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# **Improving Customer Experience in Online Grocery Shopping**

Addressing Barriers and Dissatisfaction

School of Management  
Master's thesis in Strategic  
Business Development

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**UNIVERSITY OF VAASA****School of Management**

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**Title of the Thesis:** Improving Customer Experience in Online Grocery Shopping : Addressing Barriers and Dissatisfaction  
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**ABSTRACT:**

Ruokakaupat ovat muuttaneet palvelumuotoiluun tarjoten asiakkaille mahdollisuuden tilata ruokaostokset netistä, tuoden samalla joustavuutta ja mukavuutta ihmisten arkeen. Koronapandemia nopeutti ruoan verkkokaupan kehitystä, vaikuttaen positiivisesti ostokokemukseen ja tarjoten tehokkaamman ja turvallisemman vaihtoehdon, joka on sittemmin jäänyt osaksi monen käyttäjän arkea. Palvelumuotoilun jatkuva kehitys edellyttää syvällistä ymmärrystä asiakkaan kokemuksesta ja tarvittavien parannustoimenpiteiden toteuttamista kohti entistä parempaa palvelua. Kuitenkin on yhä asiakkaita, jotka eivät ole vielä kertaakaan tilanneet ruokaa netistä, mikä luo pohjaa tälle tutkimukselle.

Tutkimuksen tavoitteena on selvittää, mitkä esteet ja tyytymättömyyttä aiheuttavat tekijät estävät asiakkaita tilaamasta ruokaa verkkokaupasta. Lisäksi halutaan selvittää jo verkkokauppaa käyttäviltä asiakkailta, joilla on kokemusta koko ostoprosessista alusta loppuun, mitä kehityskohteita he näkevät palvelussa. Tutkimuksen teoreettinen viitekehys pohjautuu aiempiin tutkimuksiin ja teorioihin, jotka käsittelevät ruoan verkkokauppaa, asiakaskokemusta, asiakasmatkaa ostoprosessissa ja palvelun laadun tuottamista.

Tutkimus on toteutettu laadullisena tutkimuksena, jonka tiedonkeruumenetelmänä käytettiin puolistrukturoituja haastatteluja. Tutkimukseen haastateltiin 14 henkilöä, joista seitsemän on käyttänyt ruoan verkkokauppaa ja seitsemän ei ole käyttänyt. Tällä tavoin saatiin laaja otanta tutkimukseen ja vastauksia tutkimuskysymykseen. Aineiston analysoinnissa käytettiin teemoitettua tapaa selkeyttämään analysointia.

Tutkimuksen löydökset vahvistavat aiempien tutkimusten tuloksia ja tuovat esille useita kehityskohteita, kuten käyttöliittymän ja hakutoiminnon kehittäminen sekä laajennetut ja joustavat toimitusvaihtoehdot. Lisäksi tutkimus osoitti uusia kehityskohteita, kuten reaaliaikaisen varastosaldon ilmoittaminen kauppa-alustalla, tekoälyn hyödyntäminen ostosten teossa sekä luotettavuuden kasvattaminen kylmäketjun hallinnassa.

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**KEYWORDS:** Service Business, Service Design, Electronic Commerce, Consumer behaviour, Development strategies

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**ABSTRACT:**

Grocery stores have changed their service design, offering customers the opportunity to order food online, while bringing flexibility and convenience to people's everyday lives. The coronavirus pandemic enhanced the development of online food shopping, positively affecting the shopping experience and offering a more efficient and safer alternative, and since then it has become a part of many users' everyday lives. The continuous development of service design requires a deep understanding of the customer experience and the implementation of necessary improvement measures towards an even better service. However, there are still customers who have never ordered food online, which creates the basis for this study.

The aim of the study is to determine what barriers and factors causing dissatisfaction prevent customers from ordering food from an online store. In addition, the study aims to find out from customers who already use the online store and have experience of the entire purchasing process from start to finish, what areas for development they see in the service. The theoretical framework of the study is based on previous studies and theories that deal with online food shopping, customer experience, the customer journey in the purchasing process and the production of service quality.

The study was conducted as a qualitative study, with semi-structured interviews as the data collection method. 14 people were interviewed for the study, seven of whom have used online food shopping and seven have not. In this way, a broad sample was obtained for the study and answers to the research question were obtained. A thematic approach was used in the analysis of the data to clarify the analysis.

The findings of the study confirm the results of previous studies and highlight several areas for development, such as improving the user interface and search functionality as well as expanding and making delivery options more flexible. In addition, the study identified new areas for development, such as reporting real-time inventory balances on the trading platform, utilizing artificial intelligence in shopping process, and increasing reliability in cold chain management.

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**KEYWORDS:** Service Business, Service Design, Electronic Commerce, Consumer behaviour, Development strategies

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## Abbreviations

SERVQUAL	Service Quality
ECSI	European Customer Satisfaction Index
NPS	Net Promoter Score

## 1 Introduction

Online grocery shopping has revolutionized how people purchase everyday groceries by providing flexibility and convenience. According to Brand et al. (2020), online grocery shopping is a service offered by retailers that allows consumers to buy groceries online through click-and-collect or home delivery services. The COVID-19 pandemic forced people to buy their groceries online, left its footprint on consumer behavior, and created a new trend by giving a safer and more efficient way to purchase everyday groceries (Morgan, B. 2020; Pan et al., 2020; Pantano et al., 2020; Seth, 2020 & McKinsey & Company, 2020). Online grocery business was the one that benefitted the most since, during the pandemic, digitalization spiked and forced retailers to develop their services to offer them online (Pantano et al., 2020). It is a way that allows consumers not just to save time but also to have the possibility to get more comprehensive access to products and avoid crowded stores (Shopfood, 2024). Online grocery shopping offers flexibility, especially for busy parents and professionals, who can now shop for their groceries any time of the day (Shopfood, 2024).

According to a study by the American Heart Association (2024), customers can stay on a budget due to the possibility of checking out the lowest-price items, having information on the total price, and using electronic coupons. Additionally, online grocery shopping can even create healthier eating habits by reducing the impulsive purchases of unhealthy items (American Heart Association, 2024). The worth of the Finnish retail grocery business was roughly 22,9 billion euros in 2023, out of which online groceries accounted for 626 million euros, which was, for the second year in a row, 2.7 percent of sales (PTY, 2023). It states that online grocery stores have the potential to get an even more significant share of the total sales by developing their services for the consumer. Additionally, not only do retailers have the potential but to be profitable by offering such online services, retailers need to consider developing their services even further to gain a better customer experience (McKinsey & Company, 2024).

Several studies on online grocery shopping have investigated consumer purchase intentions, such as attitude, convenience, and perceived usefulness (Tyrväinen & Karjaluoto, 2022). The studies have also highlighted prior shopping experience, employment status, age, and education level. In contrast, access to the internet, income, fresh food quality, and food prices shape consumers' behavior toward online grocery shopping. (Wang, Y., & Zhang, X. 2018; Restrepo, 2024 & Olumekor et al. 2024). Furthermore, over the past two decades, the academic interest in online grocery shopping has shifted its focus on consumers' purchase intention, purchase decision, and post-purchase behavior (Springer, 2023; Ha and Harris, 2020 & Roggeveen and Sethuraman, 2020).

Although online grocery shopping is seen as convenient way of buying groceries, the online grocery market still faces several challenges, including service quality, customer satisfaction, and delivery reliability (Hurtig,2021). Meanwhile, retailers have difficulties of being profitable due to high operational costs, logistical complexities, and seamless online integration (Hurtig, 2021). Due to the prior studies and what those have explored, there is a need for a more detailed and practical understanding of why consumers are dissatisfied and unwilling to use online grocery services.

Hence, this study answers the call of O. Tyrvainen and H. Karjaluoto (2022), who states that "Our findings present determinants influencing online grocery purchase intentions. However, our results do not provide an answer to consumers' low satisfaction with online grocery services. It would be beneficial to examine the mechanisms behind dissatisfaction and the barriers to online grocery shopping adoption".

Therefore, this study aims to tap into this research opportunity by answering the following research question: How can online grocery shopping services be developed to reduce barriers and to improve consumer satisfaction? The study aims to find the needed actions for the development of the retailers through an empirical approach, specifically conducting interviews using qualitative methodology. The qualitative

method is used to collect data by a semi-structured interview of 14 participants. Seven interviewees currently use online grocery services to ensure diverse answers, and the other seven do not. This study will look at the online grocery shopping experience from the consumer perspective in Finland and aims to gather reasons why consumers are not adopting or are not satisfied with the services provided by online grocery retailers.

The contributions of this study are threefold. First, using relevant literature and a theoretical framework will provide a deeper understanding of online grocery shopping, customer experience, service quality, customer journey, and their linkage to positive customer experience and satisfaction. Second, the study will provide qualitative data on the findings from semi-structured interviews and show why consumers have a barrier to adopting online grocery shopping in their routine. Third, the study combines the theory and findings of similarities during the study. It will also provide managerial implications to what, in practice, retailers can do to develop their online services for consumers and, last, the study's limitations and suggestions for future research.

## 2 Online Grocery Shopping

### 2.1.1 Defining Online Grocery Shopping

Online grocery shopping has been defined in numerous ways in the research literature. Shroff et al. (2024) describe online grocery shopping as an online channel, where consumer purchase their grocery items for daily activities. Similarly, Alaime et al. (2020) describe online grocery shopping as "a way of purchasing food products using a web-based shopping service." Olumekor et al. (2024) define online grocery shopping as "purchasing groceries or food over the internet and then having these products delivered to consumer homes or these being picked up in a store or warehouse." Moreover, brand et al. (2020) define online grocery shopping as a service where consumers can select grocery items, choose home delivery or click-and-collect service, and then pay for the groceries from retailers' online stores. Most definitions highlight that online grocery is a service offered by retailers where consumers can do their everyday shopping without visiting a physical store to buy groceries or other household items.

Seo (2024) defines online grocery shopping as an e-commerce business where consumers can quickly and conveniently buy various household items, such as food items, and perishable products, such as vegetables, fruits, seafood, and dairy products. The convenience of online shopping not only saves time and effort but is a convenient way of purchasing various products with a single click and gives flexibility due to the possibility to shop 24/7 anytime and anywhere (Reema & Söderlund, 2019; Seo, 2024). Furthermore, the authors emphasize that online grocery shopping gives customers such as busy parents or professionals the flexibility when they do not have to follow the brick-and-mortar store opening times to do their grocery shopping and, for an additional fee, get the groceries delivered to their doorstep.

By using online grocery services, customers make healthier and better food choices (Valenčič et al., 2023). Additionally, Olumekor et al. (2024) and Pitts et al. (2018) state that shopping for groceries online encourages healthy eating habits since it reduces the possibility of impulsive buying unhealthy foods, which is common when shopping at brick-and-mortar stores. Moreover, a study by the American Heart Association (2024) found that customers make more informed choices and stick to their dietary goals when shopping for groceries online. Previous research indicates the health benefits of using online grocery stores to shop for groceries.

According to Tyrväinen and Karjaluoto (2019), it took some time for online grocery shopping to become popular. However, due to the COVID-19 pandemic, safety has not only forced people to use online services but has also changed people's shopping habits for good. However, despite the change in shopping habits, convenience, and healthiness mentioned before, it is still unclear if consumers are willing to prefer such a service from grocery stores or what causes them to instead go to brick-and-mortar stores rather than use online services to buy groceries.

### **2.1.2 Current Trends in Online Grocery Service Models**

Over the recent years, online grocery services have changed significantly due to technological innovations, customers' evolving expectations, and global disruptions such as the COVID-19 pandemic. For these reasons, the need for retailers to adopt new ways of providing services to their customers has become significant to not only create a competitive advantage but also improve turnover for the company.

One of the most remarkable developments in the online grocery industry was click-and-collect services (Galante et al., 2013). This model allows the customer to order groceries online and choose to pick up the grocery package themselves from the grocery store pick-up point for an additional fee. What Jara et al. (2018) list in their study as benefits of the click-and-collect service is that customers can create a shopping list, keep track of

their expenses, quickly search for grocery items, and easily access promotions. Milioti et al. (2020) states "Low income and cost-sensitive people are not prepared to pay unless it turns out that click and collect is for them the lowest cost delivery option, given that every kind of delivery incurs some kind of hidden cost. "

In addition to click-and-collect services, fast home delivery services have grown significantly as a regular demand in the online grocery markets. Chintagunta et al. (2012) state that "the last mile" delivery in online grocery shopping is probably the most significant obstacle since consumers want fast delivery but are unwilling to pay for the delivery fees. Another challenge that last-mile delivery brings is the food delivery itself due to the sensitivity to temperature, quality, and shelf life, which means that customers need to be at home at the time of the delivery to get the groceries to the fridge (Olsson et al., 2022). As an interesting example of a solution to this problem, online retailer Amazon developed delivery services where couriers have access to consumers' homes with just digital cameras and locks (Amazon, 2020).

In the online grocery industry, subscription-based delivery services have become a key trend from the customer's point of view. Wagner et al. (2021) state that in many industries, pay-per-usage charges, such as subscription-based pricing, have been a popular alternative. In the subscription delivery model, customers either pay a monthly fee or an annual fee for grocery delivery to their doorstep (Belavina et al., 2017). According to Steinhoff et al. (2016), the subscription model creates a sense of belonging and predictability and therefore increases customer loyalty. Forbes (2024) not only supports this view in their research but also lists subscription fatigue and pricing as the most significant challenges to ensure profit in this service model.

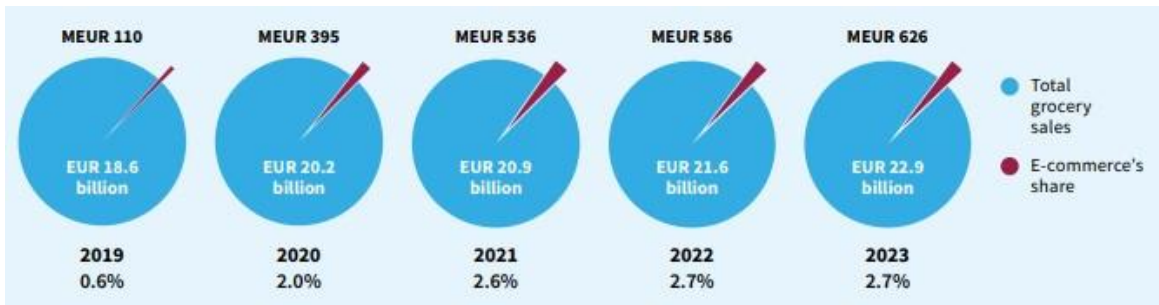
Moreover, the online grocery industry has been introduced by dark stores and micro-fulfillment centers to service customers with fast deliveries (Caggiano et al., 2024). Dark stores and micro-fulfillment centers are store-like warehouses that have only staff and vehicles to deliver groceries to the customer (Buldeo Rai et al., 2023). Depending on the

size, smaller dark stores are usually located in urban areas, and large dark stores are in industrial areas (Buldeo Rai et al., 2023 & Caggiano et al., 2024). Additionally, Grewal et al. (2017) state that factors linked to customer satisfaction, like accuracy in order fulfillment and product availability, can be improved by using dark stores.

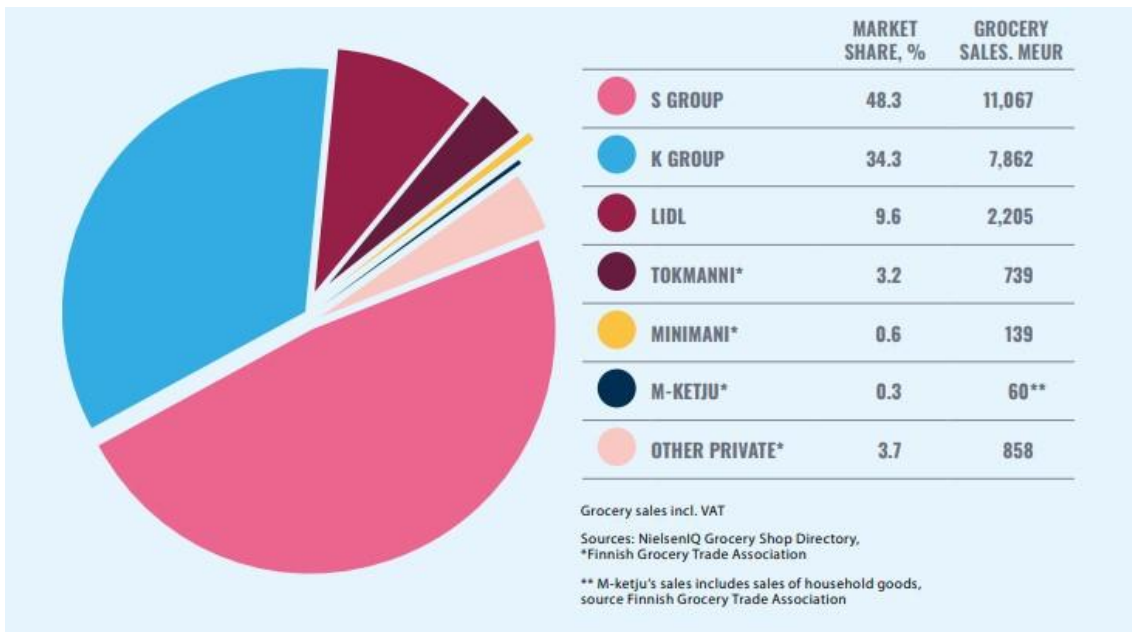
Generative AI (artificial intelligence) chatbots have been transforming online grocery shopping by providing customers help to provide recipes, find a specific product, or even a substitute for it (Wamba et al., 2023). Chakraborty et al. (2024) argues that AI chatbots can enhance customer satisfaction and loyalty when the customer gets assistance from chatbots in product selection, order placement, or addressing queries. Ramya et al. (2024) also state that AI optimizes customer experience by using customer data gathered by learning from the visitors' (customer) behavior in real-time. AI uses gained knowledge by showing relevant products to customers, maximizing sales for the retailer. In addition, Ramya et al. (2024) also argues that the key to increased conversions in online grocery shops is the personalization of what AI can provide.

### **2.1.3 Key Players in the Online Grocery Market in Finland**

According to the Finnish Grocery Trade Association (PTY), in 2023, the Finnish retail grocery business was worth roughly 22,9 billion euros. For the second year, online groceries accounted for 2,7% of sales (Figure 1), accounting for roughly 626 million euros. Key Players in the online grocery category were listed as the S-group, which takes the leading position, having 48,3% of the market share, and the second K-group, having 34,3% of the market share. Overall, the Finnish grocery market consists of several other retailers as well, but none of those hold 10% of the market share (Figure 2). This is the reason why the study concentrates only on the two key players in Finland's S- and K-group. (PTY,2023)



**Figure 1:** Value of online grocery sales (adapted from PTY, 2024)



**Figure 2:** Market shares listed of the Finnish Grocery retailers. (adapted from PTY, 2024)

S-groups cornerstones in their strategy were to create competitive advantage, customer benefit, improve performance, and therefore grow the business. That way, they would answer a call about the changes in trade and services, which force changes and developments in digitalization and international competition. According to the S-Group 2023 Annual report, S-group had invested 700 million euros in their online store, digitalization, and energy efficiency. S-group also announces in the annual report that the development work will continue in 2024 by taking a big leap in online store development by completing two automatic collection centers in HOK-Elanto and Pirkanmaa. S-Group does not describe any specific numbers but mentions that since they launched the new online grocery store Prisma.fi in January 2023 and made

developments in the first six months with customer feedback, their sales doubled in the second half of the year. Over 300 S-group stores now offer online grocery services all over Finland and are meeting their energy efficiency targets by offering emission-free online grocery deliveries with electricity robots in 43 stores. (S-Group, 2024)

According to K-groups 2023 annual report, their growth strategy is to focus on their grocery stores, construction, and building technology trade with main points to differentiate themselves from competitors by quality and customer experience in both brick-and-mortar stores and online stores. Digitalization goes hand-in-hand with customer experience, and their goal is to utilize digitalization to provide the best customer experience, enhance operations, and improve cost efficiency with this method. K-group also mentions that data, analytics, AI, and automation are the key activities that create customer value. In 2023, around 730 K-group grocery stores offered online services, and online grocery sales grew 5,7%, with around 249 million euros, of which 70% were delivered through home delivery services. Click-and-collect service has increased over time, and over 178 stores offer that service. Customer satisfaction rate was at a high level of over 80 out of 100. K-group also has its automated MFC-collecting system in K-Citymarket Ruoholahti, which provides even faster deliveries and covers a more significant volume of the demand, providing a better customer experience. K-group cooperates with food delivery service company Wolt to offer express deliveries for their customers, and in 2023, over 300 stores offered the service, and customers now get their delivery approximately in 34 minutes. (K-group, 2024)

#### **2.1.4 Challenges Facing Online Grocery Retailers**

Even though online grocery shopping globally is on the rise, the service model faces several challenges, such as profitability and customer satisfaction (McKinsey & Co, 2023; HBR, 2024). Although S- and K-group both announced that the sales of their online grocery stores are on the rise or have doubled in the last annual report, 2022, they still do not know if they have been profitable. A report by McKinsey & Co (2023) listed that

increasing food prices, inflation, and competitiveness would be the reasons for low revenue.

According to Harvard Business Review (2024), logistical complexities such as finding labor to collect the order is a challenge that takes approximately 30 minutes of retailer labor before it is ready for pickup from a customer or the home delivery stage. Olsson et al. (2021) describe last-mile delivery as a differentiation factor for retailers, which is important to customer experience and satisfaction. Also, in a study by Seidel (2021), interviews concluded, in addition to last-mile customer experience, that in-store collection and location of the warehouse were the key challenges that retailers face. Dannenberg et al. (2020) add the challenge of the cold chain and consumers' inability to see or touch the products they buy. Moreover, Mkansi et al. (2023) state that managing inventory, having professional staff, human errors such as picking the wrong products, logistical problems, and the quality and freshness of the products are the main challenges in the e-grocery business.

According to Tyrväinen and Karjaluo (2022), challenges that appear in online grocery retailers include ease of use, which consists of the complexity of choosing the product when a customer is browsing through an online store page with a large variety of products to choose from. Also, challenges with the website overall cause a bad shopping experience, and therefore, shoppers expect that the online grocery shop platform is easy and convenient to use (Singh, 2019). A simple homepage with an easy navigation system that helps customers find the desired item is the key to good customer experience and satisfaction (Rasmus & Nielsen, 2005).

Several studies show that the challenges mainly relate to operational topics such as logistics and user experience in the online platform. Vaja et al. (2025) also state, "Logistics and technological innovations play a critical role in shaping customer satisfaction and loyalty." Seidel (2021) points out that the challenge with operational

topics will be enhanced while sales volumes grow and online retailers start to see the point in improving this area in the process.

### **3 Customer Experience in Online Grocery Shopping**

#### **3.1.1 Defining Customer Experience in Online Services**

Several research papers highlight the positive customer experience as of vital importance in competitiveness, separation of competitors, and profitability (Kushwaha et al., Grewal et al., 2017; 2021; Olsson et al., 2022; Lemon et al., 2016). Therefore, since the rapid rise of e-commerce development, positive customer experience is seen as one of the main reasons for the success of the company, since unlike before, customers have a wide selection of alternatives for services and products to choose from (Olsson et al., 2022; Bolton et al., 2018; Jaziri, 2019). According to a study by Lemon et al. (2016) customers seek service brands who provide exceptional experiences and that it is critical for companies to understand customer experience and customer journey. Singh (2019) states that if customers' expectations are not met regarding benefits, they do not make repurchases or make and give recommendations to others.

Although the importance of customer experience has been recognized now, its importance was established long ago. According to Abbott (1955, p. 40), people desire satisfying experiences rather than products. In addition, the different researchers have broadly defined customer experience and what it means since then. Verhoef et al. (2009) describes customer experience as "holistic in nature and involves the customer's cognitive, affective, emotional, social and physical responses to the retailer". Similarly, Meyer et al. (2007) describes customer experience as "the internal and subjective response customers have to any direct or indirect contact with a company". Moreover, Gartner (2021) defines customer experience as "the customer's perceptions and related feelings caused by the one-off and cumulative effect of interactions with a supplier's employees, systems, channels or products". The definition of the customer experience concept has not always been clear. For instance, Palmer (2010) criticised the customer experience concept due to its difficulty. Despite the criticism and wide range of definitions of customer experience concept, all the authors have the common idea that

customer experience is an interaction between a company and its customers. Moreover, customer experience is explained to signify the emotions and feelings of the customers throughout all moments of contact and steps demonstrated below (Figure 3).



**Figure 3:** Customer Experience stages (adapted from Shaw & Ivens 2007, 23)

### 3.1.2 Factors Affecting Customer Experience in Online Grocery Shopping

Despite the stated fact in this study that online grocery shopping has grown rapidly, it still accounts for only 2.7% of the total grocery sales in Finland (PTY,2023). In addition, the Customer Experience has been stated to be one of the most important aspects of succeeding in online grocery services. Therefore, understanding the factors determining customer experience is crucial for retailers to develop their online services.

Aspects such as website layout, ease of use of the website, product selection, stock availability, product quality, customer service, privacy protection, and on-time delivery are elements that are essential parts of customer experience in online grocery shopping (Singh & Söderlund. 2020; Jaiswal et al., 2020; Sreeram et al., 2017). According to a study by Koronaki et al. (2023), a brand's online customer experience lies on the website since it represents the brand and creates impressions and information for the customer. Additionally, the key customer experience in online grocery shopping is customer service, which is a critical part of customer satisfaction (Singh et al., 2020; Jaiswal et al., 2020).

Jaiswal et al. (2020) also state that the most prominent determinants that form the customer experience, including customer service, are post-purchase experience, website personalization, product pricing, and discount availability. Post-purchase experience refers to the dimensions that the consumer gets after the purchase, such as the delivery of the purchase, and loyalty schemes, such as discounts or rewards (Jaiswal et al., 2020). Olsson et al. (2021) describe that the online-based customer experience has more risks than the traditional experience because customers cannot touch the products when ordering products from the website.

### **3.1.3 Barriers to the Adoption of Online Grocery Services**

While it is important to know the factors that affect customer experience to buy again from online grocery stores, the barriers that cause the consumer not to even buy for the first time from an online grocery store is crucial information to understand for the online grocery retailer. By understanding these and developing these aspects in the service throughout the customer journey, retailers have more opportunities to win customers to buy from their website.

According to Hand et al. (2009), situational factors such as developing health problems, getting a job, moving house, or having a baby can be a reason for starting to buy

groceries online, but once the initial trigger has disappeared, consumers are found to discontinue the service. Another reason for discontinuing the service is when a consumer has experienced a problem with the service, such as delivery problems or incorrect orders (Han et al., 2009). In addition, Sreeram et al. (2017) state in their study that the product's availability significantly impacts customer buying behavioral intention compared to any other aspect measured in the study. Additionally, product pricing, such as incredible deals, and social influence, such as word of mouth, positively impact consumer buying behavior (Green Atkins et al., 2011; Seeram et al., 2017).

Braun et al. (2024) state that factors influencing online grocery shopping adoption are Usefulness and ease of use, individual attitudes, perceived risks, social norms, and conditions such as age, gender, and experience. Musikavanhu et al. (2023) argue that the perceived cost was the most significant influence on adopting online grocery shopping. In contrast, other factors, such as perceived Usefulness, perceived risk, perceived image barrier, perceived ease of use, and social attractiveness, had an indirect influence.

Moreover, Braun et al. (2024) study showed that digital literacy, technology anxiety, and experiences hinder the adoption of online grocery services. Consumers were not willing to buy groceries online due to the lack of possibility to check the quality of the products, which correlates to the lack of trust in the product quality. Additionally, a lack of trust was also shown regarding data security and privacy, and the high price, high costs of delivery, and minimum order fee where the reasons why consumers were not willing to use online grocery services (Braun et al., 2024; Gupta et al., 2024). The location of the consumer, such as living in a rural area, limits the consumer's possibility to order groceries online initially. Other aspects that limit consumers' willingness to buy groceries online when living in a rural area are the limited delivery times, waiting for time for the delivery, and the risk that orders are not filled appropriately. In addition, sustainability aspects such as greenhouse gas emissions and packaging waste lead consumers to abandon online grocery services. (Braun et al. (2024)

### **3.1.4 Impact of Service Quality on Customer Satisfaction**

Service quality is one important aspect for a company to differentiate itself from competitors since it provides a competitive advantage when the company strives for customer satisfaction and improves it (Ladhari, 2009). According to Negi et al. (2009), Service quality is a subjective concept like beauty, and due to that, there is a challenge in defining it since everyone has their definition based on their personal experiences.

According to Schiffman and Kanuk (2004), customer satisfaction is "The individual's perception of the performance of the product or service about his or her expectations." Rita et al. (2019) argue that customer satisfaction impacts repurchase intention and customers' trust in the company and positively influences word-of-mouth. In addition, Torres and Kline (2013) found in their study that when customers are delighted, the customer satisfaction level goes higher, which occurs when customer expectations have been exceeded. Conversely, the study by Lim et al. (2020) showed that the cost of selling is lower when customer satisfaction is higher and direct savings on customer acquisition costs are lower.

If a customer is dissatisfied, it often leads to complaints. One of the typical ways to measure customer satisfaction is customer feedback through interviews and questionnaires. One used one is the SERVQUAL model, developed by Parasuraman et al. (1985). The model aims to draw conclusions about customer satisfaction rate and find the gaps between perceptions of service quality and expectations of the customer. According to Parasuraman et al. (1985), the five determinants of measuring service quality are reliability, tangibility, responsiveness, assurance, and empathy.

Reliability means the company's ability to perform the service as promised accurately and dependably, whereas tangibility refers to physical equipment, facilities, and the appearance of personnel. Responsiveness means company's customers service and their willingness to help their customers and provide good and prompt service, and

assurance means the company employees and their ability and knowledge to inspire trust and confidence to customers. Lastly, empathy refers to the company's care and attention given to customers. (Berry et al., 1990)

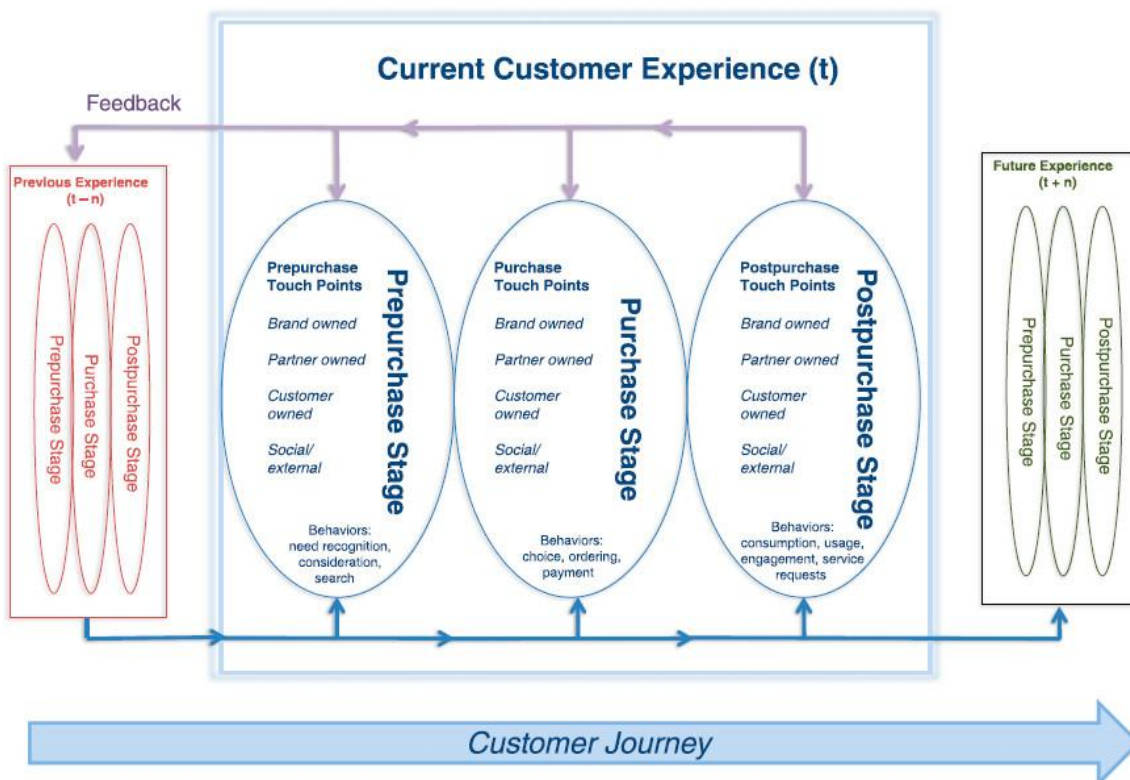
Another used questionnaire is the European Customer Satisfaction Index (ECSI) model, where correlations and consequences of customer satisfaction and loyalty are measured. The model observes the relations between the seven constructs: Image, expectations, perceived quality, value, satisfaction, and loyalty. According to Pinto et al. (2013), the ECSI model is flexible since it can be adjusted and adapted depending on the country and the sector. The ECSI model provides a detailed description of the processes underlying customer satisfaction, and with that, an organization can perform efficiently. (Pinto et al. 2013)

Another way of measuring customer satisfaction is through tool such as the Net Promoter Score (NPS), which calculates the result based on the percentage of promoters and critics of the company service quality (Biscaia et al., 2017). NPS is a proven metric tool that measures customers' willingness to recommend the service, product, and company to their friends, family, or colleagues. The 0 to 10 scale answers the question, "How likely would you recommend this organization/service to a friend or colleague?" where zero means not likely at all and 10 is extremely likely. The scale can be divided into three groups: detractors (0-6), passives (7-8) and promoters (9-10). (Reichheld, 2003)

### **3.1.5 Customer Journey Mapping in Online Grocery Shopping**

To understand the customer services of an organization, the customer journey mapping tool is appreciated as a helpful strategic management tool by many academics and practitioners (Rosenbaum et al., 2017). The customer journey is a set of touchpoints and interactions that lead to customer experience, representing the overall satisfaction and impression of the brand (Wavetec, 2024.). Rosenbaum et al. (2017) describe customer

journey mapping as a series of events in a visual representation where customers can be in contact with the company through the whole purchase process. Rana et al. (2022) highlight that to maintain customer loyalty, a positive customer journey experience is necessary for online retailing. Similarly, Lemon et al. (2016) argue that it is critical for firms to understand the customer experience and the customer journey. Moreover, (Lemon et al., 2016) state, "The increasing focus on customer experience arises because customers now interact with firms through myriad touch points in multiple channels and media, resulting in more complex customer journeys." Lemon et al. (2016) describe that the Customer journey can be divided into three phases: prepurchase, purchase, and post-purchase (Figure 4).



**Figure 4:** Customer Experience Journey Process Model (adapted from Lemon et al. 2016)

The prepurchase is the phase before the purchase, which includes the customer's interaction with the brand, category, and environment. Depending on which actions are included in the purchasing process, the line is thin between the prepurchase and

purchase phases. The prepurchase phase traditionally has been seen as behaviors such as recognition, search, and consideration. The purchase phase is described as behavior that includes choice, ordering, and payment. Especially in the retail environment, retailers need to consider affecting concepts in this phase, such as the shopping experience, overload of choices, and decision satisfaction. Lastly, the post-purchase phase is described as behaviors such as consumption, service request, and post-purchase engagement. This last stage, with the prepurchase phase, intertwines with the purchase phase but depends on the activities counted in the purchase process. Recently, the phase has been added with a loyalty loop phase, which suggests a trigger that the customer may get in the prepurchase phase that would lead to customer loyalty; therefore, in some cases, the customer would thereby exit the post-purchase phase and enter again into prepurchase phase (Lemon et al., 2016).

Customer experience touchpoints are included in three stages of the customer journey (Figure 2), which are divided into four categories: brand-owned, partner-owned, customer-owned, and social and external touchpoints. The customer can access these touchpoints at any of the three stages. Brand-owned touch points are interactions with customers that the company controls, such as social media, websites, marketing, price, packaging, service, and sales force. Partner-owned touch points are interactions by which the company or one of its partners has designed and is controlled. These can be difficult to differentiate from brand-owned touch points, but examples of partners are distribution partners and marketing agencies. Designing an app or a website can be designed by a brand itself, but it may need cooperation with partners such as marketing agencies for updates. Customer-owned touchpoints are the ones that the company cannot control. It is the overall customer experience that the company or its partners cannot influence and is most common in the post-purchase phase. Examples are YouTube, TikTok, or Instagram videos about the product, such as instructional videos. Lastly, social and external touch points result from feedback from other people or independent information sources that, once again, the company or their partner cannot influence. Customers are constantly surrounded by these touch points in the purchasing

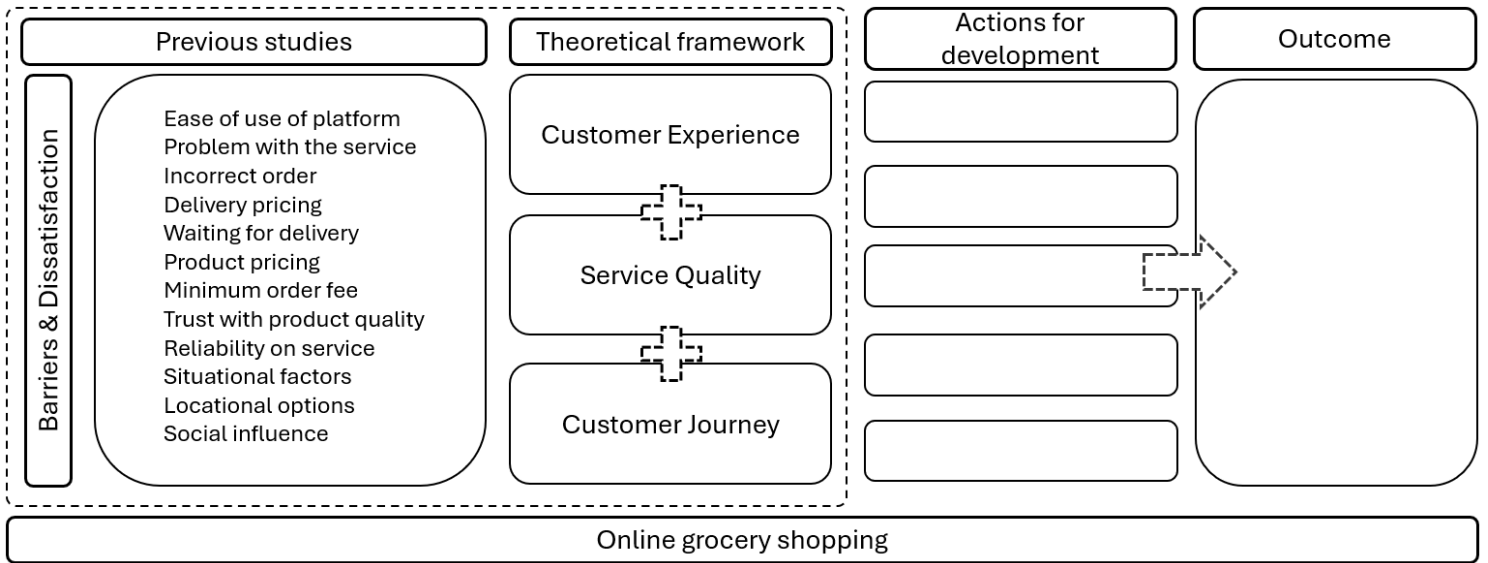
or post-purchase process, which may have a good or bad influence on the customer. (Lemon et al. (2016).

On the other hand, Aunkofer (2018) argues that Lemon et al.'s (2016) way of thinking about the customer journey, with its phases and touchpoints, is outdated. The Internet of Things (IoT) is the new way of thinking about customer journeys, which, according to Aunkofer (2018), is not a funnel-like process but more like a chaotic ecosystem since IoT generates diverse data that can be accessed quickly from anywhere and has an enormous effect on the customer journey. Customers want to have simple buying, usage, and maintenance through the whole product lifecycle, and companies have started to offer smart devices such as smartwatches and wash machines with a wide array of programs to ease customers' everyday lives. Therefore, companies should concentrate on lifelong customer relationships instead of individual touchpoints (Aunkofer, 2018).

### **3.2 Theoretical framework**

Theoretical framework of this study consists of relevant literature providing deeper understanding of online grocery shopping, customer experience, customer journey, and service quality. To develop services in the online grocery business, it is important to acknowledge the factors that make customers adopt online grocery shopping as their new way of buying groceries.

To achieve the best possible outcomes for online grocery retailers, this study identifies several practical implications for improving customer experience and overcoming barriers to adoption. Combining the insights of online grocery shopping, customer experience, service quality, and customer journey with empirical research gathered through interviews, this study offers practical guidelines for leaders and organizations developing their online grocery services (Figure 5).



**Figure 5:** The theoretical framework of the study.

## **4 Methods**

This chapter presents the research material, and the research methods used in the study which is divided into five subsections. In the first subsection, I review the method used in the study followed by presenting the research material and its implementation. Lastly, I review the method used to analyze the material and reflect on the reliability of the study.

### **4.1 Research approach**

This study is qualitative research, since the aim is to understand customers' experience and attitude toward online grocery shopping. According to Tuomi and Sarajärvi (2018), qualitative research is well chosen for this type of study because it aims to understand individuals' experiences and interpretations, since it enables the examination of the diversity and meaning of phenomena from the participants' perspectives. In addition, researchers can adapt the research process when new observations arise from the data, which is essential when studying complex and subjective phenomena (Hirsjärvi & Hurme, 2022).

The phenomenological approach was chosen within the qualitative research approach. Phenomenology focuses on understanding individuals' experience and their meaning and seeks to describe how people experience certain phenomena (Perttula, 2008). This research examines people and their experiences and how these individuals form their experiences towards online grocery shopping, providing opinions and developing ideas towards online grocery services.

### **4.2 Themed interview as a research method**

The themed interview is based on predefined themes that lead the interview but still leaves space for interviewees' thoughts (Hirsjärvi & Hurme, 2022). In addition, a themed interview suits the study well when the aim is to understand customers', organizations',

or other stakeholders' experiences, attitudes, and behaviors (Eriksson & Kovalainen, 2016).

Since the research method does not follow a defined list of questions, the course of the interview is determined by the situation, which allows for exploring deeper meanings behind the interviewee's answers (Hirsjärvi & Hurme, 2022). According to Silverman (2021), this approach to this research is helpful since it provides a deeper understanding of the factors that influence consumers' buying behavior.

Interviewers' task in themed interviews is to guide the conversations so that the main themes of the research are processed, but at the same time, space is given to interviewees free expression (Kvale & Brinkmann, 2009). This approach to the research highlights the researchers' and interviewees' interaction skills and atmosphere of trust.

Even though themed interviews give deep and diverse answer data, they have challenges. According to Kvale and Brinkmann (2009), the subjectivity of the interview situation and interviewers' role as data collectors might affect the reliability of the data. Therefore, the interviewer must be skillful in creating and formatting the list of questions and, in addition, listening to the interviewee with the knowledge of their preconceptions and their impact on the research (Silverman, 2021).

### **4.3 Data collection**

The research data were collected through semi-structured interviews with 14 people, seven of whom are using online grocery services, and the other seven do not. Interview questions were based on pre-prepared themes according to the study's theory framework and related to customer experience, views, and expectations of online grocery shopping services.

The research aims to investigate and understand the reasons or obstacles that cause consumers not to use online grocery services and vice versa. That answers the research question "How can online grocery shopping services be developed to reduce barriers and improve consumer satisfaction?" Interviewees were chosen purposely so that the interviewees were as diverse as possible, and half of the interviewees were using online grocery services, while the rest were not. Therefore, the semi-structured interview questions were formulated according to whether the person used the online grocery services.

Interviews were done anonymously over the phone and face-to-face, and the interviews lasted from 35 minutes to 60 minutes. The interview aimed to have an open conversation and atmosphere with the interviewee, which was accomplished by telling them about the aim of the study and how their answers would be used. In addition, interviewees were told that there are no right or wrong answers and that their honest opinions, thoughts, and experiences are genuinely welcome. After the interview, the recorded data was transcribed and analyzed.

Interviewee	Uses online grocery services	Age	Gender	Size of Household	Employment status	Residency
A	No	33	W	2	Employed	Vaasa
B	No	32	W	2	Employed	Vaasa
C	No	61	W	2	Retired	Oulu
D	No	28	W	2	Employed	Kittilä
E	No	30	W	2	Employed	Helsinki
F	No	31	W	5	Student	Pori
G	No	29	W	4	Employed	Turku
H	Yes	34	W	3	Employed	Vaasa

I	Yes	34	W	4	Employed/ maternity leave	Vaasa
J	Yes	30	W	1	Unemployed	Heinola
K	Yes	38	W	3	Employed	Kontiola hti
L	Yes	50	W	2	Employed	Oulu
M	Yes	34	W	5	Employed	Helsinki
N	Yes	43	W	4	Employed	Vaasa

**Table 1 Interviewed persons for the research**

#### **4.4 Data analysis**

The data was analyzed using the thematic analysis method since it helps to structure the data and makes drawing conclusions easier for the researcher (Tuomi & Sarajärvi, 2018). The theory part of the study concludes that the whole customer experience is created through every step of the shopping process and is the sum of many factors. Therefore, in the data analysis, the entire customer journey and its steps were considered and handled by their themes, aiming to find similarities between interview answers.

In the empirical part of the study, the answers were analyzed as a whole, and some individual responses were directly quoted to support the results since quotes create credibility for the research and clarify it. In addition, the interviewees' voices were accurately represented, and their perspectives and experiences regarding online grocery shopping were given a deeper understanding.

The study's theoretical framework was used to analyze interview answers on their experience in online grocery shopping, focusing on why they use or do not use the services. With the comprehensive and diverse answers of 14 interviewees, the answer to the research question was gathered from the customer experience point of view, as

well as what the retailers are missing in their online grocery services and what they could do to develop the services.

#### **4.5 The assessment of the quality of the data**

Reliability assessment of qualitative research covers the entire process from start to finish, in which the role of the researcher is central. Therefore, assessing reliability using various criteria is essential in the research. Qualitative research uses several criteria to determine reliability, such as credibility, transferability, adherence, and confirmability (Eriksson & Kovalainen, 2016).

Credibility refers to how well the researcher's interpretations match the subjects' experiences. It is important that the interpretations are consistent and based on the interviewees' own stories. Credibility must also be convincing from the reader's perspective so that the research results are perceived as reliable (Eriksson & Kovalainen, 2016).

Transferability refers to how well the study's findings can be generalized and applied to other contexts (Eriksson & Kovalainen, 2016). Interviews provide a deep understanding of the interviewees' experiences and opinions, and these findings can be used more broadly, for example, to improve the customer experience of online stores by developing the services and customer journey steps throughout the process

Coherence and confirmability refer to how well the research results are connected to previous theory and that the interpretations are well-founded. This helps to ensure that the research conclusions are clear and understandable to the reader. However, it should be noted that research on the topic has been limited, which may make it difficult to accurately link the results to a specific theory (Eriksson & Kovalainen, 2016).

## 5 Findings

This chapter presents the results of the study. The results from 14 thematic interviews are interpreted according to the previously presented framework. The study aimed to identify the overall experiences of online grocery shopping and the barriers and dissatisfactions towards using the online grocery service. When choosing interviewees, they were asked if they were using online grocery shopping services, and the interview questions were asked based on the answer.

The interviewees who were using the online grocery services were asked more about the service, how they were satisfied with it, and how services could be developed so that they would always buy groceries online, and not visit the store anymore. In addition, the interviewees who were not using online grocery services were asked questions with a concentration on finding why they do not use them and what barriers prevent them from using them.

### 5.1 Online Grocery Shopping

The interview findings amongst the interviewees who use the online grocery services indicate that online grocery shopping is an easy and efficient way of buying groceries. Interviewees like the possibility of choosing the items in their phase from the application and can choose either a pick-and-collect service or a home delivery service. They also felt that by buying groceries online, they are less likely to buy anything else out of the shopping list, what would they do when visit at the store, such as unhealthy food items or other impulsive purchases.

*"Easiness, there is no need to carry the shopping yourself, I can buy more at once, I know how much the shopping will cost before checkout, no need to collect the shopping yourself, I see the offers and selection easier, which is then easier to compare different products and their prices." (Interviewee J)*

*“Time saving, ease, speed, money saving, and there won't be as many impulsive purchases.” (Interviewee K)*

*“Time saving, large purchases are easy to handle, and no need to look for products in the store yourself” (Interviewee M)*

Most of the interviewees shops groceries online once a week and visits store only for something which they might have forgotten to buy, or if there is a sudden need for some item throughout the week. The most important part seemed to be for the interviewees that when buying groceries online they have more time to do other things.

*“I always buy a lot of groceries at once, and often also detergents and other hygiene products. I buy larger quantities at once so that I don't have to fill the cupboards often and have time for other things.” (Interviewee N)*

*“We order a basic weekly grocery delivery once a week, the same base but with different possible additions. We might go and buy something separately for the weekend.” (Interviewee H)*

*“There's always something missing or there might be an offer, which I then go and get from the store.” (Interviewee L)*

In addition, Interviewees L, I, and N mentioned that COVID-19 triggered them to start buying groceries online. Interviewee J stands out by explaining that anxiety and panic attacks are the reasons why people want to shop online instead of going to the physical store.

*“I started using online food services during the corona period and liked the service so much that I still use it.” (interviewee L)*

*“Having my first child born prematurely during the coronavirus pandemic meant that I didn't want to spend any more time in stores than I had to. That's why I liked the ease of the service, either delivered to my home or picked up ready-made from the store.”* (Interviewee I)

*“I found the online service during the corona period, I thought I would try it a few times, but the service turned out to be very convenient and easy to use, so I continued using it. I like being able to collect the products in the basket at home and the payment is conveniently made from the account. All you have to do is pick them up from the store cupboard. You can quickly continue with your other expenses.”* (Interviewee N)

*“Since I have a fear of social situations and suffer from anxiety and panic attacks, I prefer to shop online. I don't like going to stores. I do 90% of my shopping online and 10% in stores. If I have to shop in a store, I prefer to ask my boyfriend to go there for me while I shop there myself.”* (Interviewee J)

### **5.1.1 Online Grocery Shopping Service Models**

All seven interviewees who orders groceries online are using pick-and-collect services as the main way of buying groceries online, but in some situations, they have ordered food with home delivery service if that is available in their home region. As interviewees explained this being a way of avoiding high home delivery costs by collecting the groceries at the same time when they are already driving near by for instance when driving back to home from work.

*“I usually choose pick-and-collect on Friday so that I can pick up my groceries after work on the same route I drive home.”* (Interviewee H)

*“I think the delivery fee is too expensive to my home, so I pick up the groceries once they are ready for pick up, but usually I pick them up at the same time when driving back home from work or practice.” (Interviewee N)*

Most of the 14 interviewees had something to say about artificial intelligence and how they would see it helping them to make their grocery shopping online easier and even more efficient. Currently, artificial intelligence is not used in the online grocery stores in Finland according to interviewees. The interviews highlighted that artificial intelligence could help them to make a weekly food plan according to their wishes of recipes and could suggest other recipes to try out based on their shopping habits. In addition, artificial intelligence could find better suitable products based on diet plan, such as low fat and sugar items and make comparison between food items. What Interviewee A mentions that artificial intelligence could formulate a shopping list with recipes and their calories, and act like a personal trainer.

*“AI could do anything for me. A ready-made shopping list with recipes, telling me how many calories are in food. It could act as my personal trainer when it comes to diet!” (Interviewee A)*

*“It would be great if AI could make a menu for me and suggest recipes, because I often have trouble figuring out what new food to try.” (interviewee B)*

*“Well, it could help with budgeting and finding affordable recipes and ingredients” (Interviewee F)*

*“For example, AI could suggest ideas for new dishes that I haven't tried yet.  
“(Interviewee H)*

*“AI could make a shopping list based on my budget and based on that; even create dishes I can make at home.” (Interviewee J)*

*“Actually, I would love that AI could do the comparison for me and give me a list of products that are low in fat and sugar. I hate to try to figure this out by myself” (Interviewee N)*

### **5.1.2 Customer Experience in Online Grocery Shopping**

The interview findings between the users of online grocery services show that the experience is vital for them to be satisfied with the services provided through online grocery services. They appreciate simple, easy to use mobile platform, which enables the smooth buying process without technical problems. Application and web page of the online store must work properly to keep customer buying groceries from the retailer. In addition, Interviewees mention that good customer service and trustworthy delivery are main aspects which effect on their satisfaction and the feel of service quality.

*“Yes, it's important when I order on mobile that the platform works and doesn't freeze.” (Interviewee H)*

*“I definitely wouldn't order again if every time I tried to order food online there was some problem with the website itself.” (Interviewee K)*

*“Once, one product was missing and I complained to customer service. After the complaint, the price of the item was refunded to the account, and I think the next order included a coffee package as a refund.” (Interviewee K)*

*“I have always received fresh products and with a long delivery date, I have even been called and asked when I am going to put the meat in the oven, and if the date is okay for me, so the service works.” (Interviewee N)*

*“Well, yes, I expect that when I order food online using a mobile app, I expect that the app is easy to use and works smoothly without problems or errors.”*

(Interviewee N)

The interview findings between the non-users of online grocery services show that although they are not using online grocery services, they have clear views on what a good customer experience means and why it is important. Their views emphasize the importance of good customer service, reasonable delivery fees, technology usability, and product selection.

*“I believe that good customer service is very important because that way, the customer will remain a customer of the store if they have had a good experience with the purchase, but in addition, delivery costs should be reasonable so that it lowers the threshold for ordering food online.”* (Interviewee A)

*“Good customer service, a good and easy-to-use online shopping platform and the breadth of the product range are important to me. And yes, of course, also the shipping costs.”* (Interviewee B)

*“A wide selection of products is one important factor for me. If I can't find everything easily in an online store, I won't buy from there and prefer to go there myself.”* (Interviewee E)

## **5.2 Challenges and Opportunities in Online Grocery Services**

### **5.2.1 Dissatisfaction to Online Grocery Services**

The interviewees, who use online grocery services, highlighted some areas of dissatisfaction. When asked if they were satisfied with the delivery options provided, meaning click-and-collect and home delivery, all seven interviewees were happy. However, the two interviewees I and J mentioned that it would be nice to have the possibility to

choose any day of the week for the home delivery, and that it would be possible to have the delivery from the nearest store, which would make the delivery cost less.

*“Home delivery is really good for people with limited mobility and the elderly, for example. The elderly are increasingly staying at home, which makes grocery store service really good. For families with children, pick-and-collect is definitely good, so you don't have to go to the store with small children, for example.”* (interviewee G)

*“I am happy with these delivery options, because I only use the click-and-collect service.”* (Interviewee N)

*“It would be nice if to our home area was delivered more often, as currently only KESKO delivers groceries once a week.”* (Interviewee I)

*“There is no Prisma in Heinola and home delivery comes all the way from Lahti. 19,90€ delivery is too expensive from there.”* (interviewee J)

Moreover, the interviewees who do not use the online grocery services want to choose the items on their own such as fresh foods to ensure the quality of their choosing.

*“I am skeptical about foods that require refrigeration. When I go to the store myself, I know for sure what temperature I took the product from, how long it has been there, and where, before it ends up in my fridge or freezer.”* (Interviewee D)

*“I don't like someone else choosing my fruits and vegetables for me. Discounts also influence my purchases a lot.”* (Interviewee C)

*“I like that I can choose meat and fish products and vegetables on my own. For example, I don't trust that I will get bananas the way I want them.” (Interviewee D)*

One common aspect such as finding and collecting grocery items to shopping list in online grocery stores was mentioned, which made both the users and non-users unsatisfied with the online grocery store platform. In addition, user interface of the mobile application was mentioned in several interviews as a development area.

*“When I tried the app, I was immediately annoyed by the effort it took to find and collect all the products on the shopping list in the app, and I couldn't continue shopping through the app.” (interviewee A)*

*“Once I opened the app, I almost went nuts because I did not want to start looking for products for my shopping list. After a minute of browsing, I felt the application is not easy to use so I just closed the application.” (Interviewee B)*

*“To me the application is too difficult to use. Too many things in small window of my smart phone.” (Interviewee F)*

*“It was difficult and time-consuming to find the products at first, but I just got used to it. One development idea would be to make the application easier and user friendly.” (Interviewee H)*

*“At first, it was a pain to get the products into the shopping cart with the search function and I even think the application could be even better when thinking about the deals and such.” (Interviewee I)*

*“At first it was difficult when you had to search for and collect your own products on the shopping list in the app. Thank goodness, I do not have to do it again at*

*least for the whole shopping list since it is now saved to my account.*  
 “(interviewee N)

## **5.2.2 Barriers to adopt Online Grocery Services**

The interviewees, who are not using online grocery services, highlighted common themes and barriers preventing them from using them. For example, Interviewees A, B, and E emphasize the importance of exercise and finding red-labeled products on sale, since those are not available at the online grocery shop.

*“I like to walk to the store since I live nearby. I get some exercise and watch the evening sales at the same time.”* (Interviewee A)

*“I like going to grocery store, because it gives me the steps I need for the day.”*  
 (interviewee B)

*“Making impulsive purchases in the fruit and vegetable section is easier in a store when the layout and other things are in place.”* (Interviewee E)

*“For the sake of exercise and I get to look at the red-labeled products at the same time. They usually also decide what to eat at home.”* (Interviewee G)

Interviewees E and G also mentioned that they like to visit the store to get inspiration and ideas for cooking that online grocery shops cannot offer. The interviews showed that they like to visit the grocery store to fiddle with the products and make impulsive purchases. To interviewee C, social interaction is a vital reason for going to the store.

*“Going to the store gives me inspiration for cooking. If I see new products, I often get ideas for dishes that I can't necessarily find online.”* (Interviewee G)

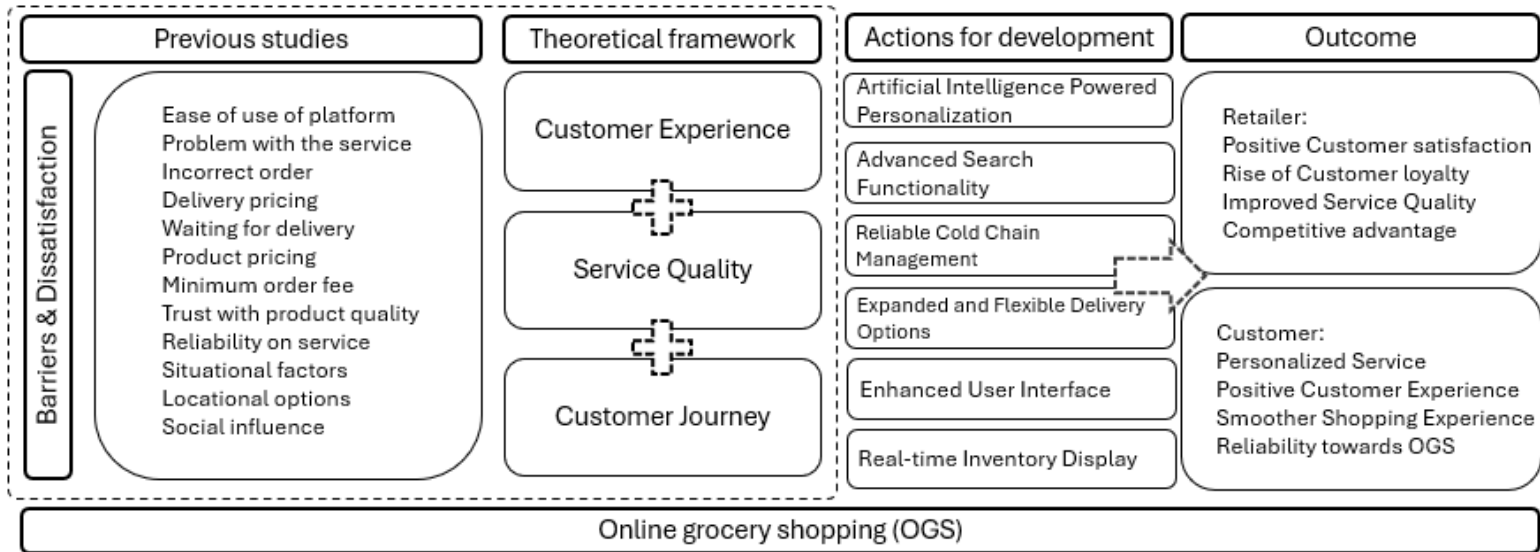
*"It's nice to walk around the store and then decide what to eat."* (Interviewee A)

*"I think it's nice to fiddle things in the store and make impulsive purchases."* (Interviewee B)

*"I like going to the store because it's more social. It's nice to exchange a few words with the salesperson."* (Interviewee D)

### **5.3 Summary of the key findings and the revised framework**

Figure 6 presents the theoretical framework with the added empirical findings of the action points that the online grocery store retailer must consider when developing their online grocery services to create a greater customer experience and satisfaction in online grocery shopping. Five main action points were found after analyzing the 14 interviews of non-users and users of online grocery stores. These action points are artificial intelligence-powered personalization, advanced search functionality, reliable cold chain management, expanded and flexible delivery options, enhanced user interface, and real-time inventory display.



**Figure 6 Theoretical framework with empirical findings**

These five action points can improve and create a competitive advantage for the retailer in online grocery shopping. In addition, by using these action points, retailers can improve their customer service quality, customer loyalty, and customer satisfaction rate. From a customer's point of view, they get personalized service, a positive shopping experience, and an overall experience, and their reliability towards online grocery shopping rises.

## 6 Discussion

### 6.1.1 Theoretical contribution

Several studies have studied online grocery shopping. In the study of Tyrvainen and Karjaluoto (2021) one suggestion was highlighted for future research, and therefore, the study aimed to answer the research question “How can online grocery shopping services be developed to reduce barriers and improve consumer satisfaction?”. Several similarities were found when analysing the theory and empirical research data together, as well as five highlighted development actions that rose from the interviews. This research expands the knowledge of online grocery services. It offers a comprehensive understanding of the dissatisfaction and barriers that customers experience when buying groceries online or why they do not use the service

The research established that to improve customer experience it demands the retailer to consider improving their services such as developing the application or teaching customer of the process to gain reliability. What several studies supports this by explaining the positive customer experience is vital to gain competitive advantage and profitability and one of the main reasons for the success of a company (Kushwaha et al., Grewal et al., 2017; 2021; Olsson et al., 2022; Lemon et al., 2016; Bolton et al., 2018; Jaziri, 2019).

All the 14 interviewees highlighted that the ease of use of the platform is significantly important to continue to shop in the online grocery shop. Braun et al. (2024) explains this as a one of the factors influencing online grocery shopping adoption. In addition, almost all interviewees were welcoming artificial intelligence to help them with the online grocery shopping process. What several studies (Wamba et al., 2023; Chakraborty et al. 2024; Ramya et al. 2024) suggested that artificial intelligence could help customer by providing recipes and finding specific products, creating better customer satisfaction rate.

### **6.1.2 Managerial implications**

The study's findings show managers have several opportunities to improve their online grocery services for customers. First, developing online grocery platforms' search functionality and user interface enhances customer satisfaction by making the shopping process smooth and easier without any obstacles on the platform. In addition, when it is easier for customers to find the products they are searching for, it makes a positive shopping experience for them. When managers consider developing the application by providing real-time inventory displays underneath every product, it is easier for the customer to know if there is stock for the product or not. This stock transparency would reduce frustration and enhance trust in the online grocery service.

In addition, adding artificial intelligence to serve customers would improve the customer experience and create a competitive advantage since this is not yet used in Finland's online grocery stores. Artificial intelligence could make customers use even more time at the online store and buy more items, for example, when customers get advice on recipes. Artificial intelligence could help people on a specific diet, such as lactose-intolerant or gluten-free, or have dietary preferences, such as low-fat or sugar-free items. Finding the right products for them with artificial intelligence would ease their life, since it would take time to compare the items and find the right products at the physical store. Moreover, personalized recommendations for grocery items and recipes for the following week's shopping list would engage the customer even more in online grocery services, creating increased revenue.

Furthermore, expanded and more flexible delivery options for the customer could be a possible improvement to pursue, but taking into consideration that the prices of the deliveries should not be too high, since a high price for the delivery was one of the barriers for the customer to use the home delivery services. Managers develop the delivery services by providing a mass home delivery service, where the price of the

delivery goes lower if in a specific area range, enough customers order groceries for the same delivery day or time slot. Customers could also get real-time updates on their order, see where it is on the app on the mobile platform, and create transparency of the last-mile delivery. Non-users of online grocery services mentioned that they do not trust cold chain management regarding home delivery or pick-and-collect service. Here, managers must think about marketing and teaching the customer, for example, through marketing video, how the process goes from ordering to delivery, to gain trust that the cold chain management is under their control, and the customer has nothing to worry about.

### **6.1.3 Limitations of the study and suggestions for future research**

This study only examined 14 interviewees and their experiences with online grocery shopping. Seven of the interviewees used online grocery shopping as their main habit to buy groceries, and the other seven did not and visited the store to buy groceries. A broader number of interviews could have provided a wider sample to the study, and possibly new development areas for online grocery services could have been found. Additionally, the interviewees were all women; therefore, a wider and diverse age and gender distribution could have brought new points of view and opinions towards online grocery shopping. Thus, future research could have a wider sample of interviews, or the study could be made through a questionnaire. In addition, this study combined both the users and non-users of online grocery services, and therefore, future studies could concentrate on just the users, excluding non-users of online grocery services.

Moreover, future research could concentrate on one retailer and study customer satisfaction towards their application, the provided service, and the overall experience throughout the customer journey. For example, a test group for the application can be created, and the participants can be asked to purchase their groceries weekly. After receiving the package to their homes, they get either a questionnaire or are later interviewed about the whole process and asked for their experience with the service.

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## Appendices

### Appendix 1 Interview questions (using online grocery services)

#### Interview questions (1)

Age, Location, Status (e.g., employed, unemployed, student), and Household size

##### 1. Shopping habits

- Can you describe your typical grocery shopping habits?
- Do you usually shop online or in-store?
- How often do you shop online?
- If you also shop in-store, is there a specific reason for that?
- Which aspects of in-store shopping are more attractive than online shopping?
- Do you usually use click-and-collect or home delivery to deliver your food?
- Why did you start using an online grocery service?
- Are online grocery services better suited for certain purchases (e.g., large quantities, non-perishable items)? Why?

##### 2. Dissatisfaction/satisfaction with online grocery services

- What do you think of the delivery options available?
- Which aspects of the service have you been dissatisfied with?
- Were there any problems with product replacements or availability?
- How was the quality of the products, especially fresh products?
- Have you ever experienced delivery issues, such as delays or incorrect orders?
  - How did customer service handle these issues?
- How could the entire shopping experience (*from browsing to delivery*) be improved in your opinion?

##### 3. Customer expectations and overall experience

- What are your expectations when using an online grocery service? (e.g., fresh vegetables)
- Do you expect the same product selection and quality as in-store?

- How vital is a smooth and easy-to-use website or app?
- Has your experience met your expectations?
- How do delivery fees and costs affect your decision to buy food online?

#### **4. Suggestions for service improvement**

- What changes or improvements would make you more likely to use the online grocery service even more, or improve your shopping experience?
- How important does technology (e.g., real-time inventory updates, faster website/app performance) play in your decision to use online grocery services?
- What would need to change in the customer experience to make you a regular user of online grocery services (i.e., you would not use the store at all or very rarely)?

#### **5. Last questions**

- Is there anything else you want to share about your experiences or insights into online grocery shopping services?
- Could AI bring something more to the online grocery shopping service?

## **Appendix 2 Interview questions (not using online grocery services)**

### **Interview questions (2)**

#### **Age, Location, Status (e.g., employed, unemployed, student), and Household size**

##### **1. Shopping habits**

- Can you describe your typical grocery shopping habits?
- Do you usually shop online or in-store?
- How often do you shop in-store?
- Have you ever used an online grocery service?
  - What is the main reason for that?
- Which aspects of in-store shopping are more attractive than online shopping?
- Are online grocery services better suited for certain purchases? Why?

##### **2. Barriers to using online grocery shopping**

- What are the specific factors that prevent you from using online grocery shopping services?
- Do you have concerns about the security or privacy of online grocery shopping payments?
- What do you think about the available delivery options?

### **3. Customer expectations**

- What are your expectations if using an online grocery service?
- Do you expect the same product selection and quality as in-store?
- How vital is a smooth and easy-to-use website or app?
- How do delivery fees and costs affect your decision to buy food online?

### **5. Suggestions for service improvement**

- What changes or improvements would make you more likely to use the online grocery service even more, or improve your shopping experience?
- How important does technology (e.g., real-time inventory updates, faster website/app performance) play in your decision to use online grocery services?
- What would need to change in online grocery services to make you a regular user of online grocery services (i.e., you would not use the store at all or very rarely)?

### **6. Last questions**

- Is there anything else you want to share about your experiences or insights into online grocery shopping services?
- Could AI bring something more to the online grocery shopping service?