They explain this considering that price in the eyewear industry tends to be extremely high, even prohibitive, so, affordable eyewear always appeals to more customers.

### 4.3.3 Frame Fitting

In some experiences, optician stores online offered digital tools to try frames virtually. That can offer more certainty that the frame is going to fit properly once it is received.

*“The online store had the virtual try-on up. It was good because I didn't want to buy a frame and then not like it and then return it and then buy another frame” (Participant 5).*

Also, some interviewees expressed that they only looked at pictures in the virtual platform, and based on their experiences or knowledge, in addition to the information available on frame measurements, they estimated what frames were more suitable for them.

*“I already know what measurements suit my face. So I looked for frames with that sizes specifically, and also I know what models fit my head” (Participant 1).*

And, in one of the experiences the customer sent their prescription details to the optician, and they confirmed the technical feasibility of putting glasses with that power on the chosen frame, however, they did not give any advice about frame sizes for fitting.

*“I saw them in Instagram posts. I had to send my prescription and a photo of the frame I wanted, and they would tell me the feasibility, whether or not my prescription could be accommodated with those frames”* (Participant 4).

The impossibility of trying and fitting products in e-commerce is a common issue in e-retailers. Lack of contact does not affect only interpersonal relationships between seller and buyer, it affects also the interaction between the buyer and the product, generating concerns about quality when goods are got online.

These days there are already available tools that make the experience of buying glasses online closer to the experience in-store, however, they are not the same yet.

#### **4.3.4 Expected Product Quality**

In all cases, customers expressed that quality is something important when they are talking about their glasses and expected that even if they were cheaper, they should work properly and last, maybe less time than some from traditional stores, but a prudent time.

One interviewee explained that online stores are an excellent option when the budget is not high.

*“Honestly, at that time I was a student and as I said price was more important than quality”* (Participant 1)

As was explained in the chapter 2, customer expectations play a key role in the overall customer satisfaction. With higher expectations, it is more probable that they will not be fulfilled. However, in the case of eyewear, customers showed being aware that their future spectacles would not be as good as the ones purchased in traditional stores.

For this reason, when the device ended up being of good quality good generated high customer satisfaction, and even when there were some issues, customers were not as disappointed to close the option to repurchase glasses online in the future.

#### **4.3.5 Loyalty**

None of the interviewees expressed feeling loyalty or any ethical dilemma with their previous optician, due to the price online was significantly different.

*“No, the price is it's double the price online...My lenses are expensive enough, you know? And I just find that the opticians is it is very expensive. (Participant 6)*

In other cases, participants have just never had the costume to go always to the same optician, thus, they do not feel that loyalty to the venture.

*“No, it didn't really affect me, to be honest, I'd not gone to the same optician for a long time” (Participant 2)*

In this sample, most of the interviewees were around 30 years old, and there was only one over 50s. According to Sivak, Spafford and Irving (2020) in older generations, there is a loyalty feeling to their eye care professionals and opticians, which is translated into major reluctance to change them to purchase glasses online. This difference between the literature and our findings can be explained by the age of participants because they are Gen X or Millennials, but also because that research was conducted previous COVID pandemic, a time when the general population became more open to purchasing different goods online.

## **4.4 To assess the role of quality and perceived product value in customer satisfaction.**

### **4.4.1 Obtained Product Quality**

In one case the customer was not satisfied with the durability of the product, so in three months he bought a new pair from a traditional optician

*“I didn't want glasses that were just going to break after a few uses...it wasn't too long after I think I got about 3 months out of them and then I ended up going to an optician”* (Participant 2).

Also, there are situations where the quality of glasses in the online store is superior to previous glasses bought in traditional retail.

*“The arms of my glasses I bought in the optician used to get always loose, so I had to adjust them all the time... The first glasses I bought online two years ago are still in good condition, I got new ones only because my prescription changed”* (Participant 4)

In this sense it is complicated to obtain general explanations, thus, this discussion applies only to this sample. Analysing the answers, customers who bought their glasses from an international retailer expressed being less satisfied with their spectacles than other interviewees. This could be explained by in the other cases, their supplier of glasses were optical stores which also have a physical location. This means that in case a customer would not be happy with their purchase, would also have more tools to complain. On the other hand, these stores also have to follow local regulations in the place where they are set.

## **4.5 To assess possible issues and repurchase intention between customers who have bought prescription eyewear online.**

### **4.5.1 Issues in Purchased Spectacles and Fixing Procedures**

In general, customers did not relate issues with their vision of functionality of their online purchased eyewear. All issues just required minor adjustments, but one interviewee expressed it was a fitting issue that could have been prevented by trying the frame before.

*“Yeah, I did. I found that they were too loose to hold time. I think maybe they're too big for my face, tho”* (Participant 6).

In those cases, the main problem was that the seller was not physically available to request an adjustment. The solution in these cases was going to local stores to repair the glasses, which could generate an extra expense.

*“I have seen them (local opticians) help repair glasses from people who've come in with purchases from other online shops”* (Participant 5)

One important issue was that the frame lost its colour, however in this case the shop activated its guarantee policies, explained it was a material issue with that model in particular, and offered to exchange the spectacles.

*“Yes, they did fade, but the service was excellent and they sent me a new pair. It seems there was a problem with that specific colour”* (Participant 3).

### **4.5.2 Repurchase Intention**

In the repurchase intention, there were three approaches. Three of the participants have intentions to purchase glasses online again, one of them does not discard this as an option but is not particularly enthusiastic and considers the online market of spectacles more for spare pairs or specific situations, and two would not buy glasses online again,

one because thinks it is more convenient to buy them in a store, and the other because did not have a good experience.

*“Yes, in fact, I think my plan is to buy them there again”* (Participant 3)

*“So, it is a good option for spare glasses because if they get broken it is better to have a lower quality glass than nothing”* (Participant 1)

*“No, I don't think I would, to be honest... you know the issues you can have afterwards make it not worth it. I think you're better off just going into a shop”* (Participant 2)

As it was discussed previously, this group was completely heterogenic at the time to set their repurchase intentions. It can be related to their own expectation of their spectacles. It is known that some people have easier adaption to changes in their glasses, those patients usually present higher levels of satisfaction with their vision and are more open to variations and trying new products.

## Chapter 5: Conclusion and Recommendations

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In conclusion, it is possible to say that overall customer satisfaction in this research was positive. This is due to many factors such as people's willingness to purchase new and more complex goods in online retailers, like prescription eyewear.

Compared to brick and mortar stores, where the purchasing process is very similar, in online optical stores the situation is different. Tools, information available, and degree of customer choices between other factors were dissimilar between different individuals.

Certainly, this wide range of options to be found in the online purchasing process can bring completely different customer experiences that will influence customer satisfaction.

On the other hand, according to the Net Promoter Score, our sample should be enthusiastic in recommending buying prescription eyewear online and with a strong repurchase intention. However, even when experiences were positive in general, interviewees' opinions were more conservative.

Cost is the strongest reason to purchase glasses online, followed by convenience. This shows the importance of the pricing process and how encouraging is a good price to try new options.

However, quality is important for consumers too, and this is the main reason to not be enthusiastic in e-commerce. The overall customer satisfaction was good and supported by low expectations, and for the same reasons, it could be beneficial higher advice to improve these mixed experiences.

Finally, it is of huge importance to develop better post-sale channels to respond to issues with glasses, giving at the same time stronger support to customers and increasing repurchase intention.

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## **Appendix 1: Interview Questions**

### **Personal details:**

1. How old are you?
2. What is your occupation? Is your job full-time or part-time?
3. What is your country of residency?

### **Obj. 1: To determine customer satisfaction on customers who have bought prescription eyewear online.**

4. Do you consider the process of purchasing glasses online good or bad?
5. What was your overall experience when purchasing prescription eyewear online? What were the stages?
6. What parts of the online buying experience did you enjoy the most and why?
7. Which part(s) of the online shopping experience generated any inconvenience?
8. "On a scale from 0 to 10, how likely are you to recommend purchasing prescription eyewear online to a friend or colleague based on your experience?"

### **Obj. 2: To evaluate the role of customer expectations related to costs, convenience, fitting, quality and loyalty in the decision-making process to purchase prescription eyewear online.**

9. How did the cost of products influence you to buy prescription eyewear online?
10. How did the convenience (time flexibility, location, alternatives) of purchasing online influence you to buy prescription eyewear online?
11. How did you manage the frame fitting when you bought prescription eyewear online?
12. How important was the spectacle quality for you when you bought prescription eyewear online?
13. How did your loyalty to your previous opticians (if any) influence you when you bought prescription eyewear online? Did it generate any ethical dilemma?

### **Obj. 3: To assess the role of quality and perceived product value in customer satisfaction.**

14. How do you consider the quality of the glasses that you bought online?
15. Do you consider them good value for money? Why?
16. How important is for you the balance between value and quality when you buy spectacles?

### **Obj. 4: To assess possible issues and repurchase intention between customers who have bought prescription eyewear online.**

17. Did you have any issues with your glasses after you bought them online?
18. If it happened. Did the store fix the problem? How?
19. Would you buy glasses online again? If yes. What is the price variation that you would tolerate in the online opticians?

## **Appendix 2: Interview Questions (Spanish Verison)**

Here is the translation of the interview questions into Spanish:

### **Detalles personales:**

1. ¿Cuántos años tienes?
2. ¿Cuál es tu ocupación? ¿Tu trabajo es a tiempo completo o parcial?
3. ¿En qué país resides?

### **Obj. 1: Determinar la satisfacción de los clientes que han comprado gafas graduadas en línea.**

4. ¿Consideras que el proceso de compra de gafas en línea es bueno o malo?
5. ¿Cuál fue tu experiencia general al comprar gafas graduadas en línea? ¿Cuáles fueron las etapas?
6. ¿Qué partes de la experiencia de compra en línea te gustaron más y por qué?
7. ¿Qué parte(s) de la experiencia de compra en línea te generaron alguna inconveniencia?
8. "En una escala del 0 al 10, ¿qué tan probable es que recomiendes la compra de gafas graduadas en línea a un amigo o colega según tu experiencia?"

### **Obj. 2: Evaluar el papel de las expectativas del cliente relacionadas con el costo, la conveniencia, el ajuste, la calidad y la lealtad en el proceso de toma de decisiones para comprar gafas graduadas en línea.**

9. ¿Cómo influyó el costo de los productos en tu decisión de comprar gafas graduadas en línea?
10. ¿Cómo influyó la conveniencia (flexibilidad de tiempo, ubicación, alternativas) de comprar en línea en tu decisión de comprar gafas graduadas en línea?
11. ¿Cómo manejaste el ajuste de las monturas cuando compraste gafas graduadas en línea?
12. ¿Qué tan importante fue la calidad de las gafas para ti cuando las compraste en línea?
13. ¿Cómo influyó tu lealtad a tus ópticas anteriores (si es que tienes alguna) en tu decisión de comprar gafas graduadas en línea?

### **Obj. 3: Evaluar el papel de la calidad y el valor percibido del producto en la satisfacción del cliente.**

14. ¿Cómo consideras la calidad de las gafas que compraste en línea?
15. ¿Consideras que tienen una buena relación calidad-precio? ¿Por qué?
16. ¿Qué tan importante es para ti el equilibrio entre el valor y la calidad cuando compras gafas?

### **Obj. 4: Evaluar posibles problemas e intención de recompra entre los clientes que han comprado gafas graduadas en línea.**

17. ¿Tuviste algún problema con tus gafas después de comprarlas en línea?
18. Si ocurrió, ¿la tienda solucionó el problema? ¿Cómo?
19. ¿Volverías a comprar gafas en línea? Si es así, ¿cuál es la variación de precio que tolerarías en las ópticas en línea?

## Appendix 3: Informed Consent Sheet



### Informed Consent Sheet

Through this informed consent I authorise the use of my responses in the research called: "Impact of Online Purchasing of Prescription Eyewear on Customer Satisfaction". I consent freely to the record of the interview, transcription of the same, and analysis of data obtained.

At the same time, the researcher compromises that all data will be used exclusively for this research. That data will be maintained anonymised to the public and stored anonymised in case the college requests it as part of the work assessment. Recording of images is not requested and if it is done, is exclusively under the consent of the person. This research and data collection methods are under the Ethical Guidelines of the National College of Ireland.

### Interviewer

Name: Froilán Silva

Module: Dissertation

Year: 1<sup>st</sup>

Programme: Master's in Science in Entrepreneurship

### Interviewee

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Signature: \_\_\_\_\_

(Traducción al Español – Spanish Translation)

Mediante este consentimiento informado, autorizo el uso de mis respuestas en la investigación titulada: "Impacto de la Compra en Línea de Gafas Graduadas en la Satisfacción del Cliente". Doy mi consentimiento libremente para la grabación de la entrevista, la transcripción de la misma y el análisis de los datos obtenidos.

Al mismo tiempo, el investigador se compromete a que todos los datos se utilizarán exclusivamente para esta investigación. Los datos se mantendrán anonimizados para el público y se almacenarán de forma anónima en caso de que el colegio lo solicite como parte de la evaluación del trabajo. No se solicita la grabación de imágenes y, si se realiza, es exclusivamente bajo el consentimiento de la persona. Esta investigación y los métodos de recolección de datos están bajo las Normas Éticas del National College of Ireland.