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Minna Stenius[i], Johanna Sillander[ii], Niklas Eriksson[iii]

Abstract

Online grocery shopping (OGS) got a significant boost from Covid-19 pandemic. While its share of the total grocery market is still small, its growth prospects are promising providing opportunities for many different types of service offerings and market actors. The aim of the present study was to create an understanding of the state of the online grocery industry and its outlook for the next 4-5 years in Finland. It also explores strategic choices and challenges for retailers, and customer-base related issues, as perceived by retailers. The study is conducted through a series of semi-structured interviews with experts on the Finnish online grocery market.

Keywords: online grocery shopping, state of the industry, Finnish market

1 INTRODUCTION

The market for online grocery got a significant boost from Covid-19 pandemic (Duffy et al., 2022; Eriksson & Stenius, 2020; Gruntkowski & Martinez, 2022; Habib & Hamadneh, 2021). What was at best a marginal business before, used by a small pocket of consumers, grew five-fold in Finland during the crisis (PTY, 2023). In 2022 some 30% of Finns reported that they had bought groceries online some time during Covid-19 (Karjaluoto, 2023). While the share of online grocery shopping (OGS) still represents only some 3% of the total grocery business in Finland, it is important to note that even a small percentage of a sizable business (€22+ bn in Finland; €2 trillion in Europe) (PTY, 2023; Global Data, 2023) is substantial and can be lucrative, especially against the backdrop of continuing attractive growth. McKinsey (2023) expects the online grocery market in Europe to double by 2030 and other sources corroborate these estimates (Grocery delivery

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– Europe, n.d.) even if the growth has slowed some in the aftermath of the acute Covid-19 crisis. The major grocers, K chain and S chain, in the country want to have a role in the online business in Finland. In addition, various new types of service offerings, such as meal-kit services, online grocery surplus retailers and quick commerce, have entered the market.

Combining the narrow operating margins of grocery business with the substantial capital expenditure required to handle OGS professionally, in particular investments in the logistics infrastructure and the development of the webstore, makes the otherwise lucrative opportunity risky (Eriksson & Stenius, 2023). Furthermore, the timing of such investments on an uncertain market is tricky. Understanding what drives the demand of OGS is important and therefore investigating predictors of online adoption has been the focus of a large number of studies (e.g. Bauerová & Klepek 2018; Driediger & Bhatiasevi 2019; Frank & Peschel, 2020). Convenience and time saving have been found to fuel adoption of online shopping (Berg & Henriksson, 2020; Seitz et al., 2017), even sustain it (Stenius & Eriksson, 2023a). Further predictors of OGS adoption are for instance positive attitudes (Anshu et al., 2022; Bezirgani & Lachapelle, 2021; Hansen et al., 2004), ease of use and perceived usefulness (Hui & Wan, 2009; Loketkrawee & Bratiasevi, 2018), relative advantage (Frank & Peschel, 2020; Verhoef & Langerak, 2001), subjective norms (Bezirgani & Lachapelle, 2021; Hansen et al., 2004; Hansen, 2008), and prior experience (Piroth et al., 2019). Among experienced shoppers assistance provided by the webshop is appreciated (Stenius & Eriksson, 2023a). Studies further suggest that household size (Brand et al., 2020; Eriksson & Stenius, 2022) and household earnings (Eriksson & Stenius, 2022; Van Droogenbroeck E. & Van Hove, L., 2017) are positively associated with adoption of OGS, whereas the findings on gender and age are mixed (Eriksson & Stenius, 2020). The health-related aspects of OGS are also of interest. A recent systematic review by Trude et al. (2022) suggests that OGS is associated with healthier food choices among low-income individuals. Pitts et al. (2017) are more cautious: their scoping review suggested that while impulse purchases tend to decline in OGS, healthy choices such as buying fresh produce may also decrease.

Consumer adoption of OGS is important, but not the only factor affecting the development of the market. New service offerings, better use of technology and customer data, including opportunities provided by AI, also mold the market. They bring in new features to OGS, thereby broadening consumer choice and influencing the attractiveness of these services. The competitive landscape changes and the strategic choices available for grocers and other market players are affected. How OGS will develop is not at all clear, and very little research has explored the perspectives of those who provide the services.

This study seeks to contribute to this gap on the Finnish market by turning to grocers and other market participants on the local market to gain their perspectives and perceptions on the future development, and its drivers and obstacles. This is accomplished through a series of expert interviews. More specifically the study seeks to (1) develop an understanding of the state of the online grocery industry and its outlook for the next 4-5 years in Finland, (2) explore strategic choices and challenges for retailers, and (3) identify customer-base related issues; as perceived by the interviewees. In this study the online grocery industry is defined broadly to include meal-kit delivery and other niche services as these services fulfill the same consumer need, the daily meal provision, and they compete of the same customers.

2 METHOD

The selected research approach was qualitative. The empirical study was conducted as a series of semi-structured expert interviews (n=6) as we sought to collect observations and perceptions of an uncertain market from those who have been involved in the development of the online grocery business in Finland for a reasonable amount of time and are in a position, where they are likely to be informed and versed with both trends and challenges. The study is grounded in realistic ontology and interpretivist epistemology.

2.1 Data collection and participants

The data was collected by a master's student in the International Business Management degree program at Arcada UAS through a series of six expert interviews with grocers and other service providers, including an industry expert, in Finland in the spring and fall of 2022. The interviews were conducted online, and they lasted between 35 and 56 minutes. The interviews were audiotaped and transcribed, initially by using Microsoft Word's transcription feature and then by the interviewer who checked the transcripts against the tapes and corrected them when necessary.

The sample included representatives from the two major grocers, the S and the K group, two representatives from meal-kit service providers, one representative for online surplus retailers, and an industry specialist, who was recommended by one of the other interviewees. The criteria for being considered an expert in this study was seniority and the strategic element in the interviewee's title. The expertise was verified in the first part of the interview by asking each interviewee to describe their experiences and roles in their respective businesses. Four of the interviewees were men and two were women. The interviewees and their positions are listed in Table 1.

Table 1. Participant codes, types of online business and position in the organization of the interviewees (n=6)

Participant code	Type of business	Position
P1	Grocery wholesale/retail	Director, digital services
P2	Grocery wholesale/retail	Director, digital services
P3	Meal-kit service	Marketing Director
P4	Meal-kit service	Managing Director
P5	Surplus retailer	Data and Analytics Director
P6	Exposure to many services	Industry specialist

2.2 Data analysis

Thematic analysis was performed on the transcribed interview data using an essentialist approach meaning that the interviewees' responses are assumed to reflect their actual perceptions and experiences. The analysis was performed in two steps. The first step was inductive meaning that there was no pre-existing coding frame, but the codes were iterated from the statements made by the respondents. This first step, of the thematic analysis, was conducted using Taguette (https://www.taguette.org/), a free and open-source tool for analyzing qualitative data. The same statement could express several different ideas and be coded with several first order codes. Then all statements belonging to a first order code were printed and re-read several times, and overlapping codes combined. The resulting first order codes were then organized further to larger themes, in accordance with the research questions, and when reasonable, organized hierarchically, using a mind-mapping application, Xmind (https://xmind.app/). The selected approach was commonsensical as the aim was not to comprise the data to distill overarching themes or build a theoretical model, but to organize the identified ideas such that a reasonable overview could be presented without losing important details or potential weak signals. Once the structure was created, the data was coded again to ensure that it was reasonable and that all ideas were captured under the themes.

3 FINDINGS AND DISCUSSION

The findings are organized into the three main themes: The state of the industry, retailer related challenges and choices, and customer base related concerns. These main themes are used as subheadings for the following chapters that report and discuss the findings. The organization of the findings is shown in Figure 1.

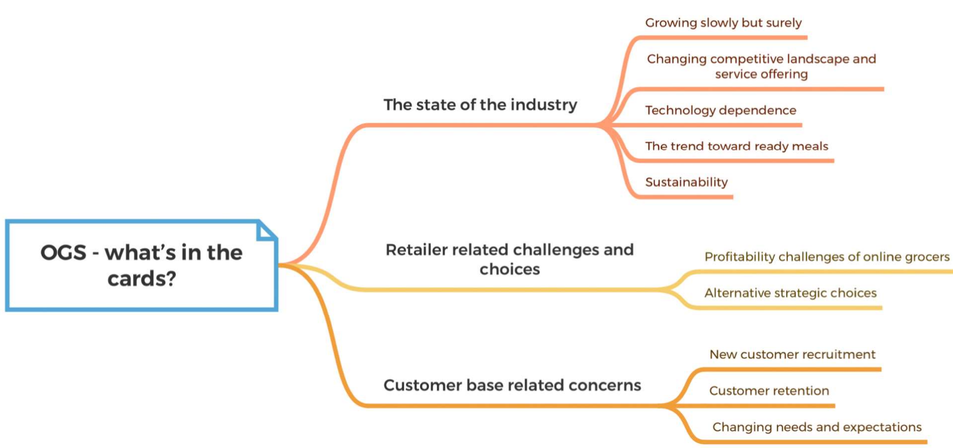

Figure 1. Findings organized under major themes

3.1 The state of the industry

The present state of online grocery shopping in Finland was described as (1) small and underdeveloped but growing steadily with good prospects and (2) changing in terms of the competitive landscape and growing service offering as new players enter the market. Further themes arising from the discussions related to (3) technology dependence as a fundamental change, (4) the trend toward ready meal provision, and (5) sustainability as an overall priority for grocery business.

All interviewees believe firmly that **(1) OGS, while still small, will continue to grow** and represent about 5% of the total grocery business in 4-5 years. Many pointed out that five years is a short time in this business, suggesting that the industry will change fundamentally but over a longer horizon. They, however, remarked that a small slice of a very large cake is already significant in monetary terms. Furthermore, there are regional differences, and the capital area may develop much faster than the rest of the country.

> *"it's not a question of whether it's gonna happen [shift to online] or not, it's a question of how fast and and what the new models will look like"P3*
>
> *"five years is a short time for the structures of the grocery trade to change" …"but every percent is 200 million euros and 5% is already a billion euros" … "this would imply in practice even in Finland some 10-15 million online purchases on a yearly level" P2*
>
> *"5 years is a pretty short time in grocery business"…"they are such large ships that they turn very slowly"… "we are probably around where Sweden is today [in 4-5 years] as regards the share of online, 5-6%" P6*
>
> *"5% of online grocery in the country probably means 10% in the capital area and 10% then already starts to play a really substantial role" P1*

The turbulent **(2) competitive landscape with many more new competitors and the growing service offering** are perceived as positive and benefiting all. As buying food online is a major change in consumer behavior, the more movers of the market there are, the better for all. Online and in-store are perceived as complementary, and the new services, such as meal-kits and take-away deliveries from restaurants, are seen as helping consumers try out new ways. These operators, referred to as slow and quick commerce by the interviewees, are presently marginal in terms of their market share, but they are important as they fuel the change and broaden the choice for consumers, thereby also benefiting the large grocers. Large international competitors are also expected to enter the market.

> *"I don't see them [online vs in-store] at all as mutually exclusive but rather as complementary" …"and the online is also not meant to replace in-store" P1*
>
> *"the more going on, the better it is for everyone" P3*
>
> *"[competition] is a good thing because then we educate the market such that one can choose between different options" P4*
>
> *"we will see a lot of new companies popping up"…"a very turbulent time ahead where new companies are taking over market share establishing themselves with new business models" P3*
>
> *"variation will emerge in this market"…"the offering diversifies enormously over the next years that it will be consumers' happy days if you like buying digitally" P2*
>
> *"all kinds of services emerge, they are the undergrowth, these meal-kits and Wolts etc who do some element and operate in a small scale but make money" P6*

Many suggest that grocery shopping will over time develop into some form of a hybrid, where the weekly (bulk) purchases online are complemented by some form of quick commerce or going to a physical store. These again might develop into delicacies, or stores specializing in the items that consumers often prefer to choose themselves. Large supermarkets could lose their present role in the long run. The authors speculate that they could be turned into hybrid stores, where some areas are dark and used for efficient picking of bulk items.

> *"probably be some sort of hybrid between online groceries [weekly shopping] and picking up your you know Friday snacks"P3*
>
> *"if you think about some forerunners like California, no one goes to [a store]"… "they go to delicacies or Wholefoods and everyone, who can, orders everything home" P4*
>
> *"you might order the boring bulk products in advance and pick up, and then walk in to the service desk to feel the atmosphere"P1*

A further theme that emerged from the discussions was **(3) technology dependence**. Grocery business changes fundamentally when the customer interacts with a website, which is then connected to the store's inventory management and other systems. While this offers enormous potential (e.g. wider reach; customization etc discussed later), it is a fundamental shift in the business making it highly dependent on functioning technology. This means that the knowledge base required to develop and run the business changes. While workforce shortage in itself is a concern, recruiting employees with the right tech skillset was a concern as all businesses, not just the grocery business, compete today over tech professionals.

> *"the international meal-kit companies are primarily technology companies"…"the data part is so important that the food part is almost like a byproduct" P4*
>
> *"…digital competence or webstore knowledge when all companies are recruiting them and in a way the battle over these individuals is how to get the best ones committed"P1*
>
> *"Tesco talked a lot about that for them the biggest challenge is that they compete with Google and Amazon over employees and of course in Finland we have game companies and others that you must compete with" P6*
>
> *"this business needs badly technology/data people who are few in comparison to how much work there is"…"the challenge is in a way in how traditional food companies for example can change into service companies where it happens in technology" P4*

The technology aspect also introduces new risks. Any addition, modification pricing change etc. in the offering to customers is subject to making that change in the technology first, meaning that the systems must be flexible and operate reliably. Other important issues related to technology are automatization of the picking function from dark stores and better utilization of customer data to customize the services. These will be discussed later in the text.

What came across in many ways in the discussions was **(4) the trend toward ready meals**, allowing many different types of offerings to pop up. The grocery and the restaurant businesses are approaching each other: restaurants by offering take-aways and delivering them to customers by using the quick delivery services, and grocery stores by offering a large range of convenience food, meal-boxes, and other ready-made food options. They are even contemplating cloud/dark/ghost kitchens which already exist elsewhere. Such kitchens could potentially offer a large repertoire of meals (from basic to fine dining), which would put them into direct competition with traditional restaurants.

"the rise of these cloud restaurants [elsewhere] where there's actually not even a restaurant but just a kitchen that makes the food and it's delivered straight to the customers"P3

"we [a meal-kit provider] intend to bring more ready food solutions, so that people would have them ready at home when this remote work has come to stay"P4

"and then different more ready solutions and these types of ready-to-eat type foods, they have grown terribly over the past years, people don't seem to appreciate the everyday cooking that much" P1

Lastly, **(5) sustainability** was an overarching priority for all businesses in the sample, not limited to the online business, but which was in many ways considered to advance it. The large grocers stressed that sustainability was an essential part of their strategy.

"It is such an essential part of our strategy that when a customer enters our stores, this is in itself a responsible choice." P1

In the online business they were concerned about the optimization of the delivery routes, hoping to use electric vehicles in the future, and delivery box waste. Utilizing the customer data to nudge customers toward more environmentally sound choices was also mentioned.

"the delivery routes are optimized"…"we are trying to get rid of the cardboard boxes"…"we are piloting with electric vehicles" P1

"from sustainability perspective the biggest impact comes absolutely if we can utilize the data to mold the eating habits so that they are more environmentally friendly" P2

They further pointed out that their webstore has ecological (footprint) counters so that customers can see the environmental impact of their food choices.

The business models of the niche producers rely on minimization of food waste. The meal-kit companies use quality ingredients and optimize their use thereby virtually producing no food waste. The surplus retailers make their business from selling food that is about to become waste. These niche operators either concentrate orders and deliveries to certain weekdays (meal-kits) or use warm deliveries such as regular parcel delivery services (surplus). Overall, the operations of the niche producers are optimized at every step.

3.2 Retailer related challenges and choices

Retailer related challenges and choices fall into (1) profitability challenges of online grocers and (2) alternative strategic choices against the backdrop of profitability challenges.

"the big thing that any grocery webstore worldwide battles with is profitability." P1

The concern is known to all and relates to the need for scale, already discussed in Introduction. As regards **(1) profitability challenges** of online grocers, the interviewees specifically brought up picking efficiency, delivery services, product range optimization and impulse purchases.

Picking efficiency. In-store picking, which is still the main form of collecting items to orders in grocery stores, was criticized by others as senseless but defended by the large grocers, who seem to have streamlined their picking processes.

> *"in-store picking has been used because you can do it without the big investments"..."in-store has been completely the right solution for us to get this, you know, growth" P1*
>
> *"the manual picking has been criticized in the public, a little unnecessarily, for the first you can make it quite efficient, really, and the other thing is that then you can serve the clients by offering a very large selection" P2*

Nevertheless, it ties up personnel and is not a viable solution for much longer, save for smaller stores. Investments in automation are, however, substantial and risky and therefore one alternative is to move the picking from the store to the storage space of the store.

> *"it takes investments, especially to make the item picking efficient, it requires large logistics centers to be built and the development of the services is expensive, too." P5*
>
> *"you gotta sell a lot of bananas to amortize the investment [into automated solutions]"P1*
>
> *"the picking may still be done from the premises, but not from the shelves but in the backspace of the store" P6*

It is possible that hypermarkets gradually lose their attraction when OGS becomes more common, and the large premises could be partly transformed into dark stores.

Delivery services (efficiency) is also a major concern. The online grocers have to offer speed and flexibility of delivery (of refrigerated goods) at low prices. Some cost control can be achieved through route optimization as long as the volumes are large enough.

> *"they [routes] are really optimized, for instance our delivery routes of home deliveries, at best we drop 5-6 orders, or on average we drop 5 to 6 orders per hour" P1*
>
> *"it's not in anyway profitable to bring just a few orders with cold transport" P5*

There is, however, pressure on delivery prices and service speed, not least because of the very popular quick commerce operators. Only a small proportion of online shoppers can plan their weekly purchases so that no additional purchases are needed and therefore there is an increasing need for fast deliveries of complementary purchases.

> *"the quick commerce companies are popping up like mushrooms but we see already that it's a very hard business to do successfully" P3*
>
> *"the quick food deliveries which we know from restaurants, its share is growing fast"..."we have also tested them and been surprised by how popular they are" P1*
>
> *"another market [apart from weekly deliveries] where we operate is complementary purchases, which is another big market" P2*

The industry specialist suggests that monthly or other plans could be offered to encourage regularity of online orders thereby ensuring the needed volumes and to give customers the flexibility (with no additional delivery costs) to complement their purchases.

"gradually these plans will come allowing the customer to make complementary purchases that the customer reserves, which is a big thing in the UK, a day, for instance every Monday at 8 and then it's free to order, they pay say £5 a month for this" P6

It is also still considered reasonable that customers pick up their orders from the stores. In less populated places the delivery may be impossible for the grocer to arrange viably but OGS can still add convenience and be an attractive mode for shopping for many.

A further consideration discussed had to do with ***product range optimization***. The big grocers seem to perceive OGS as an extension of their brick-and-mortar stores. They believe that the winning model is a combination of a brick-and-mortar store and a webstore, and an important part of it is the ability to offer a very large product range.

"If you look at any large online food market in the world, if we take for instance the Yanks or the Brits, or Sweden of the Nordic countries, so in practice in all of these the market leader is one that combines the B&M and the webstore" P1

"being able to offer the full product range online is a way to increase sales as you can reach a much larger group of customers [online]"P1

"[defending manual picking] then you can serve the clients by offering a very large selection, customers want to choose from a large product range" P2

The industry specialist was critical of this approach, suggesting that the grocers are tempted to view their webstore as the B&M store moved onto an online environment. By doing this they forgo any pricing flexibility and especially the option to optimize the product range online. The specialist argues that product range is overall a topic that is not discussed enough in grocery retail in Finland: when it comes to groceries, people tend to buy a lot of the same things, and a very large selection has little value added.

"The product range in the large hypermarkets has doubled in a very short time and in reality people buy more or less the same products"… "K-Citymarket has probably more brewery products than Lidl has products altogether." P6

"It would be possible to have a much smaller product range online and increase sales"… "and the stock turnover is much faster"…"It has enormous cost implications if the stock turnover is efficient" P6

One might add that with a smaller product range, the whole cost structure would change, and the webstore would be lighter and easier to manage and develop. Furthermore, item picking would be made more efficient, possibly delivery as well. With the data collected of purchases such product range optimization might not even be difficult, and most customers might not even notice, if done right. With the profitability pressures in mind and considering the very lean and optimized operations of the niche competitors, the views of the specialist seem acutely important.

A further profitability-related concern is the fate of ***impulse purchases***. In the store the customers are guided to walk through it in such a way that they are maximally exposed to active sales of high margin or new products. Grocers have accumulated knowledge of how products are placed, and how the best promotional spots are monetized, for decades. The game changes online and apart from letting customers use old shopping lists, there is today little active promotion, suggestions or reminders, or customization of promotional activities, that could fuel incremental sales online. This is expected to change. The emphasis has been on getting the infrastructure in place and running, and in the next phase the focus will move on to improving the customer interface and journey.

> *"what happens to candies and chips, they are in a very big role in the B&M because they have so much marketing money, they can buy all the best spots in the store" P6*
>
> *"now the focus has been on building an easy and functioning webshop model and the next steps are probably to think about how to for instance fuel impulse purchases, and add inspirational elements, there are certainly a lot of possibilities" P1*
>
> *"this [impulse purchases] is also the reason that the big chains are not very willing to move online because they know that these are the products with the best margin" P3*

A related aspect is that most people do not want to (or cannot) plan their shopping perfectly and regulate their eating habits fully. There is therefore a need for complementary purchases, which grocers are wise to understand and consider when developing their services.

> *"the impulsiveness, short span, of shoppers, the webshop should genuinely make it possible to order within a few hours, from a large enough selection, not too expensive" P6*
>
> *"there are these unplanned purchases"…"you have a movie night and you need candy and chips and pop or you have already begun to make a meal and you realize that you are out of olive oil, and you need to order fast in between your other chores" P1*

There are many aspects to impulsive shopping, ranging from encouraging impulse purchases by making the products visible and attractive, to the more natural inclination of consumers to not plan everyday chores perfectly, such as meal preparation. This results in the need for complementary purchases. The grocers are aware of these aspects, but they are not accommodating to them very well. This suggests that e-commerce, the business of selling online, is not well understood by the big grocers yet. Considering their dominant role in Finland, it is also possible that there is too little pressure on them to up their game.

The niche players have opted for **(2) alternative strategic choices.** Their business models are built to address all the main challenges discussed before.

The ***meal-kit services*** have very lean operations. They keep their fixed costs down and manage their variable costs efficiently. The order placements and deliveries are concentrated on certain weekdays giving them sufficient time to source the ingredients efficiently and optimized to orders. Many steps in the process, such as storing, packing and even deliveries, can be outsourced.

> *"we know by Wednesday how many boxes we've sold which gives us the week to like source the exact amounts of ingredients that we need per box which means that we don't really have any leftovers and this is how our business model differs from the others" P3*
>
> *"the big difference between us and if you take any big grocery store that they have thousands and thousands of different products whereas we have a very narrow selection" P3*
>
> *"we are profitable no matter if we sell like a couple of hundred or 10.000 boxes"…"it's very scalable and that again is due to the fact that we're very efficient" P3*

Meal-kit services are essentially in the business of selling professionally planned recipes (by chefs), including variation, that come with made-to-measure high-quality ingredients and instructions to those who are willing to pay for the convenience and quality this service offers.

> *"the difference is that we choose what foods we put in the box, and we do the planning, and we pack everything in the right amount for the recipes" P3*

> *"a team of chefs who do all the recipes so which means that during the same week we have one food with potatoes, one with pasta, one with rice and we differentiate also between different types of proteins" P3*

> *"our customers see the good price-quality ratio and we mean a lot to our loyal customers because our loyal customers order from us every week" P4*

> *"the customers see that the meal-kit is curated for them, that we have selected high quality ingredients for them" P4*

Because of the lean business model, meal-kit services can be very profitable and have a loyal customer base. In fact, the industry specialist pointed out that large food conglomerates are investing in them.

> *"large brands such as Nestlé and Unilever have invested quite a lot in these meal-kit companies" P6*

The other type of niche provider in the study, ***the online food surplus retailers***, buy in surplus batches of food and sell them at heavily discounted prices. They are the place to go for bargains, and that is their niche combined with a high profile in sustainability. They are online only, which implies that picking can be performed efficiently in-house, and they use the existing delivery network (e.g. the postal office) for their deliveries. This limits their selection to non-refrigerated items. They can keep the number of products at manageable levels even if they cannot affect the product range very much.

> *"We deliver our products with other online products, we use Matkahuolto and postal office network" P5*

> *"There will these batches in the future, too"…"we sell these batches and focus on them and those who are interested in reducing food waste and saving money" P5*

The business model of meal-kit services and surplus food retailers are different, and they target different market segments. What they have in common is tight cost control; they seek to optimize the entire process from sourcing to deliveries, and they optimize the product range. They also operate sustainably, which appeals to many customers today.

3.3 Customer-base related concerns

Customer base related concerns could be categorized into: (1) new customer recruitment, (2) customer retention, and (3) changing needs and expectations.

Concerns relating to **(1) new customer recruitment** have to do with distrust relating to perishable goods selection ("the avocado challenge"), getting customers to try the service, and perceived normative pressures. Deeply rooted grocery shopping habits were also a concern. As old habits also stand in the way of becoming a regular online shopper, they are discussed in the context of customer retention.

The biggest obstacle for new customers to consider OGS seriously might be the challenge of ***letting someone else pick the fresh goods*** for you. Grocers know this in Finland, and they take it into account.

> *"people say that I want to touch the avocado myself"…"I want to see myself how the meat is cut and if the filé is taken from the front or back or elsewhere, there are these attitudes" P2*

> *"you have to trust someone else to know, that we know better" P3*

Nevertheless, it is still a challenge to ***get customers to try out OGS*** to realize that their worry is unfounded.

> *"I have had the avocado challenge myself"…"now I have noticed that our pickers deliver much better avocados than I [would pick], and I trust it" P2*

> *"how are we going to get the customer you know, lure them to try our OGS"…"when we get the customers to try, they will commit pretty well to this service" P1*

One concrete onboarding opportunity was touched upon, namely promoting OGS when the customers need the service the most, ahead of big festivities like Christmas or graduation.

> *"[when consumers buy online] there are the three big Christmas, Easter and Midsummer because then you have to buy more and you are busy with other chores, and you make it easier, and another could be big celebrations [graduation]" P2*

It seems that there are also ***normative reasons that prevent*** customers from trying out OGS. Paying for someone else to do the daily grocery shopping is perceived as socially or culturally reprehensible, even our protestant ethics plausibly playing out on this, as customers feel the need to explain why they use OGS.

> *"why use such services and that I have five kids at home and can't go to the store or I have this broken leg that I would [otherwise] go the store" P1*

> *"maybe our culture is not so accepting when it comes to paying for this type of service"… "but in bigger cities we've made progress and it has become more acceptable" P1*

Themes related to **(2) customer retention** were the difficulty of changing habits, the importance of positive customer experience, and opportunities presented by customization.

The respondents stressed that shopping groceries is ***a habitual behavior*** and in addition to being an obstacle for trying out OGS, it is possibly the biggest obstacle for becoming a regular online shopper.

> *"people's routines are so deeply rooted" … "those in my age or older are so used to going to a store and when you've done that tens of thousands of times" P6*

> *"it is such a big routine change from a consumer's perspective" P1*

"is used to going to the corner shop and to buy your daily and weekly shopping, we are talking about so big a change to habits" P2

"maybe the biggest thing is getting people's mindset to change, grocery shopping is one of the most like automated habits that we have" R3

"[inside a supermarket you make your typical route] then you have to kind of change the whole way of thinking around food" R3

It is somewhat surprising how much the habit change as a serious challenge to OGS was emphasized by the respondents considering how little grocery or online grocery shopping routines have been investigated in research to date, apart from some exceptions (e.g. Stenius & Eriksson, 2023b). Not much was offered in the way of explicitly trying to change the routinization practices, but ***the importance of customer experience*** was understood as a prerequisite for any repeat business.

"if the first experiences are good the threshold might lower that people start using"…"more of them and then it starts to move"…"and then those good experiences that you order 30 products and you get 30 products, of good quality" P2

"The meeting at the customer's doorstep, because it's the only human interaction during the purchase process, so the interaction between the delivery person and the customer will be increasingly important" P1

"It should be as easy to use as possible and reliable, but one thing too, it should be inspiring and fuel impulsiveness"…"it should ease the everyday relating to meals" P1

"It should be really simple to get the products that you want" P6

However, it can take time for the benefits to become evident for the customers, which is also important to understand.

"customers start to get the best out of it after a few times of trying"…"it is first after a few times of using it that customers realize how the service can help their everyday" P4

One way to improve the customer experience and differentiate online from in-store shopping, would be by ***customizing the offering or services*** more to the preferences and needs of the customer (or a customer segment). This would be accomplished by combining data on customers with data on the products. Considering the amount of data already collected of the customers, and the possibility to simply ask the customers to specify their preferences (dietary, financial, carbon footprint or other), this would offer tremendous opportunities for online retailers to improve the customer journey and nurture commitment to the online service. Today this is still essentially unutilized, but it was brought up by the respondents in many ways.

"we still use quite little data in the beginning of the purchase process"…"but like I am allergic to nuts, so I could instruct that don't even show me anything with nuts" P2

"all kinds of personalized product recommendations on the basis of the purchase history"…"it could even recommend whole baskets based on purchase history" P5

"if I want to reduce my carbon footprint, it could suggest or it could build the whole interface so that it would recommend more ecological products, or suggest that I replace something in the basket to a product with a smaller carbon footprint" P1

"if I want to add 45% more veggies to my diet, it could support such a purchase mission"…"there is a lot in the data that we could use to benefit the consumer" P2

"the next phase is to start doing this online business on the basis of data and digi and lots of clever things will come"…"we can see your consumption cycle and we can automatically say that now you ought to order coffee because you are out soon" P2

It is reasonable to think that customization also advances many other goals or offers means to do so. When the service is tailored to needs and expectations, and the customer gets to participate in defining them, customer experience is bound to improve, and commitment strengthen. It also gives retailers lots of opportunities to suggest additional items – these need not be the traditional sweets to gratify impulses to indulge, but they may be ones that increase the value of the basket in a way that satisfies customer's real, for instance dietary, needs.

Customization of services to obvious groups, such as families with small children or people with physical hindrances (or no car), could be done, with very little data.

A further topic discussed was related to **(3) the changing needs and expectations**. Operating in a turbulent market, where new services pop up, affect the needs and raise the bar for customer expectations.

"the use of OGS will grow"…" for sure the customer needs so to say develop and become more versatile"P1

"the customer expects that if they get a large selection from one place and can from there easily get the favorites and good products and get them quickly home then they start to require this from the other services" P4

"when the international online services develop in a certain way, customers' bar rises and the expectations rise also as regards domestic services" P1

Also, their own personal experiences affect both the repurchase intentions and expectations of further survices, such as those that satisfy the more unplanned needs that require a faster delivery.

"If the first experiences are good then the threshold declines so that people start using them even more, it starts with the experiments and experiences and if all goes well that you order 30 items and get all 30 items and they were of good quality" P2

"there are these more unplanned and maybe more impulsive purchases and [you need] fast delivery that you might notice that you have a movie night coming up and you need candy and chips" P1

The options for putting a meal on the table have already multiplied (e.g. cooking from ingredients or meal kits, ordering ready food) and this has the potential to fundamentally change the conventions of grocery shopping. Consumers are increasingly trying out new services, which affects their expectations. Especially the large grocers are wise to acknowledge that there are many new takers of the wallet that has traditionally been theirs to share, and they need to keep up and use their strengths to respond to these challenges.

4 CONCLUSIONS

According to the study, the online food market is perceived as attractive and developing despite its present small size. All respondents welcome new competitors and new services, stressing that educating the marketplace benefits all. Furthermore, online and in-store shopping are perceived as complementary. The versatility of service offerings is increasing which may mean that in the broader field of meal provision, the grocery and restaurant businesses are nearing each other. This reflects an overall trend of consumers toward ready meals. Presently the large grocers focus on the clientele who make weekly purchases online. As most customers need to complement these, either from the store or by using some form of quick commerce, the large grocers also want to be in this business. Their major concern is how delivery and especially picking can be made efficient and any major investments into automation viable. There may be various solutions ranging from in-store picking to storage picking to fully automated dark stores. The successful niche service providers have already figured this out: they target a specific segment of the market with lean and optimized operations. This may be because they were from the beginning developed for the online environment.

While the focus of the large grocers has been on getting the webstore and the picking/delivery infrastructures up and running, the next priority is, or should be, on improving the customer journey. By utilizing the already substantial amounts of data collected on customer purchases, or preferences that customers themselves could opt for, customizing the offering to customer (or customer segment) needs is presumably the next step. This offers tremendous potential to add value to customers through added convenience but also by supporting their dietary preferences, and/or financial or other needs. Utilizing the affordances of e-commerce would also differentiate the service from in-store shopping, and create new ways to add value and attract customers. The main challenges with recruiting and retaining customers were perceived to be the existing deeply rooted shopping habits, distrust, and social norms against paying for such service.

An important concern raised by the industry specialist related to the large grocers' temptation to perceive of their online business as their brick-and-mortar operations moved online instead of utilizing opportunities for more flexible pricing and optimized product range. The extensive product range adds little value as customers tend to buy the same products but makes the operation heavy at every step. It seems that there are two distinct types of players on the online market. On the one hand, there are the niche operators who have optimized their operations and are profitable as well as scalable. On the other hand, there are the grocery chains who struggle with online profitability. This may be because they are trying to move their mammoth stores online and therefore have little resources left to develop the service. This resonates with the remark *"the biggest challenge is to prioritize; there are so many things we could do but we cannot do everything at the same time" P2*. This difficulty is associated with the more fundamental challenge of selling online: the business is technology dependent and requires also strategic knowledge of e-commerce. This knowledge is not abundantly available. Furthermore, the overall lack of appropriately skilled workforce to support the change was brought up by several respondents.

The study accomplished its aims and proved very informative. Nevertheless, its obvious limitation is that it reflects a small number of market participants' present views. This research is a work in progress and future studies could include an extended range of experts, adding experts, for example, from other Nordic countries. A Nordic dimension to the topic could provide valuable insights on differences between markets in a context where population density is quite low but e-commerce in general is largely adopted.

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