



**UNIVERSITY OF GOTHENBURG**  
**SCHOOL OF BUSINESS, ECONOMICS AND LAW**

**Living in a worldwide quarantine:**

*A social practice theory analysis of the grocery shopping  
change during Covid-19 crisis*

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# Abstract

This paper studies the practice of grocery shopping during a disaster outbreak, by examining the case of the Covid-19 pandemic. The research on how the grocery shopping is conducted during a disaster is scarce. Therefore, this qualitative study aims to contribute with knowledge to both the disaster management and grocery shopping fields by exploring how grocery shopping is carried out under restrictions and measures occurring during a disaster, and to identify what is changed. The practice theory approach is used to empirically explore and to conceptualize the process of practice change during the disruption of the normal everyday life. This qualitative study was performed in form of personal interviews, while additional research and observation of grocery stores were conducted to illustrate the ongoing situation. Thematic analysis was performed for the analysis of the data and the findings identified six different patterns in how the practice of grocery shopping is being changed during a disaster. The meaning of safety and the need to follow different guidelines are the most important factors to lead to changes in the performance of grocery shopping. Finally, the findings indicate that some of the changes in the grocery shopping practice will change back when the everyday life returns to normality.

Keywords: grocery shopping, disaster management, practice theory, everyday life, change

# Introduction

Grocery shopping is an integral part of the everyday life in the modern society. The visits to the grocery stores are conducted regularly according to Aylott and Mitchell (1998), including those who feel excitement and satisfaction when walking between the aisles full of colourful products and those who see it as a chore and would prefer to be doing something else instead. In fact, the grocery shopping is so deeply ingrained in the performance of our everyday tasks, that as mentioned by Ashley et al. (2004), the “shopping” verb itself is very often associated specifically with the activity of shopping food. Moreover, Jackson et al. (2006) note that the best way to explore the acquisition of grocery products is by studying how it is incorporated in the everyday routines and the household relations and habits, punctuating even more the highly routinised aspect of the grocery shopping. Consequently, the grocery shopping, being a routine practice, is affected to a great extent by how the consumers shop, where they shop, when and what they shop. But what happens during a time of crisis, when the consumers depart from their normality? The outbreak of the pandemic caused by Covid-19 disease in recent past, made the smooth performance of the society’s everyday practices to seem not as easy as before. Even though the existing studies on disasters and stressful situations are sometimes applied on the process of shopping (Aylott & Mitchell, 1998; Nilsson et al., 2017; Larsson & Shin, 2018), they mainly focus on the consumer behaviour or other individual’s perspectives, instead of focusing on the practice itself. In order to cover this gap, this paper will investigate the practice of grocery shopping as a routine practice that must be carried on during a critical situation.

Previously conducted studies on disasters and public health show that society’s and individual’s reactions to critical situations have been under researchers’ attention (Kohn et al., 2012; Levac et al., 2012). A big part of this literature agree that critical situations usually affect the normality of the everyday life and bring changes in how the individuals experience their routines (Houston et al., 2015a; Larson and Shin, 2018; Mcfarlane et al., 2006). More specifically, by critical situation, this paper refers to the period of time when the society and individuals experience pre-events, events or post-events of a disaster. Different literature describes the disaster as a collectively undergone traumatic event, including public health epidemics, pandemic flu outbreaks, natural disasters, fires and wars, which encompass human or material losses (Adelman and Legg, 2009; Houston et al., 2015a; Mcfarlane et al., 2006). Such a situation is the outbreak of the coronavirus disease (Covid-19), when on 11th March 2020 the World Health Organization (WHO) announced that our planet was going through a global pandemic (who, 2020a). This has brought changes and disturbances to individuals’ lives around the world, as entire societies and economies were affected.

According to various disaster researches, the critical situations usually cause stress to many individuals at the same time, disrupt the performance of the society’s everyday life and can bring social, economic and political aftereffects (Houston et al., 2015a; Mcfarlane et al., 2006). Indeed, due to lack of relevant previous experiences on such widespread pandemics in the modern world, the Covid-19 crisis provoked uncertainty, panic and some strict measures for the prevention of its further spread. Restrictions for traveling, limitations in mass gatherings and exhortation for home isolation as well as social distancing, are some of the actions promoted and applied by the WHO as well as the governments (who, 2020b).

As a result, normal everyday practices are not carried out in the same way anymore, because of people's distressed emotional conditions as well as the preventive restriction suggested by the authorities. One of these affected and disrupted practices is grocery shopping. Being carried out in the frame of social ordinary life, it is highly influenced by the change of rules required for the performance of social life during the disaster outbreak. Also, the media play a central role in providing information to the society, including both trustworthy and misleading information, which has a significant effect on how the individuals react. For example, one common reaction during disasters is described by the concept of preparedness, which includes different activities which help to face a threatening situation more effectively (Kohn et al., 2012), such as by buying food supplies. Thus, such individuals' reactions can lead to changes in their shopping behaviour and cause altered performance of grocery shopping.

The situation described above comes in contrast to how the practice of grocery shopping is normally carried on. Through the grocery shopping literature, it is described that the shoppers follow their unique patterns of shopping based on reasons deriving from their personalities, way of life or preferences (Reutterer & Teller, 2009; Nguyen et al., 2018; Nilsson et al., 2015). Also, the consumers normally perform grocery shopping as an important part of their everyday routine by visiting supermarkets on regular basis, as a chore (Aylott & Mitchell, 1998) or for fun (Aylott & Mitchell, 1998; Bridges & Florsheim, 2008). However, the Covid-19 crisis, has changed the normality of the society and instead of fun and expression of self, the consumers are restricted to rules and experience stress. Even if this situation leads the grocery shopping to be perceived as an unpleasant chore, because of the negativity it carries now, the performance of the practice cannot be interrupted as it covers individuals basic need for food and hygiene. The observation of the contrast between the normal grocery shopping practice and the disrupted one, could visualize new angles of the grocery shopping practice.

As mentioned before, there have been limited opportunities to investigate the consumers' performance of grocery shopping during a pandemic, given all the restrictions and psychological effects it might cause. There is a lack of studies through the grocery shopping literature focusing on the development and change of the grocery shopping practices under such circumstances. Additionally, even though in the disaster management literature the individuals and households are perceived as significant actors during a disaster outbreak (Heidenstrøm and Kvarnlöf, 2018; Levac et al., 2012), these studies mostly focus on the ability to get prepared and manage a crisis and do not pay a lot of attention on how the individuals continue to do their everyday practices, such as grocery shopping. Although the above studies generate interesting and useful results, they do not provide more detailed information about how consumers do their grocery shopping during a critical situation or a disaster. Therefore, to shed more light on such information, this study aims to obtain a deeper understanding of how the consumers carry out their grocery shopping practices when a disaster occurs. Specifically, the purpose of this study is to explore how grocery shopping is carried out under restrictions and measures occurring during a disaster, and to identify what has changed. To achieve the purpose of this study, the following research question is going to be answered: *How is the practice of grocery shopping disrupted and changed during an ongoing outbreak of a disaster?*

In order to answer this research question, the lens of practice theory is applied in this study and the practices synthesizing the grocery shopping are in focus instead of the individuals who perform them. As the critical situation has been proved to be central for the performance and change of the practice of grocery shopping, the practice theory promises to empirically explore and to conceptualize the process of practice change during a disruption of the normal everyday life (Halkier et.al, 2011). Based on this, the findings of this study will contribute to the fields of disaster management, grocery shopping and practice theory by covering the gap in the existing literature. Additionally the exploration of the grocery shopping as a practice is beneficial for grocery retailers in understanding customers' actions during a situation like this.

Finally, a qualitative study, in form of personal interviews, has been performed. The disaster focused in this particular research is the outbreak of the pandemic of the Covid-19 disease as it occurred in the beginning of 2020. However, it is necessary to delimitate the study because of the expansion of the phenomenon to a global level, which led to various approaches adopted by different countries. Thus, this research is focused on the population living in Sweden, meaning that the observed grocery shopping practices are conducted in the frames of the Swedish situation. In the next section of this study, a theoretical framework, including the comprehension of literature of grocery shopping, disaster management and practice theory, is developed. Thereafter, the use of the qualitative research for answering the research question is described and explained. Later, in the section of findings, the ongoing situation of Covid-19 in Sweden is portrayed, before presenting the analysed results about the changes of different aspects of the grocery shopping practice. Finally, the last chapter of this study discusses the findings and draws conclusions.

## Theoretical Framework.

### The concept of Grocery Shopping

Grocery shopping is a highly routinized activity (Aylott & Mitchell, 1998) through which the consumers obtain the necessary products for their households. Nowadays there are mainly two ways to conduct the grocery shopping activity, by visiting a physical grocery store or by shopping from online grocery retailers. The first one is the traditional way of shopping, while the online grocery shopping is a concept that has been introduced after the development of online technologies mainly as another solution for the home delivery (Elms et al., 2016; Hagberg & Fuentes, 2018). The online grocery shoppers are mainly consumers who seek for factors such as convenience (Huang & Oppewal, 2006), variety or just information (Nguyen et al., 2018). Also, according to Hand et al. (2009), situational factors can affect the introduction or disruption of consumers' online shopping, meaning that changes in individuals' lifestyles can trigger the need for using or not the online stores. At the same time, the physical stores are distinguished into different formats, such as convenience stores, supermarkets and warehouses (Sorescu et al., 2011), which combine different aspects of the retailing mix, such as product variety, location, price and customer interface. The consumers usually use a combination of different stores to satisfy their households' needs (Elms et al., 2016). The existence of the different formats helps the retailers to be competitive and attract consumers by satisfying their needs in each occasion. This is especially true in the case of grocery stores which, according to Bhatnagar and Ratchford (2004), usually overlap each

other's product assortment. In general, the consumers prefer the grocery stores which can offer the desired products and minimize the cost, including the travel costs and the prices of the products (Bhatnagar and Ratchford, 2004). Also, when the consumers' purpose is to purchase bigger amounts, the existence of larger quantities plays an important role in their choice of grocery store (ibid.).

Previous studies describe that consumers' grocery shopping in a physical store might vary, depending on the purpose of the trip, which can be a major or a fill-in shopping (Nilsson et al., 2015; Walters & Jamil, 2003). The major trips require more planning, time and amount of money to be spent, and when being in the store the shoppers usually do more unplanned purchases (Nilsson et al., 2015). On the other hand, the fill-in visits to the grocery store are more frequent and not time consuming and they are usually carried out to restock some perishable products, such as milk or bread (ibid.). For the performance of major shopping the consumers prefer large store formats, while during fill-in shopping, they usually visit small store formats (Reutterer & Teller, 2009).

Additionally, the consumers tend to visit the grocery stores either for practical or experiential purposes. In case of the experiential ones, Arnold and Reynolds (2003) describe in their article different hedonic motives which lead the consumers to visit a store. Some examples are the visits to release stress and negative feelings, to socialize or to hunt for bargains (ibid.). The practical purposes are those aiming to buy something or seek for information. In such cases the shoppers often follow specific patterns when shopping and they already have in their mind what they want to purchase (Ebster and Garaus, 2011). As a result, the retailers, based on the shoppers' different purposes and potential in-store routes these purposes can lead to, intervene and apply various practices in order to guide them through the store (Ebster and Garaus, 2011). For example, in order to make the consumers' orientation in the grocery store easier, different signs are placed at overhead, on the walls or on the floor (ibid.). Additionally, according to Baker et al., (1992) the social store environment, that is the staff, can affect the consumers' perceived quality of visit. They explain that influencing the number and the behaviour of the store's personnel can contribute into more arousing environment where the customers are more willing to spend more time and interact with the staff.

Finally, the complexity of the different aspects of the concept of grocery shopping is evident through the grocery shopping literature studied as consumer behaviour. However, as this research study uses the Practice Theory approach to explore grocery shopping, it is necessary to develop an understanding of what practice theory is and how it changes.

## Practice theory

### What is the Practice Theory?

The Practice Theory has been extensively discussed from different points of view in social and cultural researches during the previous years (Halkier et.al, 2011; Warde, 2005). In particular, practice theory is not a unified theory, but rather a family of theories that aim to observe and explain the individuals' taken for granted regular everyday doings. Halkier et.al (2011) described the concept of practice theory as a mixture of efforts that focus on the conditions that encompass the performance of the social life. Also, Schatzki (1996) defined it as "*a temporally unfolding and spatially dispersed nexus of doings and sayings*" (Schatzki

(1996, p. 89). This leads to the understanding that the practice theory mainly emphasizes on the practices as coherent entities, constituting the habits and routines carried out in a society. Reckwitz (2002) developed a more detailed explanation in his definition of the practice theory as: *“a routinized type of behaviour which consists of several elements, interconnected to one another: forms of bodily activities, forms of mental activities, ‘things’ and their use, a background knowledge in the form of understanding, know-how, states of emotion and motivational knowledge”* (Reckwitz, 2002, p. 250). This definition reveals the existence of various elements and underlines the importance of their coexistence to shape a practice. Also, Halkier et al. (2011) interpret the definition as emphasis on how important are the objects and their use to the execution of a practice. Finally, Reckwitz (2002) argues that the performance of a practice is the result of the coexistence and the interdependence of the involved elements.

For the practices to be carried out, the involvement of an individual is necessary. Reckwitz (2002) calls these practitioners as “carriers”. Also, Hargreaves (2011) argues that the social practice theory does not perceive the individuals with their decision making in focus, but instead as the “carriers” of the activities needed for the execution of the social practices. However, it does not mean that the individuals are not the masters of their own doings or that they are controlled by the practice, instead it means that they are versed actors who successfully accomplish different tasks during their daily routines (Hargreaves, 2011). Consequently, different aspects such as understandings, know-how, meanings and purpose are not seen as individuals’ features, but instead as part of the practices through which they are developed by the carriers (Shove & Pantzar, 2005).

Furthermore, in order to simplify the practice theory, Shove et al. (2012) used a more convenient and plain approach, in which the practice can be perceived as synthesis of three main elements: competences, materials and meanings. As described in Fuentes and Svingstedt (2017) paper, competence is used to describe the generally shared knowledge about how to get involved in and to perform a practice. Material incorporates all the material aspects of the practices, including objects, infrastructures, body and tools that are required to perform a practice (Fuentes & Svingstedt, 2017). And lastly, the meaning is the “social and symbolic significance” (Shove et al., 2012, p.23) of getting involved in a practice, including carriers’ feelings, motives, beliefs etc. Moreover, Fuentes and Svingstedt (2017) discuss that these elements are connected to each other and combined they create a complete socio-material picture. In fact, it is their interactions who make the practice achievable and define the way they will be performed (Shove et al., 2012).

## Practice Change

It is important to mention that the practices are not static, rather they can be transformed or become a part of other practices (Shove et al., 2012). Based on a combination of literature studying the Practice Theory, Halkier et.al (2011) concluded that the practice theory approach is suitable for observing stability in practices as well as exploring the social change. The performance of the practices can alter due to various reasons, one of which depends on social and cultural settings (Halkier & Jensen, 2011; Gram-Hanssen, 2011). As the practices are carried out by individuals acting and living their everyday lives within the social and cultural frames, it is not strange that any changes in the society bring changes to practices.

Moreover, an established concept of explaining how the change occurs is the “circuit of practice”, which focuses on how the practice is changed when the carriers of the practice

develop new patterns in their activities (Magaudda, 2011). Halkier et.al (2011) mentions examples of features such as the use of new material or new technologies to be responsible for the changed performance of a practice. The fact that practices are created through the combination and arrangement of the three elements mentioned in Shove et al. (2012) study, indicates that any changes in these elements could lead to a differentiated practice.

Moreover, Shove et al. (2012) argue that the existing links among these practices are also important for the process of practice change, explaining that when a specific link is broken the performance of the practice is not same anymore. As a result, elements belonging to the materials may become parts of other practices or be abandoned because of lack of their usefulness (ibid.). As the time passes, the world sees different objects and technologies being left behind because they stopped being useful in our everyday lives. In the case of competences, although their disconnection can result in their preservation as existing, they still may stay inactive or just forgotten (ibid.). An example of this could be different know-hows that are not needed anymore so they became forgotten or used only by few. However, when it comes to meanings, it seems that they usually keep being accumulated, with new layers of social significance lying above the previous ones instead of being eliminated (ibid.).

Furthermore, it is important to note that different practices are interconnected which often means that the performance of one practice is affected by the performance of other practices and vice versa. According to Warde (2005), a practice is never isolated, but instead it is interlaced with other practices. The author adds that practices share their elements when they are being carried out and that altogether they belong to a bigger setting in which they are performed (Warde, 2005). This means that a change occurring during the performance of one practice could influence the performance of other related practices. Shove et al. (2012) adds to this by stating that new practices can replace the ones that are not performed as often anymore or the ones that have completely stopped being performed. Moreover, Warde (2005) argues that the practice can be changed not only due to the practices' different interactions, but also because of inside factors, when the carriers of the practice stop following their routes during new situation, and instead create new ways of performing their activities.

## The practice of Grocery Shopping

Having explained the practice theory approach, it is now necessary to investigate how grocery shopping can actually be seen through the lens of practice theory. As the Practice Theory approach has been previously used as a tool for the exploration of consumption practices, according to Halkier et.al (2011), it can be useful to understand the evolution of practices during the performance of the everyday life (Lee, 2017). Grocery shopping is a consumption activity, in which the shoppers need to perform different practices in order to successfully conduct the consumption process. Based on Fuentes (2014) discussion of shopping activity as a practice, the concept of grocery shopping can be analysed through the use of the Practice Theory approach. Although shopping has been previously studied from two different angles, psychological-economical and socio-cultural (Fuentes & Hagberg, 2013), neither of them focuses nor stresses the actual practices of the practice of shopping (Fuentes, 2014). Alternatively, Fuentes (2014) treats shopping as practice by underlining the practical perspectives in combination to the reproduction of the social ones (Fuentes et.al, 2019).



Furthermore, Fuentes (2017) suggests that to be able to investigate shopping through the lens of the practice theory, it must be perceived as a combination of doings and sayings which are routinely performed by the shoppers. At the same time Aylott and Mitchell (1998) describe the grocery shopping as a highly routinized activity, which confirms its social frame and proves its fitting in the practice concepts. Also, according to Fuentes (2014) the practice of shopping should be part of the wider complex of practices interacting with each other. Indeed, the grocery shopping can be described as the combination of various practices with the goal of acquiring goods, information or experience. It is also interlinked with practices, such as cooking, cleaning, eating and can be influenced by other ones, such as working or traveling. Halker and Jensen (2011) are in line with the above when they claim that activities related to food consumption can be perceived as the oscillation among food practices and other practices performed in a daily basis.

Furthermore, Elms et al., (2006) argue that grocery shopping is a skillful, social and complex practice fixed in specific settings. The carriers of the practice are required to have the above characteristics in order to be able to conduct the shopping process successfully. This can be seen in the different and complex choices the consumers need to make, while taking into consideration various factors, such as social situations, values and taste (ibid.) Except for the practitioners' skills, Lee (2018) notes the importance of "systems of provision" which in case of grocery shopping are the infrastructures that allow to carry out different practices by having access to products and services. The examples of these infrastructures can be the grocery stores, where the practice of shopping is performed, and the means of transport enabling the trips to and from the store.

Finally, following the Shoves et al. (2012) definition, the practice of grocery shopping is also based on the existence of three elements, the material, the competences and the meanings. The combination of these elements makes the practice of shopping to be established and developed. Moreover, Fuentes (2014) argues that the practice of shopping can additionally incorporate economic, cultural, human, nonhuman, rational and emotional elements underlining the complexity of the factors that can influence the practice of grocery shopping. Based on this, in order to be able to study the grocery shopping practice during a disaster outbreak, it is necessary to develop an understanding of the different aspects which could affect its performance in such situations.

## Grocery Shopping during a disaster

Consumer patterns during the outbreak of a disaster, either natural or human made has been discussed in various disaster literature (Guion et al., 2007; Jebarajakirthy et al., 2014; Menzel Baker & Menzel, 2009) noting that such problematic situations can affect the way the consumers' shop. This reaction can be explained by the fact that disasters provoke stress and fear to the individuals who experience it (Houston et al., 2015). These emotions are quite strong, and as described in the Larson and Shin (2018) study, can impact on the individual's thinking, perception and behaviour as well as initiate the person's effort to eliminate the feeling of being in danger. However, the practice of grocery shopping at the time of such a critical situation will possibly not be disrupted as the individuals will still need food and hygiene products. Also, Beatty et al. (2019) explain that a common reaction during a disaster is to get prepared for the situation and it usually includes the practice of shopping, as a way to

stock the household with the necessary goods. In the following sections, various factors having influence on the practice of grocery shopping during a disaster outbreak, will be developed.

## Preparedness

Preparedness is activated when people believe that there is a risk for a disaster or crisis. For example, a crisis in food supply described in Gerhold et al. (2019) article is a situation when the food supply is not guaranteed for all the members of a community, and usually the government has to provide a solution. The level of preparedness is affected by the perceived level of possible risk, according to Becker et al. (2013). In other words, the higher is the concern about a problematic situation the more prepared the consumers tend to be. The available resources play also an important role in how the individuals react to an upcoming emergency, with those who believe that they have plenty of resources to cope with the threat not getting involved with the preparedness (Levac et al., 2012).

Additionally, previous disaster experience affects the level of preparedness and it is even higher in areas with extended disaster incidents (Page et al., 2008; Kohn et al., 2012). When examining the opposite case, based on findings from a research conducted in Germany (Gerhold et al., 2019), the citizens believe that the likelihood of food shortage to happen is very low, a behaviour that is derived from the fact that there have never been serious food crisis after the World War II. This example shows that the perception of risk is low in societies where the emergency experience is also quite low, which probably would result in low participation in the preparedness practices. Finally, according to Larsson & Shin (2018), even though shopping groceries for preparedness reasons may be a crucial task for many consumers experiencing a disaster, obstacles such as crowding in the stores, accessibility or problems with purchases often occur, making the shopping process challenging.

## Disaster as shopping stressor

A critical situation, such as Covid-19 in our case, brings not only the psychological stress of experiencing a disaster, but also various disruptions in how the everyday life is performed. Aylott and Mitchell (1998) explain the meaning of a shopping stressor as anything that could disrupt the performance of smooth and undisturbed shopping process by causing the feeling of anxiety to the shopper. Aylott and Mitchell (1998) argue that time pressure, environment and social factors can send messages about an irregular situation as well as cause stress to the shoppers. In addition, Larson and Shin (2018) describe the crowding and the accessibility to the store as factors that could cause difficulties for the consumers during the process of shopping and influence the way they perform it.

The effect of crowding is discussed from different scopes by Aylott and Mitchell (1998), who describe that even though crowding is sometimes desirable when the consumer seeks for shopping as pleasure, in case of a stressful situation, such as of experiencing a disaster, it is usually perceived as unpleasant. In such case, the authors argue that in order to improve the shopping process, the activity of shopping tends to be planned in advance and the shopper highly relies on the functional aspects of the store for better experience (ibid.). This can lead to changes in the stores' design and other parts of the retailers marketing mix (ibid), to give

the individuals more personal space or motivate them to visit during less crowded hours or days.

## The power of knowledge

Before visiting the stores, the grocery shoppers are usually already aware about the ongoing situation. Obtaining information during a disaster outbreak is precious as it determines to a great extent the society's decision making process by guiding those affected by the disaster (Pan American Health Organization, 2009). Public and social communication are today the main ways of efficiently managing such situations (ibid.). The communication by the authorities should be conducted in a way to ensure trust of the people, when lack of trust in authorities increases their level of fear and decreases their likelihood of following the recommendations (ibid.). This means that the provided instructions are applied more effectively when the community trusts the authorities.

Also, it is important to mention the significance of the media during a disaster, whose role is central for providing information to the individuals (Garfin et al., 2020; Houston et al., 2015). Nowadays, the flow of information is huge and the sources for it are plentiful which might lead to different emotions produced through the interaction with these media. For example, rumours and misinformation combined with an invisible danger, such as Covid-19 disease, might inflame the feelings of anxiety and panic (Kohn et al., 2012). Depending on its quality, this information might influence the risk perception level, create stress or cause uncertainty about the future (Garfin et al., 2020), which can lead the consumers to specific actions and adaptations of their shopping activities. To prevent such misinformation and to build trust, it is essential for the authorities to be transparent and provide facts and details on the very early stages of the disaster (Pan American Health Organization, 2009). Moreover, the best policy for public trust is achieved by an effectively communicated plan, which underlines the risks of the disaster and provides recommendations and measures about how to deal with it (ibid.).

Additionally, the extended usage of social platforms in everyday life can contribute to sharing information about disasters, crisis or emergency warnings (Houston et al., 2015). As a result, the individuals regularly acquire emergency information through the interaction with their social network, such as friends and family, and rely on each other's support (Levac et al., 2012). This social interaction through the connected societies can be beneficial for improving the level of the preparedness according to Levac et al., (2012), because more people might engage in preparedness practices when others around also do so. This could mean that media, social media and other means of information play an important role in the spread of information which affects the consumers' reactions.

## Economic uncertainty and grocery shopping

The outbreak of a disaster is usually followed by societal, political and economic consequences (Houston et al., 2015a; Mcfarlane et al., 2006). Beyond the natural disasters consequences, an economic problematic situation can also affect the way the society deals with critical situations. Difficulties may occur not only during the outbreak of an emergency, but also when the damages caused by the disaster must be restored. Okuyama (2007) argues that the impacts of several disasters can lead to an economic decline and even a recession. Such economical situations can affect the individuals by causing uncertainty about the future, because of the affected levels of income and the expected inflation (Sharma & Sonwalkar,

2013). This economic uncertainty could be reflected in different aspects of society's performance of everyday life, such as in a more conservative way of shopping. Sharma and Sonwalkar (2013) describe in their study that consumers affected by an economic crisis tend to experience various emotions, such as anxiety, insecurity and pessimism, which derive from the reaction to a problematic situation. As a result of these emotions, the individuals become more reasonable and careful with their expenses by avoiding the pricey products, replacing them with low-priced substitutes and visiting more often discount stores formats (Quelch & Jocz, 2009; Ang et al., 2000). Ang et al. (2000) also notice that while shopping during an economic crisis, more attention is paid on the durability and function attributes of the products. This means that during a more conservative performance of grocery shopping, the preference for specific products might change.

## Methodology

Grasping how the practice of grocery shopping is being changed during the Covid-19 outbreak, requires exploration of the grocery shoppers' activities. For a deeper understanding, this research aims to study the grocery shoppers' performance of their everyday activities, under restrictions and measures applied by the authorities, and to identify what has changed. This study provides the advantage of being able to observe the phenomenon as the change takes place. However, because of the novelty of the phenomenon, a pilot study was required first, in order to provide a better view of the situation. Thereafter, based on the purpose of the study, the qualitative research method in form of personal interviews was considered as the most appropriate to explore the consumers' everyday practices and to gather empirical data. This decision was based on the Bryman and Bell (2003) argument that the qualitative method can show how the individuals perceive and make sense of their social reality. Also, according to Eriksson and Kovalainen (2008), personal interviews can be advantageous in examination and understanding of experiences, emotions and perspectives, which in our case can help to identify the participants' shopping practices.

Having in mind the use of practice theory in this study, it is worth to mention that, according to Hitchings (2012), different researchers argue that personal interviews are not suitable for the exploration of routine practices as it is not easy for the participants to talk about their unpremeditated practices. However, Hitchings (2012) concludes in his paper that making people talk about their practices might not be as simple, but with a carefully designed study the participants are absolutely capable of describing and reflecting on their personal routines. As a result, through the chosen interview approach, the discussion with the participants intends to provide access to their personal experiences and give a clearer picture of their grocery shopping practices during the crisis of Covid-19.

### Pilot study

Before the performance of the personal interviews, a pilot study was performed in order to provide a clearer picture of the situation during Covid- 19. The reason for this was first, because the phenomenon was quite new both for the researchers and for the interviewees, and it was essential to really understand which of the conditions influence the practice of grocery shopping. It was important for the researcher to get fully informed and prepared for the

interviews in order to be able to lead an effective and interesting discussion. And second, even though the participants' descriptions of personal experiences and feelings about the matter are central for this study, the stressful situation might lead them to illustrations that are not exactly aligned with the reality. In this case, the researcher must be updated and knowledgeable to be able to complete the gaps during the process of analysis.

The pilot study was carried out for one month during the period of 22 March to 21 April. During the pilot study, the researcher read the daily news related to the topic of the Covid-19 for both Sweden and other countries, especially those concerning the measures and the panic buying. Also, official authorities' web pages, such as "who.int", "folkhalsomyndigheten.se" and "krisinformation.se", were also regularly checked in order to keep being updated from trustworthy sources. Other trustworthy sources were some academic articles or articles published by academic professors regarding the Covid-19 situation. Additionally, observations were conducted in some grocery stores, to observe different changes as these were occurring during the pandemic's evolution. Some pictures were also taken in the stores as reminders or for a possible use during the interviews (*See Appendix B*). The gathered information contributed to the creation of a more complete synthesis of the factors that might cause changes in the consumers' everyday lives and their grocery shopping practices. The pilot study gave a small taste of what to expect from the interviews and the information gathered was used for the development of the topics for the interview guide. Also, the results of the pilot study were analysed and presented in the findings.

## Sampling

This study aims to identify how the consumers carry out their practice of grocery shopping when a disaster occurs and the selection of suitable participants for the interviews is crucial. As claimed in Schreier's (2018) study, any person who has experienced the studied phenomenon can be considered as an appropriate participant for the interview, with an ability to provide their personal perspective. Consequently, taking into consideration the fact that every individual who lives in Sweden is experiencing the covid-19 pandemic phenomenon, every Swedish resident has some kind of experience to describe.

However, in order to obtain relevant information, the purposeful sampling, and in particular the criterion sampling, was used in this study. The decision was based on Schreier's (2018) study, who described that by applying specific criteria, this approach provides the advantage of obtaining rich, in-depth information from even smaller samples. The sample of this particular study involved residents of Sweden, which was homogeneous with respect to the place of residence and the restrictions proposed from the national authorities. Additionally, it was important that all the participants were taking part in the grocery shopping practice for their household, to be able to talk about it. However, the selected participants were heterogeneous with respect to the type of their household (single, couple or family with kids), their age, their gender and their multicultural background. The variety of the cultural background was desirable because during the pilot research it was noticed that the published information was often dealt as an international matter, including sources from WHO or updates from other countries, because of the global aspect of the crisis. For this reason, it was taken into consideration that the way the individuals get informed about or apply the measures might differ depending on their interaction with media or people from other countries or the level of trust they have in authorities' recommendations. Furthermore, individuals belonging to risk groups, mainly those with higher likelihood of developing

Covid-19 disease implications, were decided to be not included in the research. This is applied in order to avoid biased responses for persons experiencing too much stress at the current moment. According to the Health Public Agency of Sweden, under higher risk of developing severe illness are the older aged individuals and those with pre-existing medical issues (Folkhälsomyndigheten, 2020). To sum up, the individuals selected to contribute in this research are residents of Sweden fulfilling the criteria of participating in the grocery shopping practice for their household and not belonging to a risk group. The Table 1 presented below includes information about the participants of the interviews.

**Table 1** Interviews information

Participant	Household Characteristics	Interview context
Part.1	Woman (29) from Vietnam, have lived in Sweden for 2 years. Lives with her partner in a city apartment.	1 h 3 min, 0 photos
Part.2	Woman (44) from Romania, have lived in Sweden for 7 years. Lives with her partner and 2 kids in a city apartment.	1 h 10 min, 0 photos
Part.3	Woman (24) from China, have lived in Sweden for 2 years. Lives alone in a student apartment with common areas.	59 mins, 0 photos
Part.4	Woman (24), from Sweden. Lives with her partner in a city apartment.	50 min, 26 photos
Part.5	Man (28) from Greece, have lived in Sweden for 4 years. Lives with a partner in a suburb house.	53 min., 5 photos
Part.6	Woman (24) from Sweden. Lives with her partner in a city apartment.	57 mins., 5 photos
Part. 7	Man (27) from Greece, have lived in Sweden for 4 years. Lives with his partner and 1 kid in a suburb apartment.	1 h 16 min., 2 photos
Part.8	Man (29) from Greece, have lived in Sweden for 3 years. Lives alone in a city apartment.	45 mins, 6 photos
Part. 9	Woman (26) from Sweden. Lives with her partner in a city apartment.	47 mins, 0 photos
Part. 10	Woman (31) from Cyprus, have lived in Sweden for 5 years. Lives with her partner and 1 kid in a city apartment.	1 h 15 min., 7 photos

## Personal Interviews

The personal interviews were performed during the period of 17 April to 16 May. Based on the criteria described above, 10 participants were purposefully chosen for the personal interviews through the researcher's social network. Schreier (2018) argues that smaller samples, ranging from 8 to 52 are acceptable to be used in case of relative homogeneity of the phenomenon, which applies to this study. Taking into consideration the recommended measure of practicing the social distancing during the outbreak of Covid-19 (Who, 2020b),

distance communication through video interviews was the safest and most convenient way for both the participants and the researcher to do the discussion. The communication platform “zoom” was used for the performance of the video calls. The participants were participating absolutely voluntarily and were informed about the matter of confidentiality and anonymity before the start of the interviews, as suggested by Eriksson and Kovalainen (2008). This approach is not only a part of the researcher’s ethical consideration, but also aims to increase the interviewees ease and comfort to talk about personal topics (Eriksson & Kovalainen, 2008), such as their everyday routines.

The interviews followed the semi structured approach, including questions that were formulated in advance. Eriksson and Kovalainen (2008) suggest that this method gives freedom to the participants to develop their descriptions as well as to the researcher to deepen in some arising interesting topics. Heidenstrøm and Kvarnlöf (2018) mention that the disadvantage with studying practices through methods based on discussion is that there is no possibility to observe the real practices as they are conducted. For this reason, the study was designed to provide as rich information as possible by orchestrating an in depth and unrestrained discussion. Kvale and Brinkmann (2014) support this decision by stating that when the goal of an interview is the description of experiences, then the focus should lie on creating a friendly conversation instead of exchanging questions and answers.

Before starting with the interviews an interview guide was designed (*see Appendix A*). It was divided into different topics based on the literature review developed above, as well as the information gathered through the online research of the pilot study. The interview guide included mainly open questions that would give the participants space to express themselves, as suggested by Eriksson and Kovalainen (2008). Additionally, according to Latham (2002) when studying practices, the researchers have to align the style and the logic of the interview guide with the way the participants are thinking. As a result, the questions were attempted to be framed in a way that the participants would understand and be willing to talk about. Another aspect taken into account was Hitchings (2012) warning that when asked about routines in a research, the participants might feel that they do something wrong or that they seem to not be the masters of their own doings, which can result in a defensive behaviour. In order to minimize this, instead of being formal, the discussion was tried to be kept in a more friendly, neutral and informal level. Moreover, the interviewees were asked to take some pictures from their visits to grocery stores in order to discuss them during the interviews. The aim of this was to trigger the description of the practices by seeing the objects or the environment as it was experienced by the participants. Heidenstrøm and Kvarnlöf (2018) shared that exploring the pictures taken from the participants helped them to get richer answers to their study and also Hitchings (2012) claimed that it was easier to discern which aspects of the routine were more significant.

The first interview of this research study was used as a try-out to reveal the weaknesses of the interview guide. The aim of this process was to test if the interview guide was effective, how the participants would react to the questions and then apply the corrections to the following interviews. Finally, it was essential to check the technical issues of the tool for the video calls, as all the interviews would be conducted online, as well as to assess the approximate duration of the interviews. Also, Hitchings (2012) discusses the importance of the researcher to be able to manage different reactions to obvious questions and to provide alternatives when needed, when exploring the practices through personal interviews. The first interview proved to be a good opportunity to see how the participants are thinking and to complete the

interview guide with some follow up questions. The following interviews were adapted according to the weaknesses identified in the previous ones, mainly the first one. With participants' consent, the video interviews were recorded for further analysis. Eriksson and Kovalainen (2008) suggest the recording to allow the interviewer pay full of his attention to the development of the conversation instead of taking notes.

## Data Analysis

The video recordings were used in the transcription of the interviews as well as for paying attention to respondents' reactions while explaining their everyday lives during the Covid-19 situation. According to Hitchings (2012), observing participants' bodily expressions and instinctive reactions could provide with valuable information about the performance of the practices, for example how stable or fixed they are. The video recording provided the advantage of not only being able to listen to it again, but also to rewatch it more carefully. During the data analysis process, the transcribed material was combined with the material from the research conducted during the pilot study. This helped to create a better illustration of the overall situation in the country and how it affected the participants' everyday lives as well as their performance of grocery shopping. Subsequently, the transcribed material from the personal interviews was analysed with the method of thematic analysis. As suggested by Eriksson and Kovalainen (2008) the participants' answers were carefully examined until some patterns - or themes - were identified. In this study, it was helpful to detect and write down the practices related to grocery shopping in each transcription of the interviews, and then categorize them according to their content. Colored underlining was used to represent each participant, which helped to recall which patterns belonged to whom. This process led to creation of six themes, which were based on different aspects of the grocery shopping practices changes.

## Trustworthiness

In order for the study to be considered of high quality, the concept of trustworthiness has to be confirmed. According to Eriksson and Kovalainen (2008) there are four different criteria which have to be fulfilled to ensure the trustworthiness: dependability, transferability, credibility and conformability. Based on these criteria the information included in this research can be perceived as trustworthy. In particular, to support the criterion of dependability, the research study provides a detailed methodology part describing all the processes being carried out, to ensure that the reader can easily follow them (Eriksson & Kovalainen, 2008). To be more specific, thorough information about the choice of the method, the sample and the ways of analysis of the data is provided. When it comes to the transferability, it means to be able to apply the findings of this study to other contexts or circumstances (Eriksson & Kovalainen, 2008). Such applicability is hard to prove, thus this study provides detailed information and reflections, for example over the interview and pilot study processes, so that the the reader is able to follow and conclude if the findings are reliable enough to be transferable. Also, the credibility criterion is met as there is efficient amount of data to support the assertions, the interviewees were voluntarily participating in the research and the researcher discussed the topics with a supervisor, which helped to prevent any biases that could distort the results (Shenton, 2004). Additionally, the performance of the pilot study as well as the use of relevant literature helped the researcher to better understand the occurring phenomena and support the arguments. Finally, in order to ensure that the



developed ideas come from the participants of the research and not from researcher's own ideas, which is the concept of conformability (Shenton, 2004), all the processes have been documented including recordings from the interviews and pictures from the grocery stores.

## Findings

### Contextualizing the changing practice of grocery shopping

In order to better understand the changes in the consumers' grocery shopping practices, the circumstances under which these changes happened were examined. The pilot study, conducted in the beginning of this research, revealed different scopes of the ongoing situation which played an important role in how the practice of grocery shopping has evolved. Later, the personal interviews helped to clarify which of these aspects affected participants' everyday lives and how.

While following the news it became clear that even though the pandemic of Covid-19 disease is global, each country has adopted different approaches for the management of the crisis. There have been constant updates and general suggestions by the WHO, however the extension of the application of measures is decided by the governments of the correspondent countries. In the case of Sweden, recommendations are issued by the authorities and the citizens are called to take responsibility and adhere to the guidelines. The authorities continuously have been informing the citizens about the situation and gradually have been introducing specific measures as the critical situation was evolving. Based on Pan American Health Organization's (2009) report, such strategies are applied as a way to build trust and prevent misinformation in the society.

One of the measures recommended in Sweden during Covid-19 disease concerns the individual's hygiene and public health, with the authorities underlining the importance of often washing or disinfecting one's hands, and avoiding leaving one's home when feeling sick (Folkhälsomyndigheten, 2020). Another important measure is the social distancing, which means for the individuals to keep physical distance from other people indoors, outdoors and in public transport in order to limit the spread of the virus (Folkhälsomyndigheten, 2020). Thus, social gatherings with more than 50 people are banned and traveling and visiting other people, especially those at high risk, is deterred (ibid.). Also, working and studying remotely is promoted (ibid.) During the interviews it was visible that these measures affected the participants' everyday lives, with some of the participants or their partners spending more time at home than usual because of changes in how they work or study. However, as mentioned during the interviews, some groups of people cannot stay home as others do, for example those who are doctors, teachers or kids have to keep going to the hospital or school, as these stayed open. The situation is described as awkward by a participant:

*"(...) We are both staying at home right now because my husband doesn't go to work, he works from home. And I'm feeling awkward because we are staying home and our kids are going to school. I mean, I consider them more vulnerable than we are, but they are the ones that go out in the crowds." - Part.2*

Consequently, the need for application of social distancing led different indoor public places, including restaurants, gyms, stores, hospitals etc., to be adapted accordingly. The observations of grocery stores during the pilot study showed that signs indicating the safety measures or equipment for the employees' and customers' protection, were installed (*see Appendix B*). The different grocery stores have added new features such as opening hours only for the risk groups, hand sanitizers, plastic gloves and glass wall at the checkout counters. Additionally, there have been placed a number of signs to guide the customers during their shopping activity, such as floor markings indicating to keep distance through the store and at the checkout counters, notes asking the customers to use hand sanitizers at the bakery section and other notes asking to not buy more than necessary. These signs were added to the existing ones, which the retailers use in the stores as way to assist the customers with their in store orientation (Ebster and Garaus, 2011). During the interviews the participants described that these signs were visible and clear, and it was not possible for someone to not pay attention to them as they were everywhere in the store. The described signs' role in the grocery store is mainly to remind the customers to comply with the government's guidelines.

*"I would say that they (signs) work as reminders for me to not forget to keep distance from other people, because I forget it sometimes when I walk around in the store. I mean that I already knew that I need to keep distance, but if it was not these signs, I would not remember to follow the rules." - Part. 8*

This quote also shows that the information provided in the store is not new, rather the customers are already aware of the situation and the guidelines when they reach the grocery store. The amount of information offered to the individuals has been huge as Covid-19 topic has been extensively discussed in the media and was also trending in Google searches (Google Trends report, 2020) after the appearance of the disease. Both pilot study and personal interviews showed that customers of the grocery stores except for following the signs and recommendations in the stores, apply other extra measures to ensure their safety and wellbeing. These measures derive from the consumers' interaction with information coming from various sources, formal and informal, including authorities' announcements, news, social media and discussions with other people. For example, during the interviews some participants mentioned to wear masks and gloves when visiting the grocery stores, even though this is not officially recommended in Sweden.

*"I follow some of them (recommendations). I use my phone to read the news, I have the apps for big news agencies, and I refresh them to see what's new there. But I follow what I think that is right. I also use information not only from news and public health agencies, for example they say to not wear a mask because it's not useful but from my knowledge I know that it's useful so I wear it when I go in the crowds." - Part. 3*

This quote also indicates that previous knowledge and experience can influence the consumers' decisions and practices, which is in line with Kohn et al. (2012) who identify these as two important factors which determine individuals' attitudes during a disaster. Also, as described in Pan American Health Organization's (2009) report, the level of trust in authorities determines the individual's' likelihood of following the recommended measures. In general, the pilot study showed that because of the lack of specific guidelines to deal with the Covid-19 crisis, the individuals have to decide which information to rely on and who to

trust (Franks & Nilsson, 2020). During the interviews the participants described that they were following the Covid-19 situation not only for Sweden, but also for other countries, which provided information about the different scenarios of how the situation could evolve as well as ideas about how to deal with it. Additionally, the participants mentioned also that they discussed the situation with their family and friends and exchanged facts and advices. Especially, the participants with a multicultural background got their information from various sources, Swedish and from their home country ones, describing that they applied measures recommended from both countries or the ones they considered to be most effective even if the Swedish authorities had not recommended them. The Swedish authorities try to develop a relationship of mutual trust with the citizens when making the recommendations (Franks & Nilsson, 2020), and some of the participants seemed to show support and appreciation to what the government is doing for them. However, some of the international citizens find it difficult to trust and rely only on these recommendations.

*“(...) I see people doing barbeques, being together, jogging, playing soccer and nothing has changed in fact. My son’s trainings didn’t stop. (...) the only difference is that they don’t shower anymore there (...) but I am afraid to let him go to swimming because I am thinking that everyone spit in the water. So, nothing happened actually, and I think this comes from their trust to the government and I don’t think that we have that trust. We are coming from countries where we don’t trust our governments and it is reflected in this pandemic.” - Part. 2*

Except for the trust issues, the way this quote is describing the situation reveals a high level of worry and insecurity. Fear and stress are emotions that people going through a disaster tend to experience (Houston et al., 2015). As the media play a central role in providing information during this pandemic, according to Garfin’s et al.’s (2020) article about media exposure during Covid-19, it can affect the individual’s’ level of stress. The interest about the pandemic topic is huge and the flow of information and the sources for it are plentiful. Daily updates on the Covid-19 cover various topics, with the most popular describing the ongoing societal and economic situation and making predictions about the future, however not all of them are valid. The negative emotions can affect the individuals’ thinking, perception and behaviour (Larson and Shin, 2018) and lead to attempts to eliminate the feeling of being in danger.

*“In the beginning of this pandemic, we freaked out a bit and said “ok we have to eat”, you know, “we are turning to basics right now, what if we run out of flour or oil?”, so I started in the beginning to buy meat. I didn't have space in my refrigerator, honestly, we bought so much... And we started buying pasta, flour because everybody were talking about like “we are running out of food”. So yes I bought quite a lot.” - Part.2*

This fear for the unknown of the upcoming disaster activated the consumers’ need for preparedness, a situation described in Kohn et al.’s (2012) article. In this case, it is expressed through the “panic shopping”, as it is referred to in the media, and consumers’ attempt to get prepared was visible through their persistence and effort to get supplied with essential products, such as toilet paper, hand sanitizers and long-lasting foods. The grocery industry experienced such a rapid increase in demand for these goods, that most of the retailers were unprepared to manage, which resulted into end of stock and empty shelves (BBC, 2020).

In short, the measures applied by the Swedish government for the Covid-19 pandemic are not too limiting, however the consumers are still restricted to perform their grocery shopping routines in accordance to the recommended measures. They also have to deal with a huge flow of information and manage stressful emotions like fear, anxiety and uncertainty while carrying out their everyday life. These findings are in line with Elms et al.'s (2006), meaning that the carriers of the practice of grocery shopping have to be able to successfully perform this skillful, social and complex activity, by making complex choices and taking into consideration the specific settings of the ongoing situation. Thus, it is interesting to see how the performance of the practice of grocery shopping has changed under these circumstances. The information obtained from the personal interviews was used in order to identify and describe the changes in the grocery shopping practice. The different aspects of these changes are presented below.

## Identifying changes in the grocery shopping practice

### Staying away from grocery stores

As pointed out during the interviews, the first change in the grocery shopping routine, during the outbreak of Covid-19, is the participants tendency to avoid the grocery store. They described that they avoid going for grocery shopping as often as before, because they follow the recommendation to stay home as much as possible. Instead of going to the grocery store several times a week the shoppers buy more groceries at once, expecting them to last for around one or two weeks. They also discuss about reducing the frequency of their visits by avoiding going to the store when it is not really necessary. Based on Nilsson et al.'s (2015), the lower frequency of the visits combined with bigger amounts of products is what major shopping is. Indeed, it was described that participants' fill-in visits are mainly replaced with major ones, with the participants even preferring to cook alternatives with the already existing ingredients every time they lack an ingredient for a meal.

*“The frequency of grocery shopping is low for me because I don't want to buy regularly, every day, to avoid going out. And I buy more stuff than before. Before I shopped only for one week, because I bought more fresh food, but now I buy products for longer time, like I buy meat and I freeze it. If I lacked some ingredient I went there and bought it, but now I will do another dish. I'll cook something else with what I have.” - Part. 3*

The above quote underlines the fact that the connection of the practice of grocery shopping to other practices, such as cooking, freezing food and staying at home, can provide solutions for facilitating the consumer to avoid spending time in public places. Based on Warde (2005), it is evident from the above example that with the change of one common element that these practices share, such as the ingredients, the carriers of the practices successfully keep in balance the bigger setting in which these are performed.

Another change which contributes to the avoidance of physical grocery stores is the practicing of online grocery shopping, as some of the interviewees claim to have started buying their groceries online. Based on Hand et al.'s (2009) study, this shift can be explained as a result of the situational changes in consumers' everyday lives, happening due to Covid-19 pandemic. The participants describe to have either completely stopped visiting the

physical stores or visit them once in a while, mainly to buy a specific product they need at the moment. This because using an online grocery retailer required longer delivery time which meant that it was hard to be used for fill-in purposes. The combination of online and offline stores has been discussed by Elms et al. (2016) and explained as consumers' effort to better meet their household's needs. These results indicate that the introduction of new measures to follow, due to pandemic, make the consumers seek for the convenience offered by the online stores (Huang & Oppewal, 2006), which in this case is easier and safer accessibility.

Based on this, it seems that during the disaster outbreak new meanings of the grocery shopping practice has been added to the household's needs, which are to stay safe and follow the required measures. Additionally, the users of the online service were required to have the skills to successfully complete an online order. This sequence of changes affected by each other indicates the linkage among the different elements of practice, described by Shove et al., (2012), and shows how the change in the meaning required another change in the carrier's competence to conduct an online shopping activity. As mentioned by the participant below, it takes time to get used to the process.

*"I don't like it, to be honest. I'm sitting there and clicking on a screen, it takes time, the buttons on the phone are tiny, I put the same thing in the basket 2- 3 times, then I have to delete. You know, it's boring... In the beginning it took time to find the right buttons and to understand how the order and the delivery work. It's better now, I've got used to the process"*  
- Part. 7

Also, the quote above indicates that the performance of online grocery shopping required a use of a tool is required, which in this case is the mobile phone. Here, Shove et al.'s (2012) argument, mentioned previously, is confirmed for one more time. In other words, the goal to acquire the groceries without going out, changed the practice from offline to online grocery shopping as well as required the introduction of new competences (skills) and new material (Internet devices).

Moreover, in order to satisfy their need for groceries in the best possible way, the online shoppers mention to be trying and switching between different retailers, the ones they have previously used offline and new ones. Similarly, the visitors of the physical stores describe that they have changed the grocery stores they tend to visit. Again, it is visible how changes in how the convenience is defined, cause changes in the practice of grocery shopping. For example, visits to some grocery stores are abandoned, as reaching the store requires the usage of public transport.

*"Normally, before, I went to the supermarket in the center, but because I avoid using public transport, now I have to go the supermarket which is close by. I don't really like this supermarket because it's twice as expensive as the one in the center but I have no choice. I can walk there, so it's better than taking the public transport."* - Part. 1

The quote shows that the participants tend to visit the within-reach grocery stores, which except for being accessible without the need of transport, are also useful when they carry heavy bags full of groceries. Additionally, the disruption of other practices, such as traveling for work or studies, affected the choice of the grocery stores, which based of Warde's (2005) studies about interrelated practices, is expected. The change of grocery stores in the practice

of grocery shopping is actually a change of the element of material, which is common and shared with the practices of traveling. While traveling around the city, the participants often found it convenient to visit the grocery stores on their way home or combined the visits to specific stores with their route. With the disruption of traveling for work or, in general, moving around the city, the visits to these stores are not convenient anymore.

*“I mainly used 2 retailers, but now I basically go to the one close to my home. The other one is near my school, so I visited it on my way home but because I don't walk there anymore, I tend to not go there.” - Part. 6*

The results about choice of store are also in line with Larson and Shin (2018) statement about accessibility being a shopping stressor for the consumers, indicating that a convenient location which minimizes the risk of exposure to public places and transportation is a better choice. Also, the results confirm Bhatnagar and Ratchford (2004) argument, which states that travel costs is a factor affecting consumers' preferences of store formats. In this study, the minimized travel costs include minimized time and resources spent on the visit as well as minimized risk of being exposed to public places. The store formats the participants visit have changed, as the stores located in neighbourhood areas normally belong to smaller store formats (Sorescu et al., 2011). However, the fact that consumers visit smaller store formats for major shopping now, goes beyond the ordinary because, as described by Nilsson et al. (2015) and Bhatnagar and Ratchford (2004), it is usually the bigger and cheaper formats that are preferred in such cases.

## Avoiding people and things

The participants also revealed that even when they visit a grocery store, they don't feel as relaxed and carefree as before. As stated by Shove et al. (2012), feelings are part of the element of meaning. When the feelings are changed, the consumers need to enrich their competence and find new ways to perform the practice of grocery shopping under the new circumstances. As explained by the participants, they keep in mind the recommendations of social distancing and avoidance of public areas, which is one of the new meanings introduced in their grocery shopping practice, and it makes them try to have the minimum possible contact with the environment around. For this reason, the participants try to reduce the time spend inside the grocery store, with some of them mentioning that they do their groceries quickly and leave. Moreover, it seems that in many cases the time of visiting the grocery stores have changed, with the interviewees choosing hours during which they believe that the store is less crowded, like in the morning or evening. This confirms the fact described by Aylott and Mitchell (1998), that crowding is usually perceived as unpleasant during stressful situations, such as experiencing a disaster. Especially during Covid-19, when social distancing is suggested by the authorities, the significance of the crowding factor is conspicuous. As a result, the existence of other people in the store seems to problematize the consumers and make them seek for different ways to stay away from others.

*“We are going in the evening, when less people are coming, just to avoid the crowds. If more people come, I run home.(laughs) I don't like people in this period of time (laughs).” - Part. 2*

The grocery shopping's meaning of being a social activity, where the shoppers are supposed to interact with their environment, seems to be changing now, as they mainly seek for more solitude. The participants describe that they actively try to avoid any contact with other

people in the store, both customers and personnel. In cases when someone is already standing in front of the desirable products, the participants either show patience by waiting in distance or change their route and pick other products before returning back. Also, they incorporate the use of extra tools and store's infrastructures, such as self-checkout machines, to replace the interaction with people with machines. The use of such infrastructures in stores underlines the importance of the "systems of provision" (Lee, 2017) for the carriers' smooth performance of the grocery shopping practice during such situations.

*"At the self-checkout machines, the middle one is out of order. I used it before also, but I use it more often now because I feel safer. You know it's just me and the machine, no other people around me." - Part. 3*

The selfservice tools were used by the consumers before the pandemic as well, but a new meaning of using them has been added now. However, the participants seem to be cautious not only with the humans, but with the objects as well, mentioning that they try to avoid touching the different objects in the store, including the scanning machines, shopping bags and the products themselves. This indicates that consumers feeling of fear for infections include different types of material, such as objects, bodies and the store's infrastructure (Fuentes & Svingstedt, 2017).

*"I'm bringing my own bag a lot more and also don't touch too much. Like usually I'm grabbing things, checking the expirations date and stuff but now I'm just looking at it and not touch it, I'm just trying to move my head around it (laughs)" - Part. 4*

Bringing own shopping bag is applied as a protective measure here, to avoid touching the bags displayed in the store. However, this practice existed before as well, with the difference that it was promoted as part of reducing one's environmental impact. The meaning of this practice has changed now, as the consumers perform this practice by having as main purpose to protect their health, and not the environment. It is important to note here that even though a new meaning has been added, the previous meaning has not been eliminated, as the participants still believe that bringing their own shopping bags protects the environment. This is aligned with Shove et al. (2012) statement that after the change of a meanings in a practice, the previous meaning is not eliminated, but rather it exists overlapped by the new one.

This theme shows to a great extend how the feelings of stress and fear appearing during a disaster (Houston et al., 2015) affect the shopper' doings and stimulate their effort to eliminate the feeling of being in danger, as mentioned in Larson's and Shin's (2018) study. New competence, namely different ways to avoid other customers in the store, are developed through this process. One of these ways is the reduction of time spent in the store, which according to Nilsson et al. (2015) is not how the consumers normally perform major grocery shopping, which usually requires more time.

## More planning

In order to successfully perform the strategies outlined above, the participants explained that they need to plan their practice of grocery shopping in advance. This happens because some individuals stay at home and go out specifically for groceries. They also clarify that because their frequency of visiting the grocery store has decreased, they have to thoroughly plan their next visits taking into consideration aspects such as what to buy and how much. This aligns

with Nilsson et al. (2015) argumentation about major shopping trips requiring more planning. The same applies to the online grocery shoppers, who mainly conduct major shopping because of the limits of minimum purchases set by the online retailers. The participants describe the advertising leaflets as a useful material for getting inspired and checking prices, in order to choose which store can satisfy them in the best way. Lists are also mentioned as useful tools to ensure that all the products needed for the household are purchased and to reduce the amount of time spent in the store. It is important to mention here, that the existence of the shopping lists is not a novelty, however the meaning of them has changed now due to the circumstances they are used in.

*“I try to have a plan, try to not spend a lot of time in the store. I try to grab the product and go to the self-checkout. (...) Sometimes I went to the grocery store for inspiration, like let’s see what they have and buy something, but now I try to have a plan, buy what I need and go.” - Part. 9*

The above quote clarifies the appearance of planning in the participant's grocery shopping performance and underlines the disruption of the spontaneity, which is an important part of the grocery shopping activity according to Arnold and Reynolds (2003). Even though the existence of emotions like stress are sometimes related to the increase of impulsive buying (Sneath et al., 2009), the participants of this study explain that they have stopped visiting the grocery store just to “kill some time”, “look around” and get inspired about what to eat or cook. This could be explained by the fact that the consumers have rules to follow, which contradict the process of relaxing experiential buying. Taking into consideration Warde’s (2005) argumentations about the interdependence of the practices, this change in the shopping practice implies that the practice of cooking also becomes less spontaneous, with the shoppers planning this activity while making their shopping list. Additionally, for the less spontaneous participants the planning activity have sometimes worked the other way around. In particular, even though they used to make a list for their grocery shopping, the lack of some products in the grocery stores, caused due to Covid- 19 situation, made their shopping list be useless and required them to get inspiration from the existent products in the store.

*“We were writing a list and then we just had to throw it away because we couldn't buy chicken, we couldn't buy spaghetti, we couldn't buy oats, so we had to plan again. But we have certain dishes that we cook, so we were like: “ok, they have minced meat, they have salmon, lets buy that. We just had to eat something else.” - Part. 4*

Using the theory of Shove et al. (2012), this example shows how the object of shopping list lost its link and usefulness for the practice of grocery shopping when the material it was connected to did not exist in the store. This quote also shows how the household’s practices of eating and cooking were affected by the missing element of material, as the above participant couldn't cook the planned dishes.

This theme presents the disruption of the spontaneity being one of the ways to comply with the measures recommended during the Covid-19 crisis. This pointed out the performance of another activity of grocery shopping, the planning. However, it is important to underline that planning is not a new part of the grocery shopping activity, as it existed before as well, mentioned by Nilsson et al. (2015) as one of the characteristics of the major shopping trips. But during the disaster outbreak, the planning has obtained a new meaning, focusing on the



efficiency of the grocery shopping required in such situations. This is in line with Aylott and Mitchell (1998), who claim that planning is one of the ways for the consumers to improve a stressful shopping process.

## Introducing new rules to follow

The participants' doings and activities during their grocery store visits are also highly affected by the different signs provided and communicated in the grocery store. Being already concerned about their safety, the interviewees described that they follow the recommendations of the retailers and use the hygiene material provided to them. This goes in line with Aylott and Mitchell (1998) who explain that when trying to enhance a stressful situation, the shoppers tend to rely on the functional aspects of the store. Following the signs, they mention to remember keeping distance when they think it is necessary and standing on the indicated marked areas, which ensures the required distance among the customers waiting in lines. They also use the provided hand sanitizers and plastic gloves, not only for their own safety, but for others as well.

*“In stores where they provide hand sanitizers, I use them because it feels nice and respectful for other people. I try not to touch things now, I touched everything a lot, especially with fruits and vegetables, to make sure that I was getting nice and fresh one. But now it feels stupid because I could have the virus without knowing it and then someone else could get it from me, or vice versa. I use plastic gloves if they provide them.” - Part. 9*

These doings are new for the participants, because instead of freely moving in the store as they did before, now they have to consider their own and others health. According to Shove et al. (2012), the bodies are part of the material element in practices and the above results indicate that a new meaning is combined with this element, namely the meaning of being protective. Also, in order to acquire the competence to carry out their shopping activities in a proper way, the participants accept the offered assistance from the store as well as apply extra activities derived from other sources, such as wearing face masks. Normally the participants know how to perform the grocery shopping practice and receive guidance mainly for their orientation in the store or marketing purposes (Ebster and Garaus, 2011). Despite the inspiration and assistance from various sources, the participants apply the strategies they judge as the right ones.

*“I keep my rules in my head, like don't touch, do your business and go out. Because not all the people respect the distance or are very careful. And I trust myself more than I trust anyone else.” - Part. 2*

This underlines the importance of trust in the authorities and other sources which provide relevant information about the disaster (Pan American Health Organization, 2009). Moreover, the interpretation of the acquired information leads the participants to new practices, related mostly to hygiene and cleanliness.

*“Every time I buy from the supermarket, I wash the bottles, yeah, because I've heard that it stays on the bottles. My husband bought some cherry tomatoes in plastic, usually I leave them like this, but now I put them in a different pot and throw away the plastic. I can't do the same with the milk, but I wipe it before putting it in the fridge.” - Part. 2*

According to the interview, the respondents have added extra hygiene related activities in their routines, which derive from the Covid-19 situation and are closely connected to the practice of grocery shopping. Some of these activities pre existed but with a different meaning, such as bringing own shopping bags, while others are new parts of the grocery shopping practice, for example avoiding touching the products and cleaning the purchased products before using them. Moreover, there is an increased concern about the cleanliness of the exposed products, such as those from bakery and vegetables sections. For this reason, some consumers have switched to buying these products in packages instead of in bulk. One participant commented about this change contradicting the concept of sustainability. Similarly, as with the use of own shopping bags analysed before, the new meaning of striving for safety as a response to feelings of stress (Larson and Shin, 2018), has overlapped the meaning of sustainability. But this time it caused changes in another element of the practice, the material which in this case is the package of the product, which support Shove et al.'s (2012) argumentation indicating that any changes in the elements could lead to changes in other elements resulting in a differentiated practice.

### Filling the basket in a different way

As it is described in the interviews, most of the participants bought supplies either to prepare for an upcoming serious crisis or because they were afraid that the panic shopping conducted by other consumers would leave them without necessary goods. This is in line with Gerhold et al.'s (2019) research, as the individuals get involved in preparedness practices when they believe that the food supply is not guaranteed for all. When shopping supplies, the interviewees described that they generally give priority to basic products, however the interviews revealed that actually the choice of "basic products" depends on the consumer's cultural backgrounds as well as cooking and eating habits. The close connection of the element of material of the practice of shopping with the competence of "knowing how" to consume it later (Shove et. al., 2012), is visible in this example. Similarly with other changes described above, this change is initiated when the meaning of the practice changed, namely when the purpose of the grocery practice started including the aspect of preparedness.

Additionally, the choice of the products for preparedness, can depend on the way that the participants got informed about how to deal with a critical situation (Levac et al., 2012), with the participants following advices from people having already experienced the Covid-19 situation in another country or the authorities.

*"Some years ago, all the Swedish households got a leaflet called "When the crisis comes" and it advises which groceries is good to have home if a crisis comes. For some stuff we said: "ok sure, we can buy a package of beans or pasta just to have it home". (...) We sometimes eat beans, but I would say that I bought beans just because it was proposed for the crisis." - Part. 6*

The participants tend to buy durable products or, in case of fresh vegetables, more durable alternatives. Some of these products are not even part of the participants' everyday lives, rather they are new elements of material, introduced because the meaning of the practice has changed (Shove et al., 2012). Also, the participants described that they stock their supplies at home, which includes activities such as freezing of products or creating some storage space in the house for these goods, which require extra infrastructures, which are also part of the

element of material (Shove et al., 2012). Based on how the retailers have managed the Covid-19 situation so far, the participants consume the stock as they realize that they still can purchase the products, or according to Becker et al.'s (2013) explanation, they seem to perceive the risk of not being able to purchase the products, as low. At the same time, some of them keep completing the supplies after using them.

*“We try to keep some tomatoes or some beans at home, but we use them, don't keep them in the storage. In the beginning we didn't know what to expect but now I see that we still can normally go to the grocery store, we are more relaxed, and we can use the stuff we have at home and buy some more stuff if we need it. I have started cooking a bit more vegetarian stuff probably because of the beans.” - Part. 6*

Through the above example it is visible that the practice of grocery shopping has affected the participants' cooking practices because of the introduction of one new element, the beans. The change occurred because both practices have that element in common (Warde, 2005). At the same time, it is possible for the practice of cooking to affect the practice of grocery shopping because of the changes in the individual's cooking activity. This shows how changes in these two practices, being part of a bigger setting (Warde, 2005), ruined the balance in their interaction, which required other extra changes to make the process work again.

*“Now I'm cooking in my room and not in the shared kitchen, so I avoid products that need to be fried. Now I prefer to cook pasta and food like that.” - Part. 3*

Also, changes in the ingredients occur due to external factors, for example when the participants cannot find specific products, which are on shortage at the time. These are the economical and societal consequences of a disaster, described by Okuyama (2007), occurring due to disruptions in transportation and high demand for some products. As a result, the participants mention to buy alternative brands or even alternative products to replace the missing ones. They describe that they don't care about the brands as much as before and because of this it seems that they are more willing to try new brands. When buying bigger amounts of products, the participants either preferred the same quality of the products as before or chose the cheaper alternatives. In some cases, the individuals switched to more expensive products brands or those with sustainable labels, not because they looked for higher quality but because these were the only products left in the store.

*“The feeling of walking between empty shelves and people with gloves and masks was weird, a bit scary, you felt that something was wrong. We were late and many shelves were already empty. And we had to buy more expensive products, like more fancy brands and ecological ones, because the normal products were out of stock.” - Part. 5*

Based on the above, even though these products were incorporated in some consumers' grocery shopping practice, their meaning of satisfying specific needs, for high level of quality for example, was not incorporated in the practice (Shove et al., 2012). Instead, they were used as alternatives to the products with the meaning which the carriers of the practice were seeking for (Hargreaves, 2011).

Additionally, the participants often referred to the economical aspects of their grocery shopping, a topic which is expected to occur during a disaster according to Okuyama (2007), with some of the shoppers estimating that their budget for grocery shopping have increased during the Covid-19 outbreak. As explained in the interviews, the reasons are mainly the increased number of products purchased as well as the participants' inability to go and choose between different cheaper grocery stores. Now, the participants try to prioritize their spending on necessary products because their income has been reduced or because they, in general, feel insecurity about the future. Such insecurities, leading to more conservative way of shopping, often occur when the societies deal with economical problems, according to Sharma's and Sonwalkar's (2013), which explains the consumers' effort to obtain cheaper products when possible.

This theme illustrates that the emotional consequences of the Covid-19 pandemic, including stress and uncertainty about the future, led the participants to change their patterns of buying products. The feeling of risk (Becker et al., 2013) led the practice of grocery shopping be carried out as part of the preparedness process and required the purchase of products which would be parts of both practices. Based on Shove et al.'s study, the shared elements of both practices, which are the products, were selected according to a meaning that would serve the goal of both preparedness practices as well as the grocery shopping practice. The attributes that are now in focus are mainly the necessity and the durability of the products, which except for being part of the preparedness process, also indicate some similarities with patterns followed during economic insecurities (Ang et al., 2000). However, it is important to note that the more conservative way of shopping during this disaster does not allow the consumers to visit cheaper store formats (Ang et al., 2000), because the main focus when visiting a store is the accessibility, as described above.

## Participating in grocery shopping

The last identified change in the practice of grocery shopping conducted during the Covid-19 outbreak, is about the individuals participating in this activity, the "carriers of the practice" as they are named by Reckwitz (2002). As the everyday lives of the participants have changed, the performance of the household's grocery shopping has been adapted accordingly.

*"Now we go shopping together more often because we buy food for one week, so we need two people to carry things. The groceries are quite heavy for one person to carry now, so we go together more often." - Part. 1*

This quote shows how a change in the element of material in the practice required a different competence to carry out the activity (Shove et al., 2012), which led to participation of extra carrier to perform the grocery shopping. Also, taking into consideration the social aspect of the grocery shopping (Elms et al., 2006), the grocery shopping can also be conducted simultaneously by several persons, who help each other. Another factor leading to changes of the carriers performing the practice, is the disruption of other practices, such as working or studying, which led to changes in their everyday lives. For example, when the amount of time spend at home changed for some individuals, the grocery shopping was then performed by those who were available and willing to do it, based on the new circumstances. However, often, the practice of grocery shopping can be perceived as chore (Aylott and Mitchell, 1998) meaning that in such cases the participation of the carriers is based on practical reasons, such as the convenience of accessibility or the amount of free time. During situations like

Covid-19 pandemic, which are stressful for the consumers (Houston et al., 2015), the grocery shopping is mainly seen as chore (Aylott and Mitchell, 1998).

*“When I’m going to the supermarket, I don’t take the kids with me anymore, because they have this habit of touching everything and I prefer to avoid this and leave them home or wait outside. (...) My husband is the brave one. The kids stopped visiting the supermarket since it got serious with the corona and people started dying. Now he is going more often than me, this has changed. Afraid or not, he is going. (laughs)” - Part. 2*

This quote indicates that the visits to the grocery store is a stressful situation for the consumers when a deadly virus is threatening people's lives. For the performance of the shopping activity under these circumstances the above participant argue that a more suitable carrier is the one who can properly follow the safety measures, which makes the grocery store an inappropriate place for kids. Also, it is implied that the “strong” individuals are more suitable.

## Discussion

The findings of this study showed that in order to successfully carry out the practice of grocery shopping during a disaster outbreak, the consumers are now restricted by the recommendations introduced by authorities, the additional information and knowledge obtained from various sources as well as the emotional stress they experience. Due to the fact that the practice of grocery shopping is carried out as part of the consumers’ daily routines, its changes are aligned with the disruptions occurring in the performance of their everyday life. In particular, the everyday life is now restricted within a frame of necessary measures and extra precautions which aim to control the extent of the disaster as well as to protect the individuals’ health. The findings of this study revealed, that as a way to comply with the measures for the safe performance of their everyday life, the consumers make a significant effort to practice social distancing and follow key hygiene rules. As part of this effort, they avoid visiting the grocery stores by reducing the frequency of visits or by switching to different store formats or retailers. Factors, such as convenience, frequency, accessibility and crowding of the grocery stores, play an important role in how they chose to perform the grocery shopping practice. Also, supporting this practice with additional activities, such as more planning and applying safety rules, gives the opportunity to consumers to increase their shopping efficiency. Moreover, as part of consumers’ effort to ensure a suitable food supply for the critical situation, the products obtained through the practice of grocery shopping have changed. Finally, particular changes in the everyday life as well as the increased requirements for the successful performance of grocery shopping, led to changed participation in the practice, with the individuals either increasing or decreasing the level of their involvement.

By using the practice theory approach, in order to explore these changes occurring in the practice of grocery shopping during a disaster, this study has developed a deeper understanding of the interrelationship between the introduced restrictions and the consumers’ shopping practices, as these are materialized in the disrupted normality of the everyday life. Thus, this study makes a significant contribution to the disaster management research field by providing a descriptive depiction of the individuals’ grocery shopping routines performed during an ongoing disaster and focusing on a setting of the individuals doings. Also, this

research contributes to the grocery shopping field, by illustrating the complexities of its performance during a disaster outbreak.

The consumer's shopping patterns, identified in this research, indicate that the grocery shopping practice is conducted mainly for functional purposes, while the experiential grocery shopping practice is usually disrupted. These findings contradict the existing literature of grocery shopping in stressful situations, which describes that consumers keep performing hedonic visits to grocery stores as a way to release stress (Aylott & Mitchell, 1998; Larsson & Shin, 2018). The difference in the results could be explained by the nature of the disaster, meaning that in case of a pandemic, the performance of the grocery shopping incorporates safety measures, such as social distancing, which contradicts the social aspect of an experiential visit. Thus, in such situations, a hedonic visit could cause even more stress to the shopper instead of releasing it.

Moreover, the findings of the study contribute to the online grocery shopping literature (e.g. Hand et al., 2009), by indicating that its advantage of convenience is now appreciated by customers seeking for safety during a disaster. Even the disadvantages of the online shopping, such as long delivery time, inability to touch, delivery costs etc, are less important now for the shoppers. Also, regarding the inability to touch and feel the products, it seems to not be a problem as the consumers try to avoid doing this even in the physical stores. Additionally, this study highlights the consumers' focus on major grocery shopping trips, as a way to reduce their frequency. However, the visits conducted during a disaster seem to be different from the normal ones. When choosing the most suitable store format, the consumers prioritize the accessibility by choosing to visit close-by convenience stores, which, as described in the grocery shopping studies, is not a common choice for major shopping purposes. As the major trips require it, the consumers conduct more planning, but unlike normal grocery shopping visits, they try to spend less time inside the store. However, it is not clear if they actually reduce the duration of their visit, because, at the same time, they lose time when they try to avoid any contact with other people and objects in the store. Finally, in agreement to the buying patterns described in the disaster management literature, the consumers change the products they choose to buy, mainly because of the preparational processes being carried out during a disaster (Russell et al., 1995) as well as its expected economic consequences (Okuyama, 2007).

Furthermore, in order to visualize how the above changes in the practice of grocery shopping occurred, a closer look to this practice through the lens of practice theory is necessary. Based on this, this study also contributes to the field of practice theory, by illustrating how practices are disrupted and changed because of an unexpected phenomenon, such as a disaster. Being in line with the existing literature of practice change (Shove et al., 2012), this study shows that the grocery shopping practice is not the same when a disaster breaks out, because the restrictions under which it must be performed require a different combination of meanings, competence and material. The changes of the grocery shopping practice are mainly initiated because of the introduction of new meanings including the purpose to stay safe, eliminate the consequence of the disaster and relieve the feelings of stress. In order to be able to achieve these goals, the consumers having no previous experience and knowledge, seek for assistance in authorities' recommendations as well as in relevant information provided by other formal and informal sources. In this way they acquire the required competence to successfully perform the grocery shopping practice. During their shopping visits to grocery stores, the

consumers follow the signs provided by their environment as way to “know how” to move and use their own competence to solve upcoming problems, like changing routes to avoid other customers. Moreover, the element of material used in the practice of grocery shopping is central for its performance. The combination of changed purposes and competences introduce new products in the consumers’ baskets, for example when a different assortment of products is brought through the process of preparedness. Material, such as devices and store’s infrastructures support the new meanings as well as the competence to achieve them, however extra competence is required to use those infrastructures. Similarly, the meaning of some material changed during the disruption and changed performance of grocery shopping. For example, such materials are shopping bags brought from home and packaged products, where the meaning of sustainability seems to be overridden by the meaning of safety.

Additionally, this study is also in line with the practice theory literature examining the practices as a bigger setting of interconnected practices (Warde, 2005). The findings of this study indicate that changes in the grocery shopping practice during a disaster may also occur because of disruptions, changes or introduction of other practices. The practice of grocery shopping adapts, when the bigger setting of the interlinked everyday practices, such as traveling to work, cooking, cleaning or eating, are being changed because of the disaster. These practices usually share common elements, which through a chain of interactions are being changed until they achieve a balance for the best possible way of the execution of daily routines. At the same time, through these connections, changes can also be transferred the other way around, meaning that the practice of grocery shopping can influence and cause changes in the other practices.

Finally, it is important to note, that some of the changes occurring in the practice of grocery shopping may remain even after the end of the disaster, while some of them will change back. In particular, the changes occurring in the practice of grocery shopping due to the interaction of the elements are unlikely to be permanent, as the phenomenon causing these changes is temporary. For example, sometimes a new meaning was given to material, such as in case of own shopping bags being brought to the store not because it is a sustainable way of acting but for safety and hygiene reasons. In the future, such products will possibly return to their previous meaning, of sustainability for example, when the safety and hygiene reasons will not be a problem anymore. Similarly, with the shortages of products in the grocery stores being a temporary situation, the practice of stocking them will possibly return to a normal level as soon as the products return on the shelves. However, changes including trying new products or services, e.g. online shopping, could become part of consumers’ everyday routines, if they get used to them and value the advantages these offer. Even though it is hard to make predictions in advance, the findings of this study indicate that the changes in the practice of grocery shopping were initiated when the meaning of safety occurred, which could lead to assumption that many changes directly connected to this meaning will not stay forever. Also, many changes, caused by the interactions of connected practices, will possibly change back when the performance of the normality of the everyday life will be possible again.

## Conclusions

The purpose of this research study is to explore how grocery shopping is carried out under restrictions and measures occurring during a disaster, and to identify what has changed. For the achievement of the purpose, this research project has been guided by the following research question: *How is the practice of grocery shopping disrupted and changed during an ongoing outbreak of a disaster?*

The findings of this study provide a detailed illustration of the grocery shopping practice being performed within a network of changes in the consumers' everyday routines, the grocery store environment as well as the socio-economical settings. Using the practice theory approach to explore these changes led to revelation of the mechanisms which play an important role in the process of practice change. The changes occurring in the practices were not offered an adequate amount of time to be gradually absorbed, because of the sudden nature of a disaster, with a result the practices and elements to interact, affect and cause changes to each other until the balance between them is established. This research shows that, during a disaster outbreak, the normal way of practicing grocery shopping is disrupted not only as another part of the disrupted everyday normality, but also because of the introduction of new restrictions following the disaster. Such restrictions are the need to practice social distancing and to apply additional hygiene routines. Hence, it provides valuable information to the research field of disaster management (e.g. Kohn et al., 2012; Levac et al., 2012), by describing the grocery shopping as practice which cannot be completely interrupted, because of the individuals constant need for food and supplies. Thus it requires different skills and competence for its performance, such as evaluating the existing information and guidelines and finding ways to effectively apply them while performing the grocery shopping. Also, with the introduction of the meaning to stay safe and limit the spread of the disease, which is supported by various recommendations, the performance of the grocery shopping practice required the adoption of different strategies. Such strategies include avoiding visiting the grocery stores, avoiding any contact with other people in the store, planning, buying suitable for the circumstances products and following different guidelines.

An interesting change, for the field of grocery shopping, is the disruption of hedonic visits to the grocery stores, which indicates that when acting under specific restrictions and rules, the grocery shopping is conducted in a more rational way. Another significant finding of this study is the one clarifying the switch to major grocery shopping, which in the way it is performed now is not in line with what the consumers are normally expected to do during major shopping practices. In particular, even though conducting major shopping trips, the consumers prioritize the factor of accessibility when choosing the grocery store, and visit mainly close-by convenience stores. Also, it is important to note the switch to online grocery shopping as a convenient solution for the conduction of grocery shopping while taking into consideration the restrictions of the disaster. Finally, the findings of this research indicate that most of the changes in the practice of grocery shopping are initiated by the introduction of the meaning of safety and the disruption of the everyday life. Thus, taking into consideration the temporary nature of the disaster, many of the changes will possibly change back when the everyday life returns to its normal. Based on this, the findings of this research provide additional knowledge to the field of practice theory change (Shove et al., 2012) by exploring



changes in practices occurring because of sudden disruption of the everyday life from a temporary phenomenon.

## Managerial implications

The findings of this study suggest various managerial implications. Identifying how the practice of grocery shopping is changed during the restrictions and measures of an ongoing disaster is significant for the retailers' effective management of such situations. Many changes described in this research can affect the conditions for grocery retailers. For example, it is important for them to minimize the stress and ease the process of following the recommended measures for their customers, by guiding them through the grocery store in the best possible way. The signs placed in the grocery stores seem to arise customers' awareness of the necessity of the measures by reminding them to comply. Also, in case of the online grocery retailers, the results of this research showed that except for convenience and accessibility, the circumstances themselves can sometimes lead the consumers to online grocery shopping. While such circumstances are not under retailer's control, this information can help them to identify such circumstances and develop a better target advertising.

Additionally, by examining the findings of this study, the grocery retailers can discern which products are in low and which in higher demand. This could help them to be prepared to manage the increased demand for specific categories of products, by taking into consideration the elements included in the practice of grocery shopping as well as other practices it interacts with. For example, this study indicates that the changed practices of cooking, cleaning and stocking have led to changes in the products the consumers want to buy, which means that retailers should expect higher demand for products involved in the hygiene practices as well as for durable food that can be stocked.

Moreover, this study indicates that convenience stores might experience an increased number of visits and demand for variety during a disaster. However, it is important for the grocery retailers to remember that the situation of a disaster outbreak is temporary and that not all changes in the grocery shopping practice will stay when things go back to normality. Consequently, they need to carefully consider the consequences of any development of new strategies. In particular, the introduction of new strategies to satisfy the consumers' current needs, such as changing the variation or the quality of the product assortment, might confuse the customers and make the retailer be more vulnerable in comparison to its competitors who had more experience in such strategies. In general, by possessing information about how the patterns of the grocery shopping are changed and developed can help the grocery retailers to better evaluate their choices and design their strategies.

## Limitations and future research

It is important to note that, while the execution of this research during the disaster outbreak provided with vivid descriptions of the situation, the findings of this study may not include the whole picture of the disaster which was still evolving after the execution of the study. In other words, this study might have missed any additional measures or facts that were introduced during the disaster, but after the conduction of this research. A following study, covering this gap, could provide with insights of how the practice of grocery shopping continued to be carried out and experienced by the consumers during the period of the

Covid-19 pandemic. Additionally, the findings of this study can only lead to speculations of predictions about which of the occurring disruptions in the practice of grocery shopping will remain and which ones will change back. Based on this, a future research study, exploring how the practice of grocery shopping returns to normality after the end of the disaster, could contribute with knowledge on this subject. Moreover, taking into consideration the fact that this study incorporates only the situation as it evolved in Sweden, where the policies applied were not as limiting as in other countries, it would be interesting to explore the changes in the practice of grocery shopping in cases where the measures of practicing social distancing are forced. Such as in countries where quarantine and curfew were applied.

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## Appendix A: Interview Guide

### **Introduction:**

- Ice breaking
- Background, interests, career, hobbies
- Description of household

### **Ongoing situation:**

- Discussion about their everyday life
- Pandemic description
- Interaction with media
- Trust in authorities
- Any relevant previous experience?

### **Grocery shopping:**

- Last grocery shopping vs typical grocery shopping
- Impact of restrictions
- Did you prepare?

### **Grocery store:**

- Online - offline
- Activities before and after the visit
- In-store activities
- Discuss the photos, if any

### **Change in other routines:**

- Cooking and cleaning
- Other?

### **Closure:**

- Anything to add?
- Thank you!

## Appendix B: Material from observations in grocery stores



