LUND UNIVERSITY FACULTY OF SOCIAL SCIENCE

Master Thesis

No good deed goes un-scripted

- An Ethnographic Study on the Sustainable Smartphone Application Karma

By:

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Abstract

Noting a need for a closer understanding of the discrepancy between the actions that sustainable smartphone applications encourage and the actions that the users perform, this thesis explores the implications for sustainable consumption practices. This thesis takes a sociological approach to markets, focusing on three key concepts (*market devices*, *socio-technical scripts*, *qualification*) to answer two questions: 1) how consumer actions are promoted and enabled in the popular consumer food-waste management application Karma; and 2) how consumers translate the actions that the application promotes. To answer these questions, an ethnographic method was applied: the content of the Karma application was observed, and interviews with 10 Swedish users of the application was conducted. The results show that digital devices are highly complex in changing consumer practices, as the way in which consumers translate actions depends on their routines and preferences in the context of food-shopping, but also how they react to their own actions. To describe this phenomenon, this thesis suggests that consumers engage in a "post-script assessment" of their own actions, which can serve to both reinforce and disrupt sustainable consumer actions. Managers are encouraged to take this phenomenon into account when promoting and enabling consumer actions through digital devices.

Keywords: Economic Sociology; Market studies; Ethnography; Digitalization; Sustainability; Food-shopping; Market Devices; Socio-technical Scripting; Qualification

Acknowledgements

Table of Contents

1. Introduction

The aim of this chapter is to introduce the topic of this thesis and to outline the research field for studying the topic. The research field will be problematized and broken down into an overall aim followed by two research questions. The chapter ends with presenting the relevance of this thesis and delimitations will be presented followed by an outline of how the thesis is structured.

1.1 Sustainable consumption concerns

Ever since the early 1970s, sustainable consumption has been advocated by public policy and environmental activists worldwide (Holt, 2012) and in recent years, sustainability concerns within consumption have received increased interest in various policy and research agendas (Geels, McMeekin, Mylan & Southerton, 2015). Activities performed by private actors account for a large and increasing share of total environmental impact as a result of increasing consumption (Thøgersen, 2014). Consequently, consumer behavior that leads to unsustainable consumption practices also adds economic value to businesses (Haanaes, Michael, Jurgens & Rangan, 2013). Yet, for a sustainable future to materialize in practice, everyone needs to incorporate sustainability into their lifestyles (Mont, Neuvonen & Lähteenoja, 2014). The term sustainable consumption has been widely used to demonstrate how consumers weave in environmental issues into their shopping routines and how these concerns also shape their preferences. As such, consumers play a key role in meeting national and international targets for more sustainable lifestyles with fewer environmental consequences (McDonald, Oates, Alevizou, Young & Hwang, 2012). Nevertheless, there is almost no consumption activity that is completely free from the impact on the environment (Thøgersen, 2014). Therefore, while sustainability requires responsible actions from consumers, businesses must also incorporate knowledge of sustainability into their promotional material to reach consumers (Heat & Chatzidakis, 2011; Kong, Ko, Chae & Mattila, 2016). As such, policymakers have recognized that the promotion of more sustainable consumption patterns is essential for achieving the goal of sustainable development in the future (Scholl, Rubik, Kalimo, Biedenkopf & Söebech, 2010). Unsustainable consumption practices introduce major concerns due to their damaging impact on the environment. How these concerns are framed by companies can determine consumers' perceptions of how important it is to deal with these issues. In other words, for environmental issues of consumption to appear as problematic, the issues and concerns need to become visible in various ways to the different actors involved so that the right solutions can be implemented (Raippalinna, 2020).

1.2 Digitalization as a possible solution to promote sustainable consumption

Sustainability concerns within consumption have received a lot of attention in the literature during the past years which has raised important questions on how solutions can be designed to deal with the problem. Consequently, literature has found that digital technology has a great impact on consumption patterns (Cochoy, Hagberg, McIntyre & Sörum, 2017). Retailers' engagement with sustainable consumption reflects a wider trend of corporate digital interventions (Welch, Swaffield & Evans, 2018). Social media and smartphone applications not only encourage individual consumption but also influence how consumers communicate and inspire others to consume (Cochoy et al., 2017). Digital interventions and technical tools have become important for companies trying to change consumers' behaviors as digital platforms and technology enable a relationship between consumers and companies (Hedin, Katzeff, Eriksson & Pargman, 2019). In fact, the use of technology to support consumers to change their consumption practices has been identified as a key tool in reducing environmental issues as they can assist consumers in their daily shopping practices and provide information that fosters consumer knowledge (Schanes, Dobernig & Gözet, 2018). In the words of Cochoy et al. (2017), consumption practices are *mediated* by digital devices. However, it is the final actions of consumers that generate consumption activities. How can companies then reinforce sustainable consumption practices? For companies, it is easy to capitalize on offering consumers what they want. However, it usually comes with sustainability implications such as pollution. Therefore, companies need to inspire consumers to understand what is best, not only for them but also for the whole society in order to create a sustainable consumer. When sustainability issues are combined with digitalization, there is great potential in giving consumers access to information that can help them to engage in sustainable consumption practices.

1.3 Digitalization of sustainability issues

Digitalization of sustainability issues has been the subject of considerable and increasing examination among different scholars. Empirical work has found that digitalization can help sustainable communities to more effectively achieve their goals. When people in online social movements form digital ties with each other, individual consumers can reinterpret the actions of the movement and make them public, such as engaging in sustainable consumption (Parigi & Gong, 2014). As such, digital platforms enable sustainable communities to reach their political intentions and spread them broader (Hoelscher & Chatzidakis, 2020). Digital forms of

sustainable consumption have also been studied from the perspective of "prosumption" where consumers can give away and receive another item of the same type of value in return (Eden, 2015). When consumers have a growing concern for environmental issues, sharing economy platforms or collaborative consumption activities have been deemed essential for sustainable consumption practices (Albinsson & Perera, 2012). In addition to this, sharing economy devices promote a more sustainable mode of consumption (Mercier-Roy & Mailhot, 2019). Earlier studies have also explored the emergence of online forums and environmental conversations among its users. When consumers negotiate and make arguments about sustainability, those arguments are greatly influenced by their social identity and political views (Cooper, Green, Burningham, Evans & Jackson, 2012). Consumers that share their meanings and negotiate about sustainability in online forums also facilitate the maintenance of sustainable consumption practices and consumers as active citizens to emerge (Rokka & Moisander, 2009). In addition to that, Svenson (2018) has investigated how these consumer discourses translate into practice and found that the commitment toward sustainability in these communities had to be performed in everyday practices to take effect. Digitalization has also been argued to be effective in enhancing consumer awareness by making corporate ethical practices more transparent (Graham & Haarstad, 2011). When consumers are doubtful about how companies act, digital tools that provide information on sustainable aspects of production and products can be utilized to work against (or to overcome) consumers' doubts about the company's actions (Atkinson, 2013).

While the scholars mentioned above have focused mainly on conversations and interactions between consumers in online communities for sustainable consumption, other scholars have examined closer how sustainable consumption is shaped through the interaction between technology and consumers. Recent studies have looked at how digitalization can both enable and shape (Fuentes & Sörum, 2019) but also constrain sustainable consumption practices (Humphrey & Jordan, 2018). When providing 'scripts' (i.e paths of action) in relation to sustainability that consumers should take, digital devices work as active agents of change (Fuentes & Sörum, 2017). In addition to enabling and shaping ethical consumption, digital devices can also be 'scripted' with various design- and functionality techniques to direct consumers to perform various sustainable practices (Sörum & Fuentes, 2016). Hansson (2017) found that sustainable smartphone applications work as ethical choice prescribers when they both promote and shape sustainable consumption. Through their various design elements, sustainable smartphone applications assist consumers in making informed choices in relation

to sustainability. In that sense, smartphone applications can be seen as market devices that provide paths of action for consumers to take. Digital devices are therefore designed to both promote and enable various forms of sustainable consumption (ibid). Similarly, they can also work as an arrangement and expression of consumers' ethical selves (Fuentes & Sörum, 2019). Like Hansson (2017), Soutijs (2019) also argues that smartphone applications, as consumerist moderators, reconfigure the relationship between the consumer and the market they produce. Smartphone applications can construct consumer engagement by inscribing sustainable smartphone applications with new forms of product qualification based on specific orders of worth and value.

A few studies have also investigated failures of digitalization and sustainability issues (Fuentes, 2019; Sörum, 2020). For instance, sustainable smartphone applications are scripted to configure consumers. Yet, it is difficult to adjust smartphone applications to specific situations and consumers (Fuentes, 2019). If consumers cannot match their ongoing identity projects with the practices that sustainable smartphone applications promote, then they are likely to reject such applications (Sörum, 2020).

1.4 Problematization of research field

As the above outline of the research field suggests, some scholars recognize that interaction between consumers online challenges existing consumption ideologies, and new ethical values are constructed which facilitates ethical consumption practices. While these studies focus on the interaction *between* humans facilitated by digitalization and how they enable sustainable consumption, other scholars look more closely at the activity that occurs when humans interact *with* technical devices, such as sustainable smartphone applications. These studies mostly focus on the potential or the usage by consumers. Yet, there is still a need for more studies that seek to understand what can go wrong when consumers and digital devices interact. Although previous studies (e.g. Humphrey & Jordan, 2018; Fuentes & Sörum, 2019) have shown that digital smartphone applications can facilitate and constrain sustainable consumption practices it is also important to address how and under what conditions consumers do not translate the actions in the way that the creators intended. This is an important insight for the practical application and implementation of sustainable ways of smartphone shopping. As such, this thesis will contribute to the emerging field of research of digitalized sustainable consumption by examining the discrepancy between the consumer actions that sustainable smartphone

applications promote, and how those actions are translated by the users. Therefore, this thesis will study the smartphone application Karma, an application that aims to engage consumers in a sustainability issue: the reduction of food waste. Literature has suggested that material objects should be considered as actors rather than in the background of human activity (Mercier-Roy & Mailhot, 2019), therefore, the aim of this thesis is to *understand the limits of the role of sustainable smartphone applications in reinforcing sustainable consumption practices in the context of food waste*. Two research questions will be investigated further:

- How are consumer actions promoted and enabled in the Karma application and on Instagram?
- How do consumers translate the actions that the application promotes?

Promoting in this sense refers to how Karma, through the application and on Instagram encourages consumers to perform certain actions. The promoted actions are the actions that Karma wants the users to take; the translated actions are the actions that are actually performed by the user. Studying the smartphone application Karma as a market device allows for an understanding of how it can make consumers act differently and change their current practices. However, it must also be noted that practices can be changed in ways that were not intended by the creators of the script (Fuentes & Sörum, 2019) which motivates the need for understanding how consumers translate the actions that sustainable smartphone applications promote. Several earlier works on ethical smartphone applications (see for example Hansson, 2017; Fuentes & Sörum, 2019; Soutijs, 2019; Fuentes, 2019) combine literature on the sociological approach to markets (market studies) with ethnographic approaches in order to study ethical smartphone applications. This motivates both the choice of method and theoretical formulation of this thesis which will be explained further in chapter 2 and 3.

1.5 Relevance of this thesis

By answering the above stated research questions, this thesis will shed light on the limits of smartphone applications in reinforcing sustainable consumption practices in the context of food waste. The thesis will therefore in particular look at how these devices are 'scripted' to have consumers change their food-shopping practices into consumption practices that aim to reduce food waste. What matters here is how consumers translate these 'scripts' and put them into practice. By doing this, this thesis will contribute to an emerging field of research within

digitalization and sustainability within the area of consumption studies and highlight the complexity of devices in changing consumer practices.

The results of this thesis can be valuable for sustainable smartphone application designers who wish to engage consumers in and change their current practices in the context of food-shopping to become more sustainable. It could enable such companies to introduce several improvements that will increase the efficiency of these applications. Within the field of Service Management, this thesis is relevant because the integration of technology into service businesses can help to improve efficiency of those services.

1.6 Delimitations

This thesis will look at what actions are promoted within the sustainable smartphone application Karma and its Instagram material and how these are facilitated within the application. The thesis will interview Karma users to understand how they translate the promoted actions into practice. Thus, this thesis concerns the actions that these devices produce and how those actions are translated by users. As such, it will focus on how people who did not design the script will interpret it, which means that in this thesis, it is a limitation that none of the designers of the application will be interviewed. This could possibly affect the outcome of the research as it is hard to know the actual intentions behind the script without interviewing its creators.

1.7 Structure of this thesis

This thesis will be structured in the following way: the next chapter, the theoretical outline, will present previous research that is used in order to guide the analysis of this thesis. The chapter will introduce three key concepts that will be applied for an analytical reflection of the empirical material. The methodological considerations will afterwards be presented to give a transparent overview of the conducted study and explain why particular methods were chosen. The analysis will be divided into two chapters. First, it will answer the first research question followed by the next chapter that will deal with research question number two. Apart from answering the research questions, these chapters seek to reflect upon the empirical material with help of the theoretical concepts. Lastly, the concluding discussion will summarize the main arguments from the analysis chapters and provide a conclusion followed by managerial implications, theoretical contributions, limitations, and a presentation of possible further research.

2. Theoretical Outline

The following chapter presents the theoretical foundation of this study. First, it presents a sociological approach to understanding markets, and then explains the key concepts market devices, socio-technical scripts and qualification.

2.1 The sociological approach to markets

"Social studies of markets" have emerged as an interdisciplinary field, drawing from the fields of anthropology, economic sociology, cultural studies, and science and technology. The field has become important for the understanding of markets as a product of context, sociological, cultural and institutional aspects (Frankel, Ossandón & Pallesen, 2019).

The new economic sociology emerged as a critique against the neoclassical economic theory. It argued that economic action is embedded in structures of social relations rather than carried out by atomized actors (McFall, 2009; Granovetter, 1985). It follows from this idea that markets and organizations should be studied by following relations that frame interactions (McFall & Ossandón, 2014). This reflects an understanding of economic life and behavior as something more complex than the understanding put forward by neoclassical economic theorists (Cochoy, 2007). In this sense, economic sociology is an attempt to humanize the markets. New economic sociology reduces markets to three human dimensions: networks, ideas, and institutions, but does not account for the role of objects and technologies that frame these markets (Cochoy, 2007). According to the new "new" economic sociology (NNES), researchers should take the material dimension — the role of market devices — into consideration (Callon, Méadel & Rabehariosa, 2002; Cochoy, 2007; Cochoy, Trompette & Araujo, 2016). In other words, NNES paradigm extends the social dimension of markets to include the technological embeddedness of markets (Cochoy, 2007; Callon, 1998).

Consumers are not born with a calculative behavior, instead, they are equipped by marketers to perform calculative actions (Dubuisson-Quellier, 2013). Market studies should therefore not be limited to only studying the networks and relations that tie economic actors together. They should also follow the processes which make things calculable (Caliskan & Callon, 2010; McFall & Ossandón, 2014). Calculability is an achievement where organizations equip actors with devices so that they can perform calculative actions. This is a result of organizations' and marketers' skills in the socio-technical organizing of markets (Callon & Muniesa, 2005).

Through this approach to market studies it becomes possible to understand markets as a product of both humanized and materialized dimensions where calculative devices are highly influential in consumer's' consumption choices and actions.

2.1.1 Applying the sociological approach to markets to this thesis

The aim of this thesis is to understand the limits of the role of sustainable smartphone applications in reinforcing sustainable consumption practices in the context of food waste. The thoughts from the sociological approach to markets can, therefore, be applied to this thesis as it emphasizes how material objects shape how consumers consume (Cochoy, 2008).

In particular, this thesis will use the concepts of *market devices*, *socio-technical scripting* and *qualification* derived from NNES. In the analysis, Karma's smartphone application and Instagram account will be treated as *market devices* inscribed with *socio-technical scripts* with implicit instructions on how to act and use the devices (Hansson, 2017). Through *qualification* processes between market devices and actors, qualities of the product are constructed and defined which lead to that consumers become attached to the promoted act (Callon et al., 2002 Hansson, 2017).

2.2 Market Devices

The presupposition of this thesis is that sustainable smartphone applications and related online platforms can be seen as market devices that are assisting consumers in their sustainable consumption practices (Hansson, 2017). Literature has emphasized that market devices are the material objects that can work to both reproduce processes and practices (Muniesa, Millo & Callon, 2007). Thus, they assist consumers in their decision-making and make them act. Market devices are therefore crucial tools in changing consumer practices (Muniesa et al., 2007). As such, the concept will be used to understand how the Karma application and Instagram (conceptualized as market devices) assist consumers and guide them toward specific actions and practices (Callon, 1998a; Callon, 1998b; Callon et al., 2002; Cochoy, 2007). Thus, they will be studied as promotional platforms that encourages the consumer to act.

This thesis is inspired by the thoughts of NNES and market studies which includes a material dimension to the study of economic actors (Caliskan & Callon, 2010). The material dimension can be translated into market devices that help to carry out economic action in markets (Muniesa

et al., 2007). In other words, market devices are defined as the non-human objects and technical equipment that assist economic action in markets and which consumers use as a tool to perform calculative actions (Muniesa et al., 2007; Cochoy, 2008; McFall, 2009). With its focus on technical devices and non-human actors in shaping the market, ANT (actor-network theory) highlights the importance of technical devices in the performing of the economy (Callon, 2001). The ANT approach argues that market devices facilitate economic transactions and emphasizes that non-human objects are as important as human actors within market exchanges, especially when they interact with each other (Latour, 2006). Thus, the inclusion of market devices (i.e. the Karma application and its Instagram account) is relevant to this thesis as they alter consumer practices.

Market devices facilitate economic transactions because they enable consumers to choose and identify a product. They make it possible to evaluate and compare products through qualification activities, singularize them or link them to other products. Because of this, market devices play an important role in how actors are able to choose one product or practice over the other. When informing consumers about what is considered a sustainable purchase, market devices are essential for influencing consumers to perform sustainable practices (Dubuisson-Quellier, 2010; Cochoy, 2014; Dubuisson-Quellier, 2015).

Market devices constitute situations so that consumers can perform actions. In other words, consumers are not born with rational thinking of how to behave in the market, they rather become a specific type of consumer when market devices guide them toward specific actions (Callon et al., 2002). Thus, the notion of market devices highlights the importance of objects in configuring and changing practices and consumption patterns (Dubussion-Quellier, 2015).

Market devices come equipped with a 'script' of actions that encourages the consumers to perform specific actions (Hansson, 2017). Since one of the thesis research questions is to understand how consumer actions are promoted and enabled in the Karma application and on Instagram (i.e the market devices), it is essential to study more closely how the scripts within these market devices tells the consumer how to act (Hansson, 2017). In the next section, the attention will be narrowed to the socio-technical scripts inscribed into market devices.

2.3 Socio-Technical Scripts

In this thesis, the Karma smartphone application and Instagram are treated as market devices. In order to understand the limits of the role of sustainable smartphone applications in reinforcing sustainable consumption practices in the context of food waste it is essential to narrow the attention to the 'script' within market devices (i.e the implicit instructions on how to act and use these devices) that make consumers act (Hansson, 2017). Thus, the concept of socio-technical script will be applied in the analysis to interpret screenshots from the application and Instagram to answer the research question of how consumer actions are promoted and enabled in the Karma application and on Instagram. What kind of actions do the script encourage and how does it enable consumers to perform sustainable consumption practices?

Socio-technical scripts are the inscribed ideas that are materialized into objects (market devices) that shape actions (Hansson, 2017). For instance, knowledge of sustainability issues can be inscribed as advice into market devices where they outline which practices the consumer should choose to become sustainable. Thus, knowledge or expert advices qualify practices as sustainable (Hansson, 2017). Scripts, therefore, outline the consumer actions together with instructions on how the practices should be carried out (Fuentes & Sörum, 2019). Scripts could, for instance, tell the consumer what and how to consume in order to become sustainable (Kjellberg & Stigzelius, 2014). The actions that the consumer is allowed or forbidden to perform are embedded in the market device and can be read and interpreted as text, which makes it comparable to a manuscript on how to act (Hansson, 2017). Sustainable smartphone applications are through their functions designed and inscribed with a script to equip consumers with skills so that they can take ethical action. A script allows the consumers in the market to become calculative agents. We can, therefore, understand the neoclassical assumption about homo economicus as something that may happen under certain conditions, if we are equipped with the right tools (Callon et al., 2002). As such, consumers are constructed to act as homo economicus and urged to buy in a particular way. Therefore, consumers' ability to calculate is situated and rationality is not in the mind of the consumer, it is a product of market devices inscribed with socio-technical scripts (Cochoy, 2008).

An application or a platform may be inscribed with a particular script, but that does not mean that the consumer will read the script the way that its creators intended (i.e the creators behind Karma). It needs to be translated and understood by every user, a process that is crucial as the act that the user perform may differ considerably from the promoted action (Fuentes & Sörum,

2019). Every script therefore comes with limitations because it is highly dependent of how it is read and interpreted by its users which, consequently, can limit the promoted action.

The socio-technical scripts inscribed into market devices enable qualification processes to emerge when market actors interact with products. The next section will therefore explain how the concept of qualification will be applied in this thesis and provide a description of the concept.

2.4 Qualification

The concept of qualification will be applied to understand the qualification processes made by market devices but also the requalification that happen when consumers interact with market devices, which leads them to perform sustainable consumption practices. When marketers want consumers to buy their products or perform their practices, they need to capture consumers attention and make their products visible to consumers. Consumers are therefore encouraged to engage in a requalification process where they evaluate the product or practice through use Callon et al., 2002). The concepts of qualification and requalification will therefore be used to understand how Karma as a market device is eventually considered by its users.

In order for consumers to take sustainable purchase decisions, or for smartphone applications to prescribe the same, practices must be classified as sustainable (Hansson, 2017). Thus, the qualification process is a process where the smartphone application is 'scripted' to give qualities to products and practices. The process of qualification is performed by the smartphone application where information and advices about practices and products lay the foundation for the qualification process (Hansson, 2017). The qualification process will be analyzed by unfolding how the script qualifies practices, and consequently, how processes of requalification occur when consumers interact with the market devices.

The process of qualification consists of continuous fights over the meaning of things that are settled through trials of strength. Quality is constructed through human and non-human actors in the market (i.e socially and through market devices). Thus, qualities are the characteristics or properties that are revealed when agents interact with the product or when performing the practice (Callon et al., 2002). Through market devices, consumers are able to identify and categorize products that help them in the decision process of what product to choose (Callon et

al., 2002). Devices are able to singularize products (i.e make products different, but yet similar to other products) which involves connecting products and their use with cultural and social categories that are either alternative or mainstream. In other words, market devices assist consumers in their qualification process (Fuentes & Fuentes, 2017). Through the qualification process, a product is judged, evaluated and compared to other products. This is the process of calculation which enables attachment and detachment between the consumer and the product (Reijonen & Tryggestad, 2012). In this process, products and markets are emergent and transforming. Qualification is therefore an iterative process where product qualities are inscribed into the product (Callon et al., 2002). When consumers interact with market devices, they calculate and evaluate their attachment to the product they are exposed to. This process is solely designed by professionals behind the purchasing environment. Calculation can therefore be viewed as framed by professionals. However, if a consumer is prepared before entering a purchase environment, they depend less on what the market devices communicate. Thus, when the consumer is not prepared, it is more likely to be affected by the market device (Callon & Muniesa, 2005).

The requalification process which ascribe qualities to products may also be performed at home where the consumer performs tests and evaluates products with their social networks and discusses the results (Callon & Muniesa, 2005). Sustainable practices are not always visibly different from other practices. Therefore, sustainable practices need to acquire sustainable attributes through qualification processes where the qualities are negotiated and revealed and eventually communicated to consumers. It is only when consumers are aware of a sustainable attribute that they can use it to requalify a practice as sustainable (Callon et al., 2002). When products are inscribed with ethics, they become qualified as ethical and considered by consumers (Hansson, 2017). Through visual images and text, qualities of environmental friendliness are constructed which makes it a quality that eventually will comply with the interests of market actors that is considered in their consumption choices (Reijonen & Tryggestad, 2012; Hansson, 2017). Qualification also makes it possible for corporations to market themselves where they can define a problem and point a direction toward possible solutions (Corvecllec & Stål, 2019).

The socio-technical capacity of marketers allows for greater reflexivity in qualification activities (Callon et al., 2002). The expected outcome of such activities is a consumer that is able to calculate. Consequently, qualification processes involve framing and reframing and

attachment and detachment which inscribe product and services with new qualities (Muniesa et al., 2007). It is therefore crucial that the market devices are designed in a way so that consumers can acquire the ability to calculate (Muniesa et al., 2007).

2.5 Summary

The interrelated concepts of *market devices, socio-technical scripts* and *qualification* are the key concepts that constitute the framework that will be applied when analyzing the gathered data. The interrelatedness of these concepts is evident as *market devices* are inscribed with a *socio-technical script* that aims to *qualify* products and practices. When consumers' requalify the qualified products and practices, Karma can be considered by the users. The above presented theoretical framework will be used as a lens to make sense of the empirical material and answer the research questions. The next chapter will discuss the methodological considerations of the thesis.

3. Ethnographic method

This chapter will describe the methodological considerations of the thesis.

3.1 Research Approach

This thesis investigates the limits of the role of sustainable smartphone applications in reinforcing sustainable consumption practices in the context of food waste. A qualitative approach to data-collection was the most appropriate for the aim of this study. The thesis draws on qualitative ethnographic research because it allows for enriched understanding of social interactions (Novotny & Dedrick, 2018). Qualitative and ethnographic approaches are also essential for understanding the context in which certain actions might occur (Basole & Ramnarain, 2016). In the analysis of the empirical material, an abductive approach was used as the thesis shifts between theoretical and empirical reflection. Thus, the abductive approach allows for new insights beyond the theoretical framework (Bryman, 2012).

The analysis in this thesis is inscribed in the field of market studies which argues that, for markets to exist, they need to be continuously constructed (Nøjgaard & Bajde, 2020). In that sense, the market ontology is emergent and can be viewed as constructed. As explained in the previous chapter, this thesis also draws on the thoughts of ANT where reality emerges from an interplay between both human and non-human agents (Cordella & Shaik, 2003; Muniesa, 2015). When adopting this particular perspective, it is crucial to recognize that networks are heterogeneous, and when studying only one network, it is hard to generalize results. Instead, the focus is placed on whether the results can produce understanding about the particular network being studied (Cordella & Shaik, 2003). What distinguishes ANT from other constructivist approaches is how science and technology play a key part in the making of society (Callon, 2001). Thus, it studies reality in a constructivist sense but looks into how reality is constructed in networks and through interactions rather than viewing reality as only constructed in the mind (Callon, 2001). The approach in this thesis is therefore to understand the actions and interactions of both the human and non-human agents studied.

To summarize, this study draws upon the sociological approach to markets (market studies) and on ethnographic approaches, which, in this case, means observations of the Karma application and interviews with its users. The combination of the chosen theory formulation and ethnographic methods is supported by literature (see for example Hansson, 2017; Soutjis,

Cochoy & Hagberg, 2017; Fuentes & Sörum, 2019; Fuentes, 2019). Various studies have used the ethnographic approach to study material aspects such as ethical smartphone applications (see for example Hansson, 2017; Fuentes & Sörum, 2019; Fuentes, 2019; Soutijs, 2019). This technique can be viewed as a more contemporary way of doing ethnography. Pink, Horst, Posthill, Hjorth, Lewis & Tacchi (2016) referred to this as "digital ethnography" where both the practices that people perform and the material objects that are part of their lives can be used for the design of ethnographic research.

3.2 Research design

The thesis research approach as well as purpose, aim and research questions have guided the choice of the research design. This thesis draws on ethnographic methods of one sustainable smartphone application - Karma as well as Karma's Instagram. The Karma application was chosen as it is an application designed to engage consumers in more sustainable food-shopping and reduce food waste, which suits well with the overall aim of the study. Ethnographic methods are diverse, and various approaches can be adopted. However, they mostly rely on observations complemented by interviews (Jones & Smith, 2017). Therefore, a qualitative ethnographic research design was conducted combining data collection methods of ethnographic online observations of the smartphone application and on Karma's Instagram, and interviews with Karma-users. These procedures are explained in detail in the data collection section.

3.3 Data Collection

The ideal form of data collection when adopting an ethnographic design is to conduct interviews and observations (Bryman, 2012). The process of conducting these will be discussed in the following sections.

3.3.1 Ethnographic Online Observations

The aim with conducting online observations was to answer research question 1: *How are consumer actions promoted and enabled in the Karma application and on Instagram.* The online observations therefore aimed to observe the socio-technical script in the application and on Instagram.

In order to observe and understand the socio-technical script, the observations entailed going through the application and Instagram account and collecting screenshots to document the observations. The purpose was to answer the following two questions: "*What actions does Karma want their consumers to take?*" and "*How is Karma trying to make consumers do it?*". The ANT-approach suggests that socio-technical scripts also can be read by its users (Hansson, 2017) which both supports this technique of collecting data as well as enabling the analysis of the collected screenshots.

Data was collected from February to April, 2020. This was a constantly ongoing process. In total, around 90 screenshots were taken on the application and on Instagram. As these screenshots were taken on an iPhone, there were simultaneously taken field notes in the "Notes" application on the iPhone of what was observed in the pictures. These screenshots were transferred to a computer and then categorized into two different folders on a computer. In order to keep track of which note belonged to which picture, every picture was given a number corresponding to the number of the note. The first folder was named "*encouragement of practices*". Here, screenshots were collected that supported the question of "*What actions does it want consumers to take*?". The second folder was labeled "*enabling of practices*" which were supposed to answer the question of "*How is it trying to make consumers do it*?". This folder also developed to contain two more folders named: "*qualification*" and "*gamification*" in order to distinguish between the screenshots.

The next section will discuss the second method of data collection, namely interviews.

3.3.2 Interviews

The aim of the interviews was to answer research question 2: *How do consumers translate the actions that the application promotes?* In order to do this the interviews sought to answer what happens when consumers interact with Karma. This kind of question supports the ANT perspective applied in this thesis which concerns the actions of various actors rather than their perspectives of reality (Callon, 2001; Cordella & Shaik, 2003).

An interview guide was followed (see appendix) in order to collect answers. As this thesis was a part of a research project at Lund University, the interview guide was an adapted version from an already existing interview guide with pre-existing themes of: "Questions about the Karma application", "Picking up food", "Cooking", "Food leftovers" and "packaging". An additional

theme was also added to the interview guide with questions concerning "other Karma platforms". Even though the interview guide had a pre-ordered set of questions, the semi-structured style also allowed for the flexibility of follow-up questions. The semi-structured interview also allows interviewees to elaborate and comment further on the questions asked (Bryman, 2012) which meant that not exactly the same questions were asked to each participant. At the beginning of every interview, participants were informed about their anonymity in the study.

The participants in the interviews were chosen from a purposive standpoint as they were all relevant to the research questions (Bryman, 2012). In order to participate in the interviews, the respondents had to either be active or previous users of Karma. Participant selection was made through the use of social media. First, an Instagram story was created where Karma users were encouraged to reply to the story if they wanted to participate in the interview. Through this social media platform, five participants were selected for interviews. The remaining five participants were found in a Facebook group and were asked to reply to a Facebook post if they were using the Karma application or had been using it and wanted to participate in an interview.

In total, 10 participants were selected for the semi-structured interviews. The participants in the interviews consisted of nine women and one man. Eight out of ten participants were students when the interviews were conducted, and two had full-time jobs. In the following table, a demonstration of the length of the interviews with each participant are outlined. The interviews lasted between 30 and 55 minutes. Six of the interviews were conducted in Swedish and four interviews were conducted in English. However, as this thesis is written in English, the Swedish respondents have been directly translated when using their quotes in the analysis. All interviews were transcribed immediately after they had taken place in order to build consciousness around the themes that derived during the first interviews

Respondents	Date	Duration
Respondent 1	13/3	51 min, 50 sec
Respondent 2	17/3	40 min, 52 sec
Respondent 3	19/3	30 min, 17 sec
Respondent 4	19/3	38 min, 28 sec
Respondent 5	20/3	54 min, 52 sec
Respondent 6	21/3	35 min, 13 sec
Respondent 7	23/3	34 min, 17 sec
Respondent 8	26/3	41 min, 12 sec
Respondent 9	5/4	31 min
Respondent 10	5/4	46 min, 24 sec

which could then be followed up in the remaining ones.

Initially, the interviews were meant to be held face-to-face. However, at the time of writing, following the Danish Government's quarantine measures in response to the COVID-19 pandemic the interviews were instead conducted via Skype and Zoom. The Skype and Zoom interviews resulted in flexibility and convenience in regard to time and unnecessary travel costs. However, it should also be noted that some recordings were harder to conduct due to technical issues, and some interviews took longer than expected.

The next section will discuss how the collected interview and observational material was analyzed.

3.4 Data Analysis

The observations of the online material were analyzed through a close reading of the 'scripts' of the screenshots. This was done by going through the different folders and field notes that were made during the process of collecting data. Hansson (2017) emphasizes that this analytical technique is based on how artefacts that contain a script can be interpreted by all users, which makes it a method that can be applied when researchers use the app as other users do. The observation data was grouped into the following themes: "*Change your practices: purchase Karma food*", "*Change your practices: purchase sustainable, great and cheap food*", "*Maintain your practices: purchase more Karma food!*", "*Be good: Purchase "matsvinn" and "Play the Game: Gamification of practices*". These themes were applied as headlines in the analysis to illustrate what consumer actions Karma promote and how these are enabled.

When analyzing qualitative data, making sense of patterns in the empirical material is the primary interest of the researcher (Bryman, 2012). When all the interview data had been gathered, a thematic analysis was applied to find relevant themes (Saunders, Lewis & Thornhill, 2015). The ANT approach considers the importance of being open to the data that is being analyzed. Therefore, the codes were developed from the empirical data rather than working with already established codes (Saunders et al., 2015). During the thematic analysis of the interviews, the transcripts were read while the research aim and research questions were kept in mind. The whole data set was explored in order to look for recurrence and occurrence of themes. The interview transcripts were read several times in order to gain familiarity with the

data set and to make the analytical procedure easier. In the transcripts, sentences, words and paragraphs related to the research questions were coded in an excel sheet. The codes that came up were *convenience, price, curiosity, sustainability, irritation, disappointment, spontaneous shopping, lack of planning, quantity discounts, notifications, leftovers, knowledge of edible food* and *recycling*. After the identification of these codes, they were unified in four different themes: *"Using Karma to make a convenient purchase"*, *"Using Karma to make a bargain"*, *"Eating Karma and the edibility of Karma food"* and *"Karma as a driver of spontaneous purchases"*. (Saunders et al., 2015).

3.5 Ethical Considerations

Research ethics refer to the norm or standards of the behavior in the relation of those who become the subject of the research. Therefore, it has implications for how the research topic is formulated, how the data collection is performed, how data is stored, and how the findings are presented in a morally and responsible way (Saunders et al., 2015). In this thesis, the ethical considerations were carefully taken into account. Considering the Covid-19 pandemic at the time of writing it would have been inappropriate to ask the interviewees to meet up face-to-face, both ethically, morally and legally because of the infection risk of travelling, and government regulations regarding activities in public places. Therefore, the interviews were held over Skype and Zoom to remove these risks. Before the interviews, the participants were asked for approval in regard to recording and their consent to use their quotes and thoughts in the analysis. They were also ensured anonymity in the study (Bryman, 2012). The online observations did not include observing any individuals, however, in the analysis, all usernames that appear in screenshots have been censored.

3.6 Quality of the study

In qualitative research, the study is evaluated in various terms of its trustworthiness (Bryman, 2012). In this thesis, two different data collection methods have been used to gather data. This was done to enrich the understanding of the study's aim and also to enhance the credibility of the findings. To further ensure credibility of the data presented in the analysis, respondents were asked to validate ambiguous quotes in the transcripts (Salkind, 2010; Silverman, 2013). When observing the socio-technical scripts of the application and of Karma's Instagram account, the key assumption was that scripts can be translated by its users, and thus, also researchers (see Fuentes & Sörum, 2019 for a similar argument). Still, it can be argued that the

credibility of the results could be strengthened if interviews with the designers of the scripts had also been conducted. The thesis is also transparent by giving access to the various sources that guided the analytical process to show the connection between the theoretical and empirical material (Silverman, 2013).

3.7 Limitations

The applied methods entail some limitations worth mentioning. If this thesis would have used other design and research techniques, the research problem could have been understood from various angles and perspectives. In this thesis, interviews were only conducted with Karma users, but could also have been conducted with the designers and programmers of the application, or people behind Karma to gain insight into the actions that they intend to build in through the various design elements.

There are also some limitations regarding the execution of the data collection. The outbreak of the Covid-19 pandemic limited the collection process to a certain extent. Face-to-face interviews were, for example, not an option. Interviews were therefore harder to conduct, and sometimes more difficult to replay afterwards due to lack of sound quality. However, due to the flexibility of qualitative methods, the interviews could be conducted in alternative ways and the interviewees were willing to validate their answers afterwards if the quality of the recordings was bad.

The next two chapters will present the empirical results that were produced through the data collection methods described in this chapter.

4. How scripts promote and enable consumer actions

This chapter uses the methods discussed in the previous chapter to analyze the socio-technical script of the Karma application and Instagram, focusing on what consumer actions the script promotes and how those actions are promoted and enabled.

In this analysis, the smartphone application Karma and Karma's Instagram account are conceptualized as market devices. Thus, the theoretical concept of market device and Karma will both be used to illustrate the sustainable smartphone application and the Instagram platform analyzed. The subtitles in this chapter represent the different themes identified during the analysis which demonstrate the various consumer actions that Karma promotes through its socio-technical scripts.

The analysis of the socio-technical script of the market devices found that the actions it encourages the user to do is changing their current practices, maintain their new practices, make a good deed by purchasing "matsvinn" and play the game. Karma enables these practices by giving consumers access to information about environmental issues related to consumption, qualifying Karma's products and practices as both cheap, sustainable and edible, as well as promoting competitions that make them engage in the practices. This is enabled by different functionalities and design elements. The result also showed that the actions were framed as meaningful, beneficial, rewarding and acceptable, which may enhance the success of the sustainable practices that the socio-technical scripts promote.

4.1 Change your practices: purchase Karma food!

When opening the Karma application, the user is immediately presented with a post that encourages them to click on Karma's blog: "The Zero Food Waste Blog" (Image 1-A). This is a function that allows users to educate themselves about food waste and related terms. Thus, a script that both encourages and enables Karma's users to become informed. In the blog, users are introduced to ten keywords related to food waste. Karma writes that the aim of presenting these keywords is "to identify and explain challenges and how to start solving [them]". The keywords are "sustainable development", "carbon footprint", "seasonality", "zero waste", "recycling", "upcycling" and "circular economy", as well as *"matsvinn"* and *"matavfall"* (two Swedish terms for edible and non-edible food waste respectively). After these sustainability

issues are presented, users are invited to "become a part of the solution to the issue of food waste" by "saving food today" (Image 1-B).
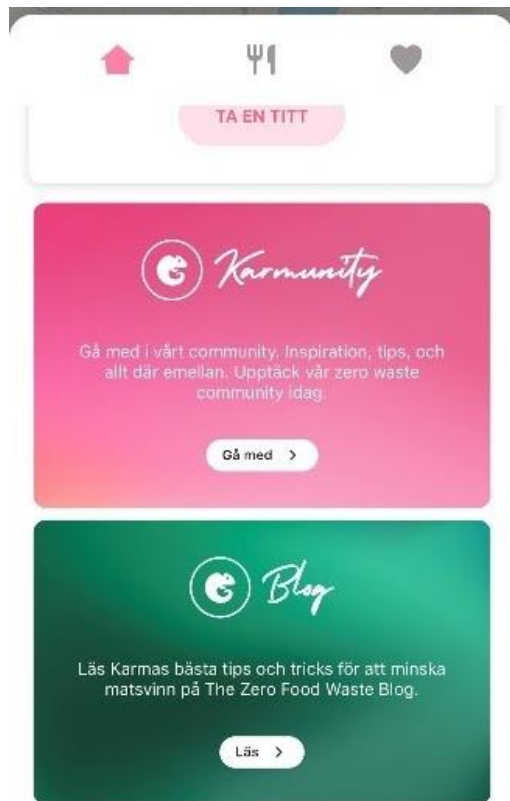

Image 1-A

"The Zero Food Waste Blog"

Image 1-B

An invitation for consumers' to "Save Food Today"

This function of the application encourages consumers to make an informed choice and change their practices and start consuming food sustainably. This 'expert advice' about environmental issues caused by unsustainable food-shopping is used to qualify Karma practices as sustainable. As Hansson (2017) suggests, expert information constitutes the basis for qualification processes of practices and products. In order for consumers to take sustainable action, they need to acquire knowledge of environmental issues related to consumption (Kong et al., 2016). The application is designed so that the users can get informed and educated in these issues while using the application. Through this function, Karma ascribe the quality of sustainability to their practices which makes it easier for the consumer to identify the quality and engage in the promoted action of purchasing food through Karma. Image 1-B displays a functionality where the user can click on a link to start purchasing and saving food with Karma, thus enabling them to take the promoted action of changing their practices and start purchasing food with Karma.

Hence, this functionality within the market device both make the consumer aware of environmental issues related to food waste and promotes a more sustainable way of consuming. Yet, it also assists the consumer in performing the action that they promote. Market devices are said to assist consumers in economic actions (Muniesa et al., 2007; Hansson, 2017) and here, it pushes consumers toward the action by giving them access to a button which they can click to start purchasing food with Karma. The script urges the user to engage in sustainable food-shopping and purchase food through Karma because the consumers will then be a part of the solution to solve the environmental issues that food waste causes. By imprinting on the consumer how the consumer action of purchasing food through Karma will contribute to that the presented environmental implications will be reduced, Karma also frames the action in a way so that it becomes meaningful for consumers to perform the action.

4.2 Change your practices: purchase *sustainable, great & cheap* food!

In the Karma application and on Instagram, the user is exposed to messages such as: "Great food for half the price" and "Rescue good food for half of the price in the app". Image 2-A and 2-B are screenshots from the application. Image 2-A tells the user that "The majority of the food in Karma is cooked on the same day. It is given a second chance, but it is still yummy!".
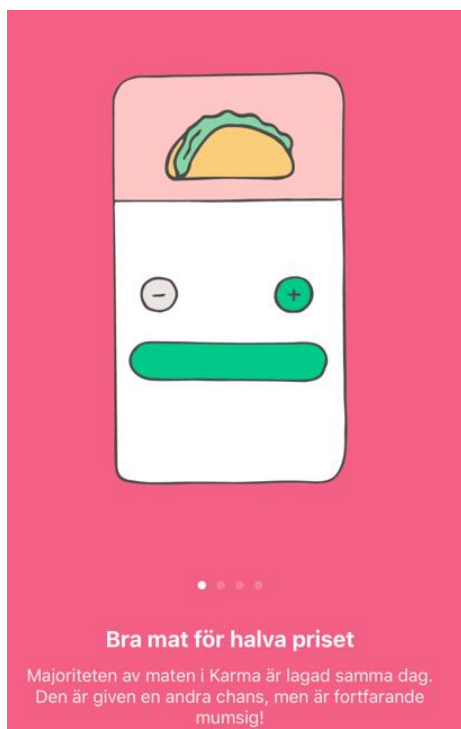

Image 2-A
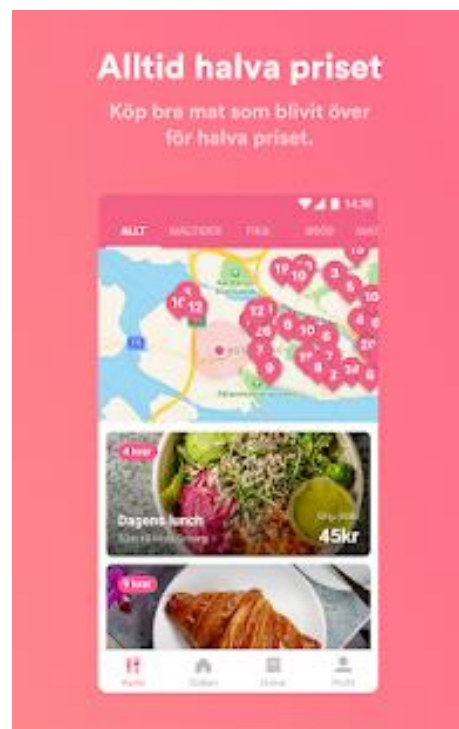
A screenshot from the application with the

Image 2-B

A screenshot from the application

| information that Karma has great food to a reduced price | demonstrating that Karma sells great surplus food |

Here, Karma is encouraging consumers to engage in new food-shopping practices by framing the practices as sustainable, cheap, and of great quality. Thus, the market device qualifies the practice as alternative, but yet similar to regular shopping for food practices. It does so by market the products as they are of the same great quality as products for the full price, but yet, a more sustainable and cheaper alternative to regular food-shopping practices (for a similar argument see Fuentes & Fuentes, 2017). The result is a construction of Karma's practices and products that are qualified as different enough from regular food-shopping practices to be an attractive alternative for consumers to choose. Yet, similar enough to fit into their existing food-shopping practices (for a similar argument, see Fuentes & Fuentes, 2017). Through the market devices, Karma gives consumers information that reveals the qualities of their products and practices which possibly can work as a point of reference for consumers to take action. It can lead them to break away from their current practices and engage in the actions that Karma promotes. This is in line with how Callon et al. (2002) argue that promotional material can work as a point of reference for consumers that assist them in choosing one product or practice over another.

The script that Karma equip their users with here outlines 'paths of action' for the consumer to follow, such as purchasing great surplus food for half the price. When equipped with a script, it is possible for consumers to break away from their preferred practices and products and engage in a new process of qualification in order to attach to the practices and products that Karma promote (Reijonen & Tryggestad, 2012).

Through the market device, Karma tries to attach consumers to their practices by promoting themselves as similar, yet different to consumers current food-shopping practices. Thus, Karma is promoting and framing itself as the better alternative for consumers to choose in their food-shopping practices, which simultaneously enables the consumer to engage in the promoted action of purchasing food through Karma.

4.3 Maintain your practices: Purchase *more* Karma food!

In the Karma application, users receive medals when they use the application continuously to purchase food. The user is rewarded with "medals" after reaching certain targets, like reducing

carbon emissions: The Carbon Capture (Image 3-A) is awarded for saving food equal to five kilos of carbon emissions; Tree hugger (Image 3-B) is awarded at ten kilos; and CO2minator at fifteen kilos (Image 3-C). The consumer actions that the script is promoting are that consumers should purchase more food through the Karma app and simultaneously maintain their practices. This is done by encouraging and motivating them with different medals representing different ways in which they can improve themselves.
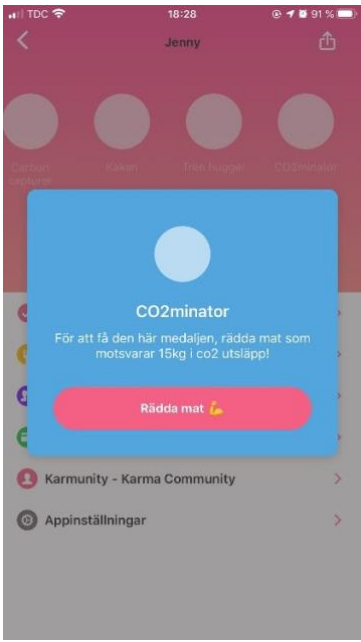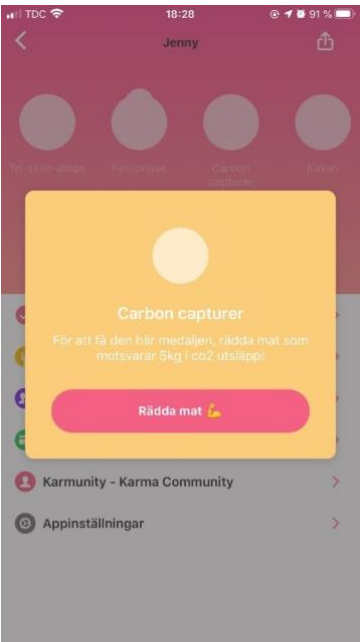

Image 3-A

"The CO2minator"

Image 3-B

"The Carbon Capturer"
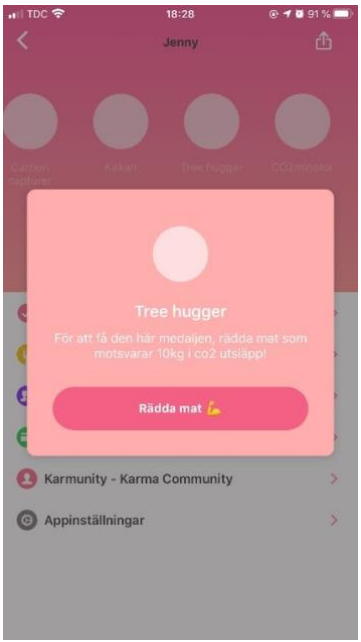
Image 3-C

"The Tree Hugger"

While the script encourages consumers to maintain their practices and purchase more, it also frames the action as meaningful by demonstrating the positive impact on the environment that the action has. By doing this, Karma frames the environmental issues of food waste and food-shopping into a language that consumers can understand. They also provide a possible solution for consumers to deal with the issue (Rappalaina, 2020). Through these functionalities, the script promotes consumer actions that lead to a meaningful impact on the environment, if the consumer continues purchase food. When the script lines up the actions that the consumers should take, and shows the positive environmental impacts of that action, practices are qualified as sustainable. Thus, the script in these images can be interpreted as encouraging actions where the user should continue to purchase food through Karma to minimize negative environmental impacts (Hansson, 2017).

4.4 Be good: Purchase "matsvinn"

Image 4-A and 4-B are screenshots from Karma's Instagram account. Here, they distinguish between "matsvinn" and "matavfall". They explain that, in general, people have a hard time

Image 4-A

An Instagram post that tells the consumer how to distinguish between "matsvinn" and "matavfall"

Image 4-B

An Instagram post that tells the consumer how to distinguish between "matsvinn" and "matavfall"

distinguishing between the two concepts where *"matsvinn"* sometimes is interpreted as inedible food when it is actually the opposite, which may cause perfectly edible food to become waste. This information can be interpreted as expert information on a problem of insufficient consumer knowledge which might lead to a sustainability issue (for a similar argument see Hansson, 2017). When Karma communicates the distinction between "matsvinn" and "matavfall" they reconfigure the meaning of waste into a valuable product for consumers which they encourage consumers to purchase.

Thus, the actions that the script of this market device encourages is that consumers should do a good deed and purchase "matsvinn" from restaurants. The action is promoted and enabled by

outlining the differences between "matavfall" and "matsvinn" where "matsvinn" is framed as something edible and acceptable to purchase. Thus, this market device both qualifies the action of purchasing "matsvinn" as sustainable, as well as acceptable for consumers to perform (Hansson, 2017).

4.5 Play the game! Gamification of practices

The following three images are screenshots taken inside the application. Image 5-A represents a reward that the user can earn by rescuing their first item with Karma, a practice that can be equal to playing a game. In order to earn the reward "Pärlan", the user needs to rescue one item during their first week of using the application. Users are also encouraged to invite friends into the Karma application (see Image 5-B).
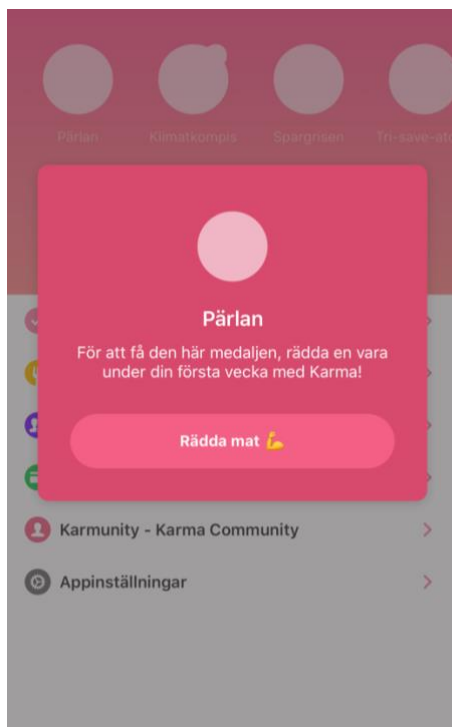
Image 5-A

A Screenshot from the application of the reward "Pärlan"

Image 5-B

A Screenshot from Instagram that promotes how consumers' can earn 40kr by inviting friends to the application

If they do this, the friend earns 40 SEK to rescue food while the user themselves earn 40 SEK when the invited friend uses the app for the first time. An action where users can possibly get rewarded by letting other "players" into the game, provided that the player plays by the rules of the game. In accordance with theories on gamification, Karma tries to enhance users'

sustainability actions by engaging them in fun and meaningful practices which will lead them toward sustainable consumption actions (Fuentes, 2017). Thus, 'game mechanics' within market devices can make the practices more fun and rewarding which may enhance sustainable consumer actions (Schiele, 2017).

The following screenshots are examples of competitions where Karma tries to promote and engage users in sustainable consumption practices. Image 5-C shows a competition where users can win 100 SEK/month in the application during the whole year of 2020 if they can come up with a rhyme with the word 'matsvinn'. Contestants are also asked to tag three friends in the post and follow Karma on Instagram. The consumer who wins the Karma credits is then able to carry out the promoted consumer action with these credits. Image 5-D shows another competition where the user can win a goodie-bag from Karma by rescuing an item, upload a creative picture of the item on Instagram and use the hashtag #KarmaSweden. Subsequently, they are encouraged to tag two friends in the Karma post that they "want to rescue food with". In Image 5-D, Karma says that in order to participate in the competition, the user must perform the action they advocate, namely, to engage in food-shopping through the application.

Image 5-C

A Screenshot from Karma's Instagram where consumers are encouraged to participate in a competition

Image 5-D

A Screenshot from Karma's Instagram where consumers are encouraged to participate in a competition

Image 5-E

A Screenshot from Karma's Instagram where consumers are encouraged to participate in a competition

Image 5-E shows a post about a competition to save food three times with the Karma application during the current month. The post urges the user to tag a friend "who cannot miss this challenge to help us reduce food waste even more". When they are asked to share with others, they are also given a chance to present themselves as sustainable consumers, which could also lead them to maintain their practices and consume more sustainably (Schiele, 2017). From these examples above, it is evident that Karma enables a series of 'gameful' sustainable consumer actions through their script which consumers can get rewarded for (Fuentes, 2017). When rewarding consumers, they can be motivated to stay on task because the gamification elements in the scripted market devices frame the actions as purposive and incentivizing when consumers are both recognized and rewarded for their actions. Thus, the application is built in with game mechanics to encourage sustainable consumption actions. They are encouraged to play the game, an action that leads to more sustainable consumption practices (Fuentes, 2017).

4.6 Chapter summary

The socio-technical script inscribed into the market devices (Karma application and Instagram) is the basis for both promoting and enabling sustainable food-shopping practices. The script promotes and enable new lines of actions that consumers should engage in. By doing this, Karma is trying to create a new practice to obtain food that benefits the environmental implications of food waste and promotes sustainable consumption. Thus, through the various methods described above, actions are framed as meaningful, rewarding and acceptable which may enhance the success of these practices. The analysis also shows how the market devices tries to ascribe qualities to the products and practices that aim to attach consumers to the new practices that they promote.

This chapter has described how consumer actions are promoted and framed. However, for consumers to comply with these scripts, the practices and products also need to be qualified by the consumers in a process of requalification (Callon et al., 2002). In this process, consumers evaluate the current qualification done by the market device to see if it is a match with what they demand. Thus, in the perspective of ANT, it is both the work of non-human agents and human agents that gives qualities to products and practices (Muniesa, 2005). The next chapter will, therefore, look at how consumers, through the use of the devices, evaluate the current qualification (i.e Karma's qualification of its products and practices) and engages in processes

of requalification through use which lead to that they either accept, or questioning the promoted consumer actions.

5. Consumers' translations of the script

The thematic analysis identified several codes from the interview transcripts. From these codes, the following themes emerged: *"Using Karma to make a convenient purchase"*, *"Using Karma to make a bargain"*, *"Eating Karma and the edibility of Karma food"* and *"Karma as a driver of spontaneous purchases"*. These themes constitute the chapter subheadings.

The themes demonstrate what happens when consumers interact with Karma but also highlight how the use of Karma brought a consumer action that was neither explicitly promoted through the application's script, nor the intention of the consumer. The following analysis will therefore show how consumers requalify the current practice and product qualifications made by Karma, while they are using Karma and after the consumers' have brought the products home. Consumers' requalification of the practices and products showed that if consumers could requalify the promoted consumer act as convenient and cheap, they could comply with the promoted action of purchasing food through Karma. Whether or not they would change their practices and only purchase food with Karma depended on the degree to which Karma allowed them to requalify food waste as edible food.

The previous analysis of the socio-technical script found that the script — through processes of qualification — is trying to get consumers to change their food-shopping practices and start purchasing food with Karma. The following analysis focuses instead on how the consumer translate the promoted actions and how products and practices are requalified when they engage in their food-shopping practices.

5.1 Using Karma to make a convenient purchase

Consumers' utilization of Karma on many occasions was connected to *convenience*, a quality that was important for them if they were to make a purchase with the application. Interviewee 2 described a certain occasion when notifications popped up as a reminder that there was food out for sale which was a matter of convenience for her and eventually enabled a purchase to take place:

> Two weeks ago, I placed my latest order in Karma. It was after work and I could see that there were some new notifications from a place that has really nice salads and had some food for sale. I was on my way to a workout so I knew that I would be too tired to make lunch for the day after when I came home so I picked it up on the way (Interviewee 2).

When she received the notification, it reminded her that she could combine shopping for food with Karma with another activity. She also knew that, if she purchased through Karma, she did not have to cook lunch for the upcoming day. When the market device sent out the notification, the consumer could identify that the practice would be convenient for her to proceed with. When a place nearby the consumer popped up, the market device had already qualified the practice as convenient which caught her attention (Callon et al., 2002). When the consumer used the application, she could requalify it and ascribe to it the quality of convenience. Thus, by requalifying the practice through use, the practice was accepted by the consumer and could enter her daily routine. Thus, she complied with the promoted action of changing her regular practice.

Interviewee 8 also highlights that "I usually make a purchase in the morning, because that is when I receive a notification. But then I pick it up after work when I'm on my way home and pass the supermarket". Interviewee 7 also stated that "I've purchased lunches many times at places close to my work, but also dinners from restaurants close to my home". For Interviewee 4, convenience also seemed to be of great importance for placing an order as she stated that she only "go to places close to where she is at the moment". Thus, it is essential for interviewees that they can perform the action in combination with something else, or when they are on the move. When using Karma, the consumers requalified the practice of food-shopping, ascribing it with the quality of convenience as the practice could match with their requirement of convenience which led to them accepting the practice and using it again at a later time when they wanted to purchase something convenient (Callon et al., 2002).

Interviewee 10 also talked about the importance of convenience. But rather than accepting the quality of convenience, she questioned it, saying that she often decided not to proceed with a purchase because Karma could not match her requirement of convenience. She illustrated this with an example:

> I have wanted to purchase with Karma several times. I go into the app and check, but usually I work to 18 at [large mall in central Malmö], and then I get notifications from ICA [Swedish supermarket franchise] there. I have been thinking that it is perfect to purchase after work and then bring it home for dinner, but I have not been able to do this because you can only pick it up until 5:45 PM and I work until 6 PM and then I have avoided to purchase because I can't, I want

> to buy on the way home, it need to fit with that. That has prevented me from purchasing with the app even if I wanted to, it has not matched my routines or my schedule (Interviewee 10).

The previous analysis of the socio-technical script showed that the application promotes that the consumer should change their shopping for food practices and start shopping with Karma. From the point of view of the consumer, the practice must be convenient if it is to work according to the script. If the action is not convenient for the consumer to perform, the consumers will not change their food-shopping practices. Thus, when consumers could requalify the practice as convenient, the promoted action was translated as intended by the consumers. In cases where the consumer could not requalify the practice as convenient, the translation of the script differed from the promoted action. When consumers translate the promoted consumer action, it is common that something interferes and makes the practice diverge from what was intended (Fuentes & Sörum, 2019). In the cases above, the practice clearly had to fit in to become requalified as convenient to perform it. Even though Karma wants consumers to break away from their current practices, it does not work if Karma cannot prove that the action is convenient and fit into the consumer's schedule and other practices.

5.2 Using Karma to make a bargain

The previous analysis of the socio-technical script showed that Karma — through processes of qualification — tries to differentiate themselves from similar practices by stating that they are a *cheaper* sustainable alternative, but still of the same quality as full-price food. Interviewees declared that they approve of Karma's purpose of reducing food waste, and that it felt good to support a company with an important goal. However, they also valued lower prices and the possibility to make a bargain which agreed with what Karma could offer them. Interviewee 1 illustrated this mindset:

> When I first downloaded the application, I did it because I wanted to purchase something cheap. When I use it now, I mostly scroll down the application to see if there is anything, I can get which is usually expensive, but cheaper in Karma. For example, earlier today I saw that a supermarket close to me had cheese, which is usually expensive, up for sale which I bought (Interviewee 1).

The previous analysis of the socio-technical script showed that consumers are encouraged to change their practices and purchase Karma food, something that they promoted by framing the promoted consumer actions as beneficial. Thus, they are trying to break the consumers current

routines in shopping for food by promoting qualities that stand out to catch the consumers attention (Callon et al., 2002). In the example above, the market device is able to get the consumers attention and helps her to identify the product (cheese) and its qualities in terms of price. When she identified the property of price, it was a quality evaluated as positive (Reijonen & Tryggestad, 2012). Thus, the supply side (Karma) tries to get consumers to requalify the qualities that they establish through their qualification process and hopes that consumers will evaluate the quality as positive for the intended practice. The requalification therefore leads to the consumer accepting the practice (Callon et al., 2002). The qualification process led to qualities that corresponded to what the consumer wanted and the consumer requalified Karma while using it to make a bargain (Callon et al., 2002). Another interviewee talked about how a good deal in the application made her perform a purchase:

> It was a friend of mine that used the application, and she told me that there was a place with good cinnamon buns close to me that I could get for a cheaper price if I downloaded the app. So I downloaded it, but I ended up buying bread instead because they had 10 buns for 10 kronors, which I found was a better deal than the cinnamon buns (Interviewee 9).

Even though this consumer intended to perform a similar act through Karma, buying cinnamon buns, something that her friend had told her about, the interaction with the market device enabled her to catch sight of another deal. This particular deal stood out and caught her interest which enabled her to perform the practice, requalifying it and evaluating it as positive to perform.

It can be concluded that, when market devices promote discounts and frame actions as beneficial for the consumer, consumers that value the quality of price will be able to identify it and engage in a process of requalification through use where the quality is evaluated as positive and acceptable to enter the consumers life.

5.3 Eating Karma and Edibility of Karma food

Karma promotes an action through which consumers can perform a good deed and purchase 'matsvinn'. This is enabled by qualifying products as edible and framing them as acceptable to purchase. However, through the interviews, it was found that the quality of "edible" food is requalified by the consumer not only while the consumer is using the application, but also after they have completed a purchase and brought the product home. In the words of Callon et al.

(2002) it is the market devices, and the trials of strengths that enables processes of qualification/requalification which result in the consumer choosing one thing over something else. At this stage interviewees reported both accepting and rejecting the products.

The edibility of the food is almost impossible for consumers to directly observe. Instead, the food's edibility is often revealed to the consumer only after they have already completed the purchase and brought the product home. Even though Karma promotes their products as edible, these promoted qualities need to match with what the consumer perceives as edible. Thus, once the product had been brought home, the possibility remained that the consumer would evaluate the product qualities a second time, and potentially requalify it through use (Callon et al., 2002). This requalification can be both negative and positive.

Interviewee 10 illustrated how, after she made a purchase with Karma, and tested the product at home, the products were requalified and accepted by her:

> I have been a little scared to use the application because I have thought that the food is old and that if you buy bread, it will probably be dry. But then one time, I actually purchased bread. I bought four scones which I shared with my boyfriend, and it was not dry at all. On the contrary, it was really yummy. I was very satisfied. So now I am happier when I go into the app because I know that the food will not be old and dry. I'm more excited to use it now when I know this (Interviewee 10).

Even though she was skeptical toward the products from the beginning, the current qualification made by the market device caught her attention and convinced her to try the products. When she brought the products home, she was able to evaluate the promoted qualities which led to her engaging in a process of requalifying the product's edibility (Callon et al., 2002).

For other Karma users in this study, the current qualification of the edibility of Karma food was also requalified after the purchase had been completed and the product had been brought to the consumer's home. However, in contrast to the case above, the requalification processes of these consumers resulted in the edibility of Karma food being questioned rather than accepted. Several of the interviewees recalled experiences where the pastries they bought turned out to be dry. Interviewee 1 expressed her disappointment by highlighting how the experience of a really dry *semla* made her unwilling to purchase pastries through the application again. Interviewee 2 also recounted an experience where the cinnamon buns that she bought through

Karma had been in such bad shape that she threw them away. Interviewee 5 talked about an experience where he found a sandwich inedible:

> One time, I went to a café. I bought a sandwich in the morning when I sat on the train so I could pick it up on the way to class. I wanted to eat it as a snack but when I got the bread it was wrapped so I could not see what it looked like. I unwrapped it after class and it was really dry and unpleasant. However, it has just happened that one time. I guess it is a risk you take. You know that you buy something that is not extremely fresh. So sometimes it might be like this (Interviewee 5).

In the above examples, the current qualification of Karma food as edible was evaluated through tests when the consumer acquired and tasted the products. Thus, the quality constructed by Karma, was reconstructed by the consumer during the process of requalification and the edibility of Karma food was questioned. Reijonen & Tryggestad (2012) argue that product properties need to be gradually adjusted with the co-construction of the interests of consumers through a process of 'trials of strengths' where the product perhaps will be supported by market actors. During these home tests, consumers evaluated the current qualification of the product to determine if it meets their expectations and preferences and whether they want to engage in the promoted actions again. In the examples above, some of the interviewees revealed that such test results may cause them not to use the application again. For interviewee 10, who had a positive experience, the result attached her to the products sold by Karma and she used the experience as a point of reference when purchasing through the application at other occasions. In the other examples, the bad experiences could possibly reduce the chance of consumers maintaining their purchases with Karma as the tests had them questioning the edibility of the food that they paid for.

5.4 Critiques of the application

The above sections have described how consumers — through processes of requalification — evaluate the current qualification made by Karma, which either have them accepting the promoted consumer actions or questioning them. Even though consumers reported that they proceeded with the actions that Karma promoted if they could qualify the practice as convenient to perform, the market devices also seemed to contribute to constructing the actual purchase as convenient which resulted in the Karma users engaging in impulsive buying. For the interviewees, this was an unexpected outcome of interacting with the application.

5.4.1 Karma as a driver of spontaneous purchases

All interviewees reported that their use of Karma was often unplanned, without a specific goal in mind. Interviewee 1 explained that she tries to avoid looking in Karma at the end of the month when her financial status is worse, as the reduced prices usually cause her to make spontaneous purchases that she did not intend to make in the first place. Interviewee 10 also described that her three latest purchases through Karma were performed on impulse, and she simply used the application after prompted by a notification. Interviewee 2 also talked about how Karma sometimes creates a need for her:

> I know that I do not always have the need to go in and buy something, but I do go inside the app maybe every third day because I am so curious. Plenty of times I have bought stuff that I was not looking for in the beginning, and then I have realized that the need was not there until I opened the application and purchased it (Interviewee 2).

For interviewee 2, Karma is able to construct a need so that the consumer can perform the promoted action of purchasing through the application. Market devices are able to constitute situations so that consumers can perform promoted actions (Callon et al., 2002; Dubussion-Quellier, 2015). Thus, when guided by the market device and the notifications interviewee 2 becomes an impulsive consumer engaging in purchases, she not intended to in the first place.

When asked about how her shopping practices with the application had changed over time, interviewee 7 admitted that at first, she did a lot of unplanned impulsive buying because the reduced prices tempted her:

> I bought a lot of stuff from different restaurants which I did not plan to buy in advance. It could be that I bought a lot of bread that I did not buy before. I just bought stuff that sounded nice and was cheap. With time, I started questioning myself and my spontaneous shopping and realized I wanted to plan more and think an extra time before purchasing. I questioned myself if it was really necessary to proceed with a purchase. I think my purchase pattern with Karma has changed because I've raised my own attention toward my consumption patterns. It is so unnecessary to buy stuff you were not supposed to buy from the beginning only because it is cheap. Karma is perfect if you have forgotten your lunch at home and there is a place close to work that sells out food. But sometimes I could also buy from Karma even though I had lunch with me to work, only because it was cheap. And then I threw the lunch I brought with me away when I found something in the application that I rather wanted (Interviewee 7).

In the above example, Karma influenced the respondent to make an impulsive purchase which meant lunch she had planned to eat ended up in the trash can. Even though the concept with the application is to reduce food waste, this particular incident led to her performing a practice where food was wasted. Interviewee 4 talked about how she had taken a pause from Karma for a while because she felt that the notifications triggered her to make a purchase she did not need to do:

> I think I was getting distracted a lot by my phone when I got all of these notifications. I had to turn them off because I checked them too much. It made a big difference when I did not check them all the time. So now I just check the app when I'm thinking of getting something. I decide when to check the app rather than the app deciding it for me (Interviewee 4).

Interviewee 6 also confirmed that notifications from Karma sometimes made her buy things she did not plan to purchase in advance. When notifications popped up, she always clicked on it to see what it was and would most likely proceed with a purchase if a product was appealing to her. Respondents report that, when shopping with Karma, they do not make use of any tools to plan their shopping. As such, most of the purchases seem to be very spontaneous and the decision to make a purchase happens simultaneously with the market device interaction. Interviewee 5 illustrated this:

> Almost all the time when I go use the application and purchase things, I do it without planning for it in advance. When notifications pop-up, I sometimes go into those places where I am a frequent customer, as I might wanna try something new, but from a well-known place (Interviewee 5).

When opening the application, the users are exposed to calculative tools designed by the marketers of the application. Even though they will calculate and evaluate their personal attachment to a product, they also do it against the tools that they are exposed to, which are designed by the sellers. Consumers' own calculation can therefore be seen as enabled and framed by qualified professionals behind the market devices (Callon & Muniesa, 2005). If the user would have been prepared to shop and use some sort of equipment for what to buy, they would depend less on what the market device is communicating. Thus, when Karma users are not prepared and equipped, they are more affected by market devices and thereby influenced to engage in spontaneous shopping (Callon & Muniesa, 2005). The result described above shows how influential the Karma application as a market device is in facilitating and affecting how their consumption is carried out.

5.5 Chapter Summary

The interviews revealed that market devices allowed for consumers to identify various qualities of Karma practices and the products that they have up for sale. However, it was when the consumers interacted with the market devices that the qualities of the practices and products enabled a process of requalification which either resulted in the consumer accepting or questioning the qualities that Karma tried to ascribe to their practices and products. Thus, for consumers to ascribe qualities to Karma, they need to requalify the products and practices that the market device promotes which also must correspond with what the consumer prefers. This leads to the consumers either accepting or questioning the products and practices (Callon et al., 2002; Reijonen & Tryggestad, 2012).

The application wants consumers to change their food-shopping practices, but in order to do this, consumers need to evaluate the current qualification of the practice and products and it has to conform to what the consumers want. The actions that Karma promotes and encourages need to work for the consumer, both in terms of convenience, price and edibility. An unexpected outcome for the consumers when interacting with the application was that, when Karma encourages consumers to engage in their food-shopping practices, consumers tend to engage in impulsive buying. Here, they started to question their way of purchasing through the application. Once they understood that the application was influencing them to make a spontaneous purchase, they were less interested in using the app.

6. Conclusion

The final chapter of this thesis summarizes the results and brings answers to the aim and the two research questions. It also discusses the implications, theoretical contribution, limitations, and possible future research. The aim of the thesis is to *understand the limits of the role of sustainable smartphone applications in reinforcing sustainable consumption practices in the context of food waste*. Two achieve this aim, the thesis asked the following two research questions:

- How are consumer actions promoted and enabled in the Karma application and on Instagram?
- How do consumers translate the actions that Karma promotes?

In answering these two questions, this thesis has added empirical findings from an ethnographic study on the Karma application and analyzed the relationship between the promoted actions and how consumers translate these, an area of research that has so far been understudied. In doing so, this thesis has added to our understanding of what can go wrong when consumers translate promoted actions. By putting this thesis into the context of market studies and ANT it has emphasized the complexity of devices in changing consumer practices in the context of food-shopping.

From the empirical analysis it can be said that smartphone applications have limited power in reinforcing sustainable consumption practices in the context of food waste. Several factors underline this assertion: First, the socio-technical script inscribed into the market devices promotes that the consumer should change their current food-shopping practices and start purchasing food with Karma to reduce food waste. To do this, Karma framed the promoted actions as meaningful, beneficial, rewarding, and acceptable in order to encourage consumers to participate in the promoted actions. Yet, when analyzing the consumers translation of these actions, it was found that the promoted actions need to work for the consumer, both in terms of convenience, price, and edibility in order to be translated accordingly. Thus, the current qualification that Karma did on their practices and products had to be requalified by the consumer through use and thereafter accepted or rejected. Finally, an unexpected outcome for the consumers when interacting with the application was that they began to engage in impulsive buying, which in some cases turned them away from using the app. This may indicate the limits

to which sustainability can be enhanced by the app. The literature has suggested that a script must always be translated by users which often results in the consumer action being different than intended (Fuentes & Sörum, 2019). However, the results of this study seem to indicate that however well-designed script may be from the point of view of its designers, the way that consumers react to their own actions is still hard to control.

6.1 Managerial Implications

The potential of smartphone applications in facilitating sustainable consumption in the context of food waste is evident. With various design elements and functions, smartphones have great potential in engaging and enabling consumers in these actions. However, in this particular study, consumers' usage of smartphones for sustainable food consumption does not necessarily make them break away from their regular food-shopping practices and engage in new practices and maintain those. Karma users have certain routines and preferences regarding what their food-shopping should look like which makes the translation of the promoted actions highly complex. Furthermore, consumers that are aware of how Karma influences them to make spontaneous purchases were less interested in maintaining these practices which points toward an important managerial implication: to succeed with the aim of the application, engaging consumers in sustainable food-shopping practices and reducing food waste, Karma should design their scripts so that consumers do not experience the discomfort of impulse purchases, as it can drive them away from the application and prevent them from complying with the promoted actions. It goes almost without saying that such reactions on part of the consumers are detrimental to the sustainability of Karma's business model as well.

6.2 Theoretical Contribution

This thesis has contributed to the emerging field of digitalization and sustainability within the area of consumption studies. Earlier studies within the field of sustainable consumption and digitalization have primarily focused on how interaction between humans online enable sustainable consumption (Rokka & Moisander, 2009; Graham & Haarstad, 2011; Cooper et al., 2012; Albinsson & Perera, 2012; Atkinson, 2013; Parigi & Gong, 2014; Eden, 2015; Svenson, 2018; Mercier-Roy & Mailhot, 2019; Hoelscher & Chatzidakis, 2020) or the activity that occur when humans interact with sustainable smartphone applications (Sörum & Fuentes, 2016; Fuentes & Sörum, 2017; Hansson, 2017; Humphrey & Jordan, 2018; Soutijs, 2019; Fuentes, 2019; Sörum, 2020). The later of these studies highlight the potential of sustainable smartphone

applications in reinforcing sustainable consumption practices as well as the consumers utilization of these applications. Despite extensive studies of digitalization and sustainability, few had considered the discrepancy between the consumer actions that sustainable smartphone applications promote, and how those actions are translated by the user. This thesis has created an understanding for the limits of the role of sustainable smartphone applications in reinforcing sustainable consumption practices in the context of food waste.

In relation to previous studies, this thesis emphasizes the complexity of digital devices in changing consumer practices. While Fuentes (2019) found that it is hard to adjust smartphone applications to specific situations and consumers, Sörum (2020) showed that consumers' ongoing identity projects constitutes a large part of whether the consumer accepts or reject sustainable smartphone applications. However, this thesis argues that how consumers translate the promoted actions depends on how they will react to their own actions while shopping with Karma as well as their routines and preferences in the context of food-shopping. Thus, consumers engage in a kind of "post-script assessment".

6.3 Limitations and Further Research

The aim of this thesis was to *understand the limits of the role of sustainable smartphone applications in reinforcing sustainable consumption practices in the context of food waste*. This thesis, however, is subject to some limitations.

Drawing on the thoughts of ANT implies that it is hard to generalize results and ensure that they can be transferred to another context. This thesis focuses on one smartphone application within one context. Therefore, it is hard to generalize the findings to other contexts. The findings of this thesis indicate that the context surrounding the consumers influenced how consumers translated the actions that Karma promoted. Attempts should therefore be made to reproduce the results in other contexts (for example in sustainable fashion consumption or sustainable travel consumption) where other conditions and interests may influence the consumers' translation of the script. Conducting the interviews while also observing the consumers' interaction with the smartphone application could have provided a closer look to the reality of the consumers' when they interact with the application. Thus, further studies could potentially observe the actions as they unfold instead of relying on the interviewees' descriptions of their actions.

Qualitative research tends to involve a smaller selection of participants. With more time available, it might have been easier to use another method for finding participants, which could have resulted in a larger and more diverse group participants.

The process of answering the stated research questions also generated questions that could be explored through further research. This thesis has proposed the concept of "post-script assessment", as a way of describing how consumers evaluate their own translation of a script, which in turn influences subsequent translations or interactions with the script. Further research should therefore explore the concept of post-script assessment. Such research could therefore explore how to reinforce sustainable consumption patterns by creating scripts that lead to positive post-script assessments, that in turn would make the consumer more likely to reengage with the script, as opposed to abandoning it entirely. After all, sustainable consumption practices are only sustainable as long as they are in fact sustained.

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Appendix - Interview guide: adapted version

1. Introduktion

Berätta lite om dig själv! Ålder, jobbar/pluggar, familj/barn mm.

2. Frågor om Karma-appen

- Hur hörde du talas om Karma-appen från första början? (från vem eller var?)
- Kan du berätta om senaste gången du var inne i Karma-appen och tittade?
- Flera tillfällen
- När gjorde du senast en beställning via appen? (Hur bestämmer du vad du ska handla? Till vem beställer du? Vart beställer du? Vad beställde du?)
- Kan du berätta om en gång då det fungerade mindre bra att beställa mat?
- Hur länge har du använt karma-appen?
  - Varför började du från första början?
  - Varför tog du paus?
  - Varför slutade du?
- Hur ofta öppnar du appen?
- När använder du den? (tid på dagen, månad, speciella tillfällen etc.)
- Till vilken måltid tillämpar du oftast karma-appen?
- Applicerar du de filter som finns i appen för att välja bort vissa typer av mat? Varför använder du / använder du inte filtret?
- I karma-appen kan du se hur många varor du har räddat, hur många kilon du har räddat och hur många kronor du har sparat. Brukar du reflektera över detta? Är detta viktigt för dig i och med ditt användande av appen?
- Har du tjänat några medaljer i karma-appen? Om ja, vilka?
- Använder du dig av Karmunity i appen? Om ja, vill du berätta lite om det? Om nej, varför inte?
- Följer du några specifika restauranger i appen? Vilka? Hur många? Vilken typ av mat?
- Lyckas du alltid hitta det du är ute efter i appen?
- Har du notifikationer påslaget i appen för att veta när ställen du följer har mat att rädda?
- Bjuder du in vänner i appen för att tjäna krediter?
- Hur har ditt sätt att handla med appen förändrats över tid? Varför tror du att det har förändrats? Varför inte?
- Använder du dig av några andra plattformar än Karma för att handla mat? Om ja, varför? Om nej, varför inte? Hur skiljer sig Karma från de andra du använder?

3. Andra Karmaplattformar
- Följer du karma-appen på någon av dess plattformar? (Instagram, Facebook?)
- Går du ibland in på någon av plattformarna (instagram, facebook, hemsida)?
- Varför går du in där? Varför inte?
- Har du någon gång lagt upp/delat på instagram/facebook att du har handlat med karma? Vad skriver du isåfall? I vilket syfte?

4. Hämta maten

- Var hämtar du det du har beställt? Hur tar du dig dit?
- Har du använt dig av Karma-kylskåpet?
- Hur gör du när du betalar för maten?
- Har varorna du beställt någon gång inte levt upp till dina förväntningar? Vad gör du isåfall?
- Händer det att du köper varor som du inte har beställt via appen när du väl är där?
- Vad gör du efter att du hämtat maten? (går hem, på väg hem, på väg till jobbet eller i kombination med något annat?)
- Kan du berätta om en gång då det fungerade mindre bra att hämta maten?

5. Handla mat
- När du inte använder karma-appen, hur och var handlar du då?
- Hur skiljer sig dina olika sätt att handla mat från varandra?
- Handlar du mat online?
- Har du andra sätt som du skaffar mat på?

Matlagning:
Använder du Karma för att "ersätta" matlagning? Berätta…

6. Matrester och förpackningar
- Vad för mat kastade du senast?
- Har du matrester i kylen nu? (Vad ska de användas till - ätas eller kastas?)
- Hur länge sparar du matrester innan du äter/kastar dem?
- Blir det någon gång mat över från det du köper/beställer i Karma-appen eller i butiker? Vad blir i så fall över?
- får du med förpackningar när/om du tar med mat hem? Vad gör du med dessa?

7.Avslutning
- Skulle du säga att sättet som du handlar mat på är ohållbart/hållbart? På vilket sätt?
- Om du skulle ändra något i hur du handlar mat – vad skulle det vara?
- Något du vill tillägga?