CO-CREATION OF A SUSTAINABLE IMAGE ON SOCIAL MEDIA: THE CASE OF FIVE FOOD BRANDS

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ABSTRACT

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Abstract

The food industry causes large environmental impacts globally. Different actors such as governments, brands and consumers however, are actively working on creating a sustainable society. In this study I investigate how brands and consumers co-create a sustainable image and which sustainable images they create. A multiple case study is conducted under five Dutch sustainable food brands by using content analysis of sustainability hashtags in firm- and user-generated posts generated between April 2016 and March 2017 on the social media platform Instagram. The hashtags where counted and categorized in ten sustainability categories which were defined in a test-phase using open-coding principles. Major findings include that the sustainability images created by brands and their consumers can differ strongly. Both brands and consumers create most frequently sustainability hashtags related to healthy eating, lifestyle and dieting and less frequently hashtags related to environmental issues. The results do not show that brands strongly influence the user-generated sustainability hashtags with the sustainability hashtags they produce themselves on Instagram. Next to bringing newness value to the current sustainability research available, the study also offers practical implications. Namely that brands have only limited control of the sustainability image generated by their consumers on Instagram and that sustainability topics related to healthy eating, lifestyle and dieting seem to be important for the brand's consumers active on Instagram.

Keywords: Sustainability – Social media – Brand image – Co-creation – Food

LIST OF FIGURES

LIST OF TABLES

CONTENTS

1   INTRODUCTION

The transition towards a sustainable society requires action, collaboration and an academic world that supports and observes this challenge of humanity. From this massive and constantly changing challenge I picked a niche to explore for this thesis. Namely, the interdisciplinary niche of sustainability, brand image and identity, co-creation and social media as the title of this thesis emphasizes: 'Co-creation of a sustainable image on social media: The case of five food brands and their consumers. In this introduction chapter, I will give the context of the topic and explain which gap in research this thesis fills. Further, I will explain shortly the methodology and I will give an outline of the topics yet to come.

In recent years, sustainability has transformed for a certain extent from an altruistic way of living to an Eco and Ego fabulous trendy lifestyle. The environmental impacts of humans on earth became bigger during the recent years, but also new ways have been found to tackle society's sustainability challenges. The food industry is heavily responsible for a variety of environmental impacts such us climate change, eutrophication and resource depletion (Notarnicola et al., 2017). In the food chain different actors such as farmers, groceries and food brands can take action in order to decrease these environmental impacts. Food brands can for example purchase ingredients which are produced with less greenhouse gas emissions than conventional ingredients and ingredients that did not contribute to land clearing and resultant species extinctions (Tilman & Clark, 2014). Food brands can use these environmentally friendly aspects of their products or way of working in their marketing. The five case brands analysed for this thesis, consider sustainability as an important element of who they want to be as a brand (brand identity) and how they want people to perceive them (brand image). Due to the rise of social media platforms, consumers form a part of the creation of a brand image. Consumers make selfies with food brands, attach hashtags to their posts and portray food brands in their own way, influenced by trends. This means that in this exchange of communication on social media between brands and consumers and consumers with each other, they create together a certain brand image. Sustainability is part of this brand image, which is co-created partly on social media platforms. Especially for small and mid-sized companies (SMEs), which have often limited resources for marketing, social media can provide a resource efficient way of reaching a large audience. But when brands strongly rely on social media for marketing activities and co-create their brand image together with consumers, they also loose a certain amount of control. Control about what consumers associate the brand with in their social media posts and thus also loss

of control of the sustainability image of the brand. Consumers namely often wish to present the best version of themselves (Gofmann, 1959) and can see the sustainable food product merely as an object in their post to reach this goal. Eventually, I argue that this can lead to conflicting consumer produced sustainability images and brand produced sustainability images.

The topic that I decided to study has perceived scarce attention from scholars. For some extent this is understandable, because the communication about sustainability and food on social media did not happen yet in a mainstream way ten years ago and has been growing due to technologies such as smartphones and apps. However, related topics such as brand-image, co-creation, sustainability and social media have received attention throughout the years in a variety of academic journals. For example, the studies of Roy and Banerjee (2014) and Rokka and Canniford (2016) explored the creation of brand inconsistencies between brand identity and brand image on social media. Belz and Frank-Marin (2009) described the change in thought patterns about sustainability through the years and Mascheroni et al. (2015) studied the behaviour of users on social media. Social media research on hashtags and user communication have mainly used Twitter as a social media platform. An example of research in which Twitter is used, is the research of Culotta and Cutler (2016) who studied (eco) brand perceptions on Twitter. For the study that I conducted, sustainability hashtags produced in 2016-2017 on the social media platform Instagram by five Dutch SME sustainable food brands and their consumers are studied.

This introduction chapter continues with a paragraph about the motivation and aim of the study followed by a description of the research task. After this, the five food brands are introduced. Below this chapter, the theoretical framework can be found which explains the frameworks on which this research rests and it describes previous conducted research. Then, I will explain throughout how I conducted this research. The thesis continues with the results of the study, which provides answers to the research task stated in the beginning of the thesis. At the end of this document, the discussion and conclusion can be found, which summarize and reflect on the way how I conducted the research and how the results can be interpreted. A list of references is displayed at the end of the thesis with the sources I have used in this study. In the appendix I explain key abbreviations used in this thesis and also how English translations of Dutch results are displayed in the text and tables.

1.1 Motivation for the research

The foundation for the motivation for this research was a strong personal passion for sustainability, food, creativity and entrepreneurship. This thesis, from which the topic could be chosen quite freely, was thus the ultimate chance to combine these motivating factors and write a meaningful thesis. I identity myself as a 'hard core' Corporate Environmental Management student, who believes that companies play an important role in the sustainable transition, that they have the duty to act responsible and that doing business sustainably provides many benefits.

The food industry is a fascinating and important sector to study, because this sector contributes heavily to the environmental degradation of the earth and at the same time will be impacted strongly when the effects of climate change and other sustainability issues become stronger. Further, next to that food provides pleasurable taste experiences, it is also linked to global challenges such as hunger, obesity and health. With a Dutch market share of less than 10 percent of sustainable food in one of the most developed countries in the world, there is still a massive amount of action to be taken. I think The Netherlands can play an important influencer in the world of food, due to its position as the second biggest food exporter in the world, after the United States (Berkhout, 2017).

I personally admire entrepreneurs that take action and create their own sustainable food brand. Although their impact and revenue might be small, they influence consumers' way of thinking. This eventually leads to situations that cause large food corporations to change their way of working. Studying food and sustainability related communication on Instagram was enjoyable and it was fascinating to dive into consumers' worlds to explore how they communicate about sustainability. Further, gathering the data from social media together with online thesis support from the university, provided the flexibility that I needed in the past year.

1.2 Aims of the research

The main goal of this research is to provide both academia (e.g. scholars and students) and practitioners (e.g. marketers, entrepreneurs and managers) with knowledge about how brands and consumers could co-create a sustainable brand image. The study provides insight which SMEs can use to make their marketing activities related to sustainability more effective. Further, this thesis will contribute to the understanding and encouraging sustainable food consumption and the role of brands and consumers in the transition towards a sustainable society.

1.3 Research task

Based on the aim of the research, motivation and research gap, the following research task was established:

How is a sustainable brand image co-created on social media?

The research task led to three central research questions that will be addressed in this study:

(1) Which sustainability categories do brands and consumers address in their Instagram posts?

(2) To what extent does the sustainability image communicated by the consumers, corresponds to the sustainability image communicated by the brand itself?

(3) Do brands and consumers take over sustainability hashtags from each other?

The concepts of sustainability and sustainability categories will be explained in a separate chapter before the theoretical framework. Then in the theoretical framework, I will elaborate on what a sustainability image is and what the role of brands and consumers is in creating this.

2 FIVE SUSTAINABLE FOOD BRANDS

The five sustainable Dutch food brands that are the case brands for this study will be explained in this chapter. For every brand I will describe what the brands sell, when they were founded, where they are located and where their products can be bought. After this introduction I will explain which sustainability challenges they tackle and how they tackle them in practice. Further I will highlight some special characteristics of the brand and give a sneak peek about their presence on Instagram. Most of the information described about the brand originates from the website of the brand. In the research methods chapter, I will explain why I have chosen to study these five brands in particular.

2.1 Kromkommer: a happy anti-food waste soup firm

Kromkommer is a brand that sells soups which mainly contain vegetables that otherwise would not have been used for human consumption. The brand was founded in 2012 by a group of three food waste enthusiastic women with the help of a crowdfunding campaign. Currently they exist of approximately five employees and a community around them with advisors, volunteers and customers. The brand is headquartered in Rotterdam and their products can be bought from 50 (often sustainability, local and innovation focused) stores throughout the country and online in the flavours tomatoes, red beet, carrots, zucchini, parsnip and pumpkin. Their soups can also be bought warm in university restaurants in Utrecht.

The problem that Kromkommer is tackling with their business is food waste. Worldwide roughly 30% of the food is wasted, while in many places in the world people have hunger. Vegetables and fruit form a large part in this food waste and they too often end up in landfilling, fodder for livestock or biogas production. Causes of this waste are among other causes: strong quality regulations from the EU, consumer perceptions and the unbalance between demand and offer at the food market. Kromkommer wants to save all the wonky vegetables and fruit that are not ending up at the plates of consumers by using four pillars: (1) A new definition of quality, (2) A fair price for everyone in the chain, (3) Knowing what you eat, (4) Together.

Kromkommer's community called 'Krommunity' is an important part of their brand and helps to create change in the chain together. The fans can share their odd looking vegetable and fruits on social media and with their partners Kromkommer creates sustainable products such a sustainable Christmas packages for employees. The brand's funny approach to tackle with food waste

can be recognized from their packaging design and funny Instagram posts and comments.

Figure 1 (left): Kromkommer soups in their packages
Figure 2 (right): Kromkommer employees and volunteers during an awareness activity

2.2   Tony's Chocolonely: Eating for slave-free chocolate

Tony's Chocolonely is a chocolate brand that sells fair chocolate products such as chocolate bars and chocolate milk. The brand has been founded in 2006 by Teun van der Keuken, a Dutch television presenter and producer, after an episode about child labour in the chocolate industry. They are headquartered in Amsterdam and their team exists of approximately 40 people. Their products can be bought in many Dutch supermarkets and sustainability focused stores, but also in other European countries and recently in some states in the United States as well.

The problem Tony's Chocolonely tackles with their brand are the human right issues in the production of cacao. Ivory and Ghana produce 60% of all the cacao in the world and in these countries 2.300.000 children work in cacao plantations, from which 90% under illegal and very dangerous circumstances (Tony's Chocolonely, n.d.). Other related problems to the cacao production are human trafficking and lack of education for these children. They tackle it with the use of five principles of cooperation: (1) Pay a fair price, (2) Follow the cocoa bean, (3) Go for the long haul, (4) Farmers stand strong together and (5) Improve quality and productivity together. The cacao for the chocolate is directly bought from farmer cooperatives in Ghana and Ivory Coast, with whom they have long term relationships. This is the so called 'Bean to Bar-concept'. Also the rest of their ingredients are bought Fairtrade if possible. In three steps Tony's Chocolonely wants to change the chocolate world, namely (1) Create awareness, (2) Lead by example and (3) Inspire to act.

Tony's Chocolonely has a big emphasis on great taste and fun. Their packages are colourful and their chocolate bars can have eccentric flavours.

Workshops are provided for chocolate enthusiasts and the chocolate enthusiasm is 'dripping' of their Instagram posts and the ones created by their consumers.

Figure 3 (left): Tony's Chocolonely cholate bars and uneven divided chocolate
Figure 4 (right): Illustration of the origin of the Tony's Chocolonely's cacao beans

2.3 Peeze: Coffee roasters with origin

Peeze is the name of a coffee roaster that provides sustainable coffee- and tea concepts for at the office, in the hospitality industry and for at home (Peeze, n.d.). Their assortment includes many types of coffee, tea, chocolate milk, equipment and accessories, pottery and side products, recipes and barista trainings. They have been founded in 1879 and are located in the East of The Netherlands, in Arnhem and Velp. Their products are mainly sold to business customers, but via their own store and web shop households can also purchase their products.

The problems that the brand tackles are the poor labour conditions, loss of forests, the environmental impact of the coffee production and the waste it creates after consumption. The brand tackles these problems by working together with organisations that strive for more sustainable coffee such as Rainforest Alliance and Max Havelaar and they stimulate sustainable entrepreneurship by conducting sustainability projects in collaboration with non-governmental organisations (NGOs). Further, they provide coffee and tea in bio-based packaging.

Peeze is active in Dutch sustainability associations such as MVO Nederland (CSR the Netherlands) and De Groene Zaak (The Green Business) (Peeze, n.d.). The focus of Peeze on the origin of their coffee can be noticed from their packages and Instagram posts.

Figure 5 (left): Peeze's coffee in their packages
Figure 6 (right): Peeze's biodegradable coffee cups

2.4 Seamore: Seeing healthy seaweed products

Seamore is a company that sells seaweed as a substitute for pasta or bacon. The Seamore adventure started in 2013 on a family holiday in Ibiza and after a crowdfunding campaign, they started to sell officially in 2015. They have been expanding outside the Netherlands to countries such as Germany, UK, Belgium and Australia (Seamorefood, n.d.). Their international ambitions can be noticed from their communication in English on their packaging and website. Seamore's headquarter is located in Amsterdam and their products can be bought in The Netherlands in the large AH supermarket chain and also in the more local supermarket Plus, next to some other places and on the website of Sea more.

Seamore tackles a variety of sustainability issues such as land use for food production, water use, fertilizer and pesticide use and challenges of citizens to consume enough vitamins, fibres and minerals. According to their website, the seaweed products tackle these issues and because seaweed only requires sunshine and no fresh water, land nor fertilizers and pesticides. The seaweed is organic, vegan and does not require genetic modification. The transport of the seaweed from Ireland is conducted by trucks who bring flowers to Ireland, and otherwise would drive back to The Netherlands being empty. Health claims used by Seamore are that their product is gluten free, low carb, low calorie, good for the brain, good for diabetes and good for the immune system.

Marketing their seaweed products as alternatives for the well-known pasta or bacon, could be an effective approach to sell their products outside the sustainable niche market of devoted organic consumers. By using Instagram, Seamore and its consumers share their creative dishes with the seaweed products.

Figure 7 (left): Seamore pasta and bacon in their package
Figure 8 (right): The raw seaweed Seamore uses before processing

2.5 Professor Grunschnabel: Friendly ice creams

Professor Grunschnabel is a brand that produces ice cream which is 100% natural and plant based. Their products do not contain colourants, conservatives and synthetic fragrances and flavours. The ice cream is lactose-free, gluten-free and soy-free and it is suitable for people with a vegetarian, vegan, halal and kosher/parve diet. In 2014, Professor Grunschnabel started a crowdfunding campaign on the platform Oneplanetcrowd to raise 25.000 euros, to be able to grow. Until 2008 they only sold their ice cream on a theatre festival. Professor Grunschnabel is headquartered in The Netherlands and they have 50 permanent and flexible workers. Their ice cream is available in almost 100 shops, restaurants and wholesalers in The Netherlands, Belgium, Germany, France and Sweden. Also the ice cream can be bought in one of the major supermarket chains in The Netherlands called Albert Heijn (AH).

From the website of Professor Grunschnabel it is not crystal clear which sustainability topics the brand tackles with their products. Throughout the information on the website the environmental benefits are explained. Due to the use of plant based ingredients, the carbon footprint of their ice cream is lower than conventional ice cream made of cow's milk and the ice cream contains almost half of the calories compared to the one made from cow's milk (Grunschnabel, n.d.). They use organic and Fairtrade ingredients which come from inside and outside The Netherlands. The fresh ingredients for in the ice cream are bought weekly and when buying the fruit, they take into account the seasons for optimal ripeness of the fruit. Interestingly the brand mentions that ice cream is not a sustainable product of itself, because they have to heat up ingredients first in the production process and then freeze it to create the ice cream. However, the brand describes that they are looking to make the production more sustainable by using more sustainable packaging and creating biogas from the fruit peels (Sprout, 2014).

Professor Grunschnabel is an illustrative example of the combination of environmental aspects (e.g. lower environmental impact) and health aspects (e.g. allergy-friendly). On Instagram can be seen that consumers as well refer to both the environmental and health aspects.

Figure 9 (left): Professor Grunschnabel's packages
Figure 10 (right): Newsfeed saying 'The most animal friendly ice cream in The Netherlands'

3 SUSTAINABILITY

The interdisciplinary nature of sustainability makes the term used frequently in a large variety of topics and situations. In this chapter I will elaborate on what is understood by sustainability in this thesis. First I will explain how the concept of sustainability has evolved over the years. Then I will elaborate more on the sustainability topics specifically related to food and consumption. The sustainability hashtags created by the brands and their consumers are categorized into sustainability categories. In this chapter I will explain why the chosen categories are relevant for sustainability and I will describe the link between the sustainability hashtags and sustainability categories.

3.1 The evolution of sustainability

The first time the term sustainable was used was in the 1700s when there were concerns about deforestation. After this time, the term sustainable was not widely used, but there was an increasing concern for the welfare of natural habitats and forests. In 1864 Marsh gave a start to the early conservation movement with his publication *Man and Nature* (Thiele, 2016). Also other writers such as Buckle and Huntington were writing about the relationship between humans and nature (Islam, 2017).

During the twentieth century, when the mass market was rising, there were several paradigms that influenced the way how society looked at sustainability. One paradigm was that economic growth is a prerequisite to improve the quality of life. Economic growth was needed to address challenges such as poverty and environmental protection. Another paradigm was that the use of resources, generation of waste and population growth could be solved by using science and technology. This is the so called Promethean view and replaced the view of divine intervention, which means intervention of a supernatural being such as a God (Belz, Frank-Martin & Peattie, 2009). Further, there was the paradigm that markets where an effective way to tackle the environmental and social consequences created by economic and population growth. The collapse of communist economies contributed to this view and emphasized the important role of markets.

Islam (2017) argues that between 1955 and 1975 there was more focus on class related issues than on environmental issues (Islam, 2017).

From the 1970s-1980s onwards the term 'sustainable' found its way in common usage. Various books and publications drew public and intellectual attentions towards environmental challenges (Islam, 2017). Especially the Brundtlandt Report in 1987 (Brundtlandt et al., 1987) contributed to the

mainstream attention for sustainable development. This report made it clear that the world's pre-existing approach to economic development, the systems of production and the patterns of consumption are socially and environmentally unsustainable (Belz, Frank-Martin & Peattie, 2009). The definition from this Brundtlandt report of what sustainability or sustainable development is, is still one of the most common definition of sustainability, namely: 'Development that meets the needs of the present without compromising the ability of future generation to meet their own needs.'

Then at the beginning of the 21st century the world was being confronted with challenges such as climate change, water shortages, food shortages, ecosystem damage, peak oil, urbanization, poverty and population growth. This led to the creation of the United Nations Millennium Goals in order to tackle these problems (Belz, Frank-Martin & Peattie, 2009). In the early 2000s, Al Gore raised attention with his documentary 'An inconvenient truth' (Guggenheim, 2006), which pulled together the arguments concerning climate change for a bigger audience. This was followed by the 2007 report of the Intergovernmental Panel on Climate Change (IPCC) (Solomon Ed., 2007) that stated that climate change is a clear and present danger to the future welfare of all societies on earth. That the society's current way of living and doing business is not only environmentally but also economically unsustainable, became clear in the 2008 economic meltdown (Belz, Frank-Martin & Peattie, 2009). Countries which developed and industrialized rapidly during the last centuries such as China, now also realized the strong increase in domestic environmental issues which led to policy discussions and growing public attention for the environment (Chen, 2016).

Research from the recent years (2010 – 2017) shows personal involvement of people in sustainability. Sustainable lifestyle movements are emerging such as (mainstream) vegetarianism and slow food. Consumers try to use the market as a political tool by consuming ethically, responsible and sustainable. The purchase decisions of these so called 'consumer activists' are mostly dominated by a homo economicus subjectivity. This means that their motivations are concerned with affordability, access and potential health risks related to production practices (Rice, 2013). Also the research of Hoek et al. (2017) states that consumers rarely consider the association between food and the environment, compared to the association between health and food, after having conducted online in-depth interviews with 29 Australian food shoppers.

In order to help the consumer to make ethical choices a greater variety of environmental labels came onto the market about energy consumption, animal welfare and fair trading. Well known examples of environmental labels in Europe are Fair Trade, Rainforest Alliance, Carbon Footprint and Animal

Welfare (Grunert et al. (2014). However, a proportion of the consumers find the labels hard to understand (D'Souza et al., 2006). Currently, labels do not play a major role in many consumers' food choices (Grunert et al., 2014) and firms can be creative in designing their own labels if they perceive the requirements for a environmental label as too strict.

The growing public concern for environmental and social issues has led to green consumerism. This means that citizens are urged by companies to help the environment through the consumption of eco-friendly products. Sometimes this leads to green washing (Chen, 2016), which means that the environmental claims are doubtable. In advertisements for green products can be noticed a shift from emphasizing thoughtful and collective environmental actions to encouraged individualism, greed and consumption (Budinsky & Bryant, 2013 as cited in Chen, 2016). Further, purchasing less goods and re-using more might not sound very Eco fabulous, but from an environmental viewpoint this is often the best choice.

3.2 A Sustainable diet

In this paragraph I want to dive deeper in the sustainability concept related to this study, namely food and dieting. The concept of a 'sustainable diet' is not new. It was proposed already in Gussow and Clancy in 1986 (as cited in Jones et al., 2016). They described that a sustainable diet includes dietary guidelines for maintaining long term health while at the same time avoiding excessive consumption and degradation of natural resources. Burlingame & Dernini described in 2012 (as cited in Jones et al., 2016) an expansion to this conceptualization, namely that a sustainable diet is protective and respectful to biodiversity and ecosystems, accessible, economically fair and affordable, culturally acceptable, safe, healthy and nutritionally adequate, while simultaneously optimizing natural and human resources.

Next to research on what a sustainable diet is, there are also many studies conducted on the drivers of purchasing sustainable food. Petrescu et al. (2017) describes a collection of these studies which describe that Italian consumers associate organic products with healthy, tasty, good and nourishing food (Zanoli and Naspetti, 2002), that consumers indicated that health and taste were the main motivators to eat in a sustainable way (Toblet et al., 2011) and that for British consumers ethical considerations were a key motivating factor for purchasing organic meat (Makatouni, 2002). Petrescu et al. (2017) found out in their own research that Romanian organic food consumers are mainly driven by health and taste motivations.

In this thesis the focus lies on sustainability, food and related concepts to this such as sustainable consumption, lifestyles and diets. The Farm and Agriculture Organisation (FAO) (2010, p.7) defines sustainable diets as: '...diets with low environmental impacts which contribute to food and nutrition security and to healthy life of present and future generations. Sustainable diets are protective and respectful of biodiversity and ecosystems, culturally acceptable, accessible, economically fair and affordable; nutritionally adequate, safe and healthy; while optimizing natural and human resources.' Garnett et al. (2014) made a categorization of the elements of a sustainable diet which can be seen in *figure 11*.

Figure 11: Issues to consider when defining a sustainable diet (Garnett et al., 2014)

3.3 Sustainable consumption in the Netherlands

I continue with describing about sustainable food consumption in The Netherlands; the country in which the case brands are most active and most consumers originate from who created the Instagram posts linked to these brands. The purchase of sustainable food is increasing in the Netherlands. Compared to 2014, the spending on sustainable products has increased with 12% in 2015, when classifying sustainable food as food with an environmental or

animal welfare label. This resulted in a market share of sustainable food of 8%. Especially the purchases of sustainable foods from supermarkets has risen in 2015 compared to the year before (+16%). Just like in the previous years, the biggest sustainable label/mark was organic (Logatcheva & Puttelaar, 2015). However, sustainable food behaviour in the Netherlands is relatively low compared to other European countries such as Denmark, especially regarding to local and seasonal products (Bouwman et al., 2016). It is also good to remember that sustainable consumption is not only about buying products with an environmental label, but more importantly what type of food the inhabitants are eating.

3.4 Categories

In order to provide a sustainability framework to analyse the sustainability hashtags, the aspects of a sustainable diet have been divided into ten different categories. I have created the categories with open coding principles, as can be read in the research methods chapter. In this subchapter I show which ten categories are used in this study and why they are a category which belongs to the topic of a sustainable diet. Also I give examples of sustainability hashtags, created by the brands and consumers, which fall in these categories.

Healthy eating, lifestyle and dieting
Although health is not always directly linked to sustainability, it can be associated with sustainability. Garnett et al. (2014) show that health and nutrition are key elements of a sustainable diet, in the United Nations Sustainable Development Goals (United Nations, 2015) 'ensuring healthy lives' and 'ensuring sustainable consumption' are mentioned in the goals. Health and environmental aspects of diets are combined in research as well, such as the research of Tilman and Clark (2014) on diets' link between environmental sustainability and human health. Also the preliminary research showed that many consumer generated sustainability hashtags are related to health. The type of sustainability hashtags created in this category differs from brand to brand due the difference in the type of the food.
A sustainability hashtag will be categorized into 'Healthy eating, lifestyle & dieting' if the hashtag…
 – relates directly to health (#healthy #healthylife #eatinghealthy);
 – relates to sports and fitness (#fitgirl #training #running);
 – relates to losing weight (#weightloss, #fatlossjourney);
 – relates to a special diet (#cleaneating #paleo #glutenfree #raw).
A hashtag will not be categorized into this category if the hashtag…

– relates to sports, but with less emphasis on health (#runningaddict #musclepain #workouttolookpretty).

Vegetarianism

A vegetarian diet has a smaller impact on the environment than other diets such as omnivorous, Mediterranean or pescetarian diets, when looking at the lifecycle greenhouse gas emissions (Tilman & Clark, 2014), but also at other lifecycle categories such as ozone layer, eco toxicity, acidification/eutrophication, minerals, fossil fuels, respiratory organics and inorganics carcinogens (Marlow et al., 2009) and land use (Marlow et al., 2009 & Hallström et al, 2015). Also, vegetarianism has a link with other sustainability related topics than the environment such as animal welfare.

A sustainability hashtag will be categorized into 'Vegetarianism' if the hashtag…
– relates to a (semi) vegetarian diet (#vega #vegetarian #flexitarier);
– relates to a vegan diet (#vegan #veganfoodshare #instavegan);
– relates indirectly to a vegetarian or vegan diet (#plantbased #crueltyfree);
– relates to a call for vegetarianism (#govegan #stopanimalcruelty).

Origin, supply chain & Fairtrade

Products consumed in the Netherlands and other western countries can come from a local farmer or a farmer thousands of kilometres away. In this short or long supply chain, sustainability issues arise, such as the sustainability of the supply chain, labour conditions and the support of local famers. Some certifications have been established to improve the livelihoods of farmers in developing countries such as Fairtrade and UTZ (Chiputwa et al., 2015).

A sustainability hashtag will be categorized into 'Origin, supply chain & Fairtrade' if the hashtag…
– relates to a origin related certification (#Fairtrade #UTZ #maxhavelaar);
– relates to a social issue in the supply chain (#childlabour #antislavery);
– relates to the origin of the food (#cacoaplantage #ghana);
– relates to fair trading (#fair #fairchocolate #honest);
– relates to local food (#local #localmarket #fromthefarmer).

Sustainability general & other

Next to topics within what people define as sustainable, also general sustainability terms are used in hashtags. They will be placed in this category, together with hashtags that are related to sustainability but cannot be categorized in one of the nine other categories.

A sustainability hashtag will be categorized into 'Sustainability general & other' if the hashtag…

- relates directly to a general sustainability term (#sustainable #duurzaam);
- related to sustainability in a business context (#CSR #sustainableentrepreneurs);
- relates in a way to sustainability (#eco #conscious #biobased #circulareconomy #greenliving).

Diversity

Diversity might not be the first thing that comes to mind when thinking about sustainability. However, the sustainability hashtags and the story behind them clearly show a link to the sustainable food brands. Vegetables and fruits are categorized in different quality standards, mainly motivated by their looks. These quality standards differ per product category (Tuinbouw, n.d.). About 20 to 35 percent of vegetables and fruits in high income countries can not meet the 'high' quality standards due to aesthetic defects (Gustavsson et al., 2011) and can end up as puree or source of energy for biogas production. Increasing awareness about this topic is one way to reduce food waste, increase food availability (Gustavsson et al., 2011) and decrease the environmental impact of food. Next to this environmental aspect, also the social aspect of diversity is communicated via hashtags. Food brands use their products to raise awareness for accepting human diversity and diversity in human relationships and sexuality.

A sustainability hashtag will be categorized into 'Diversity' if the hashtag…
- relates to accepting and/or promoting diversity in food aesthetics (#uglyvegetables #imperfectproduce);
- relates to accepting human diversity (#gaypride #oneracehuman).

Environmental issues

Like mentioned before in this thesis, food production and consumption has environmental impacts across a wide variety of impact categories (Marlow et al., 2009). Food production occupies for more than a third of the world's land surface and also create approximately 30% of the total anthropogenic (by humans caused) greenhouse gas emissions (Garnett, 2011, as cited in Hallström et al., 2015). Sustainability hashtags are categorized into 'Environmental issues' if they…
- relate to an environmental term (#ecosystem #environment #climate #greenenergy);
- relate to reducing or preventing waste (#zerowaste #recycling #circulareconomy).

Social issues, charity & ethics

A large part of the social side of sustainability is categorized in this category. Consumers do not only address the charitable or ethical actions of the brand, they also claim with the hashtags that they themselves are #doinggood because they consume a product of the sustainable brand. Many of the sustainability hashtags in this category also fall under the 'people category' from the triple bottom line: people, planet, profit as described by Elkington (1997).

Sustainability hashtags are categorized into 'Social issues, charity & ethics' if they...
- relate to people aspects other than Fairtrade (#community #people #development);
- relate to philanthropy and foundations (#partnership #peezefoundation #volunteering);
- relate to doing social things for the good (#doinggood #goedbezig);
- relate to ethics, animal ethics excluded (#ethicalshopping #ethiek);
- relate to other terms related to social issues (#verbinding #socialentreprise).

Organic & natural

The label organic informs consumers about the production method of the food. This type of food production has specific requirements on for example pest management, fertilizer usage and soil treatment (Prada et al., 2017). Some researchers are reluctant to draw a conclusive picture on the question if organic farming is more sustainable than conventional farming (Meier et al., 2015). However, other research mentions the positive effects of organic farming on for example biodiversity, soil fertility and protection of natural resources (Niggli, 2015). Both brands and consumers highlight in their hashtags the organic element of the brand. 'Natural' is a rather vague concept that is not only used in product claims by brands (McFadden et al., 2017), but also used in hashtags on Instagram by consumers to emphasize the natural or pure elements of a food product. What is meant by 'natural' is not always clear and it lacks a set of guidelines or legally binding regulations (McFadden et al., 2017).

Sustainability hashtags are categorized into 'Organic & natural' if they…
- relate directly to the word organic (#organic #bio #organicfood);
- relate directly to the word natural (#natural #natuurlijk #puurnatuur).

Activism, change & saving

In order to create a society with a sustainable consumption pattern, change is needed. Some consumers and brands express this in their hashtags. Activism is by some researchers also seen as a factor of ecological conscious consumer behaviour, next to other factors such as environmental knowledge,

environmental concern and perceived consumer effectiveness (Brochado et al. 2017). Terms related to change and saving are related to the concept of activism. Sustainability hashtags are categorized into 'Activism, change & saving' if they…

–   relate to a call to come into action (#savetheplanet #petitie #bethechange);
–   relate to terms about change and activism (#togetherwecan #awareness);
–   relate to terms about saving (#savetheplanet #savenature).

Self-sufficiency & home-grown

There are different global and local actors which promote relocalisation of food, such as the global Slow Food movement and local food networks. These sometimes called 'alternative food networks' can lead to benefits for public health, social cohesion, fostering of the community and environmental sustainability. Home-gardening is seen as a variant of an alternative food network and from a sustainability perspective can be compared to organic farming due to low fertilizer, pesticides and herbicides use plus the very short supply chain (De Hoop & Jehlicka, 2017). Furthermore, meals prepared from fresh ingredients and semi-prepared ingredients have lower energy consumption and greenhouse gas emissions and generate less waste than ready to eat meals (Hanssen et al., 2017). Also, frequently cooking a dinner at home is linked to the consumption of a healthier diet (Wolfson & Bleich, 2015) and greater dietary guideline compliance (Tiwari et al. (2017) in comparison to eating out or consuming ready to eat meals.

Sustainability hashtags are categorized into 'Self-sufficiency & home-grown' if they…

–   relate to terms about self-making in the context of food (#handmade #handgemaakt #homecooking);
–   relate to the self-production of food (#balconyfarming #urbangarden #homegrown #vegetablegarden).

4   THEORETICAL FRAMEWORK

The theoretical framework gives a review about what has been written before about the topic of this study and describes the most important theoretical concepts. It creates the foundation for analysis of the findings of the study. First, I will elaborate on theoretical concepts related to brand marketing and bit by bit move to theories and previous conducted research about consumers. Next, I will explain what the role of the brands can be in consumer identity creation and subsequently end the theoretical framework by explaining what co-creation is and what role social media platforms, and in particular Instagram, play in this.

4.1   Brand marketing

Brand marketing is a field which clearly has been influenced by trends in marketing research and social sciences. Although this creates a rich understanding about the different perspectives on the marketing of brands, it can also lead to confusion about different terms used to describe (almost) the same phenomena. To make clear what is understood in this thesis with marketing terms, it is necessary to shortly dive into the evolution of marketing and changed perspectives within this field.

The development of assumptions about marketing and brand management began with a transaction orientation (see number 1 in *figure 12*) (Gummesson, 2002, as cited in Schembri & Latimer, 2016). This means that the brand communicates with its consumer, but that the amount of interaction is limited. The interaction sometimes only existed at the point of exchange of products and services (Prahalad & Ramaswamy, 2004, as cited in Kennedy, 2017). This view was influenced by the information processing theories of consumer behaviour. The brand was seen as a controlled asset owned by the firm and strictly controlled by the brand manager. The brand could be built into the minds of consumers by well-coordinated marketing activities which carefully communicated selected attributes, benefits and attitudes of the brand (Keller, 1993, as cited in Gensler et al., 2013). Through for example advertising, these controlled brand stories were communicated to the (potential) consumer (Aaker & Joachimsthaler, 2000, as cited in Gensler et al., 2013). Although consumers always modified the brand stories generated by the brand, their voices were not so strong and could be ignored by brand managers if they wanted to, without too many risks (Gensler et al., 2013).

Then the field of marketing and brand management evolved to a relational approach (2) (Gummesson, 2002, as cited in Schembri & Latimer, 2016). This means that the brand has a one-to-one relationship with the consumers and

actively maintains this relationship. A practical example of this so called 'one-to-many' marketing communication is advertising (Hoffman & Novak, 1996, as cited in Gensler et al., 2013).

After this phase, marketing evolved into many-to-many networks (3) (Gummesson, 2006, as cited in Schembri & Latimer, 2016). This means that not only the brand is connected with the consumers, but that also the consumers communicate with each other. The marketing landscape has experienced a move to digital platforms and it has changed to a more personal connection with a brand in which values are involved. The consumers are part of communities and contribute to brand images and actively generate value (Prahalad & Ramaswamy, 2000 as cited in Ucok et al. (2016).

The fourth phase, is the phase in which marketing is not just seen as a process merely between the consumer and the brand. Marketing should be understood more from a societal standpoint (Hunt, 2007; Kornum & Mühlbacher, 2013, as cited in Voyer et al., 2017). Besides consumers, also other stakeholder groups are identified and taken into account.
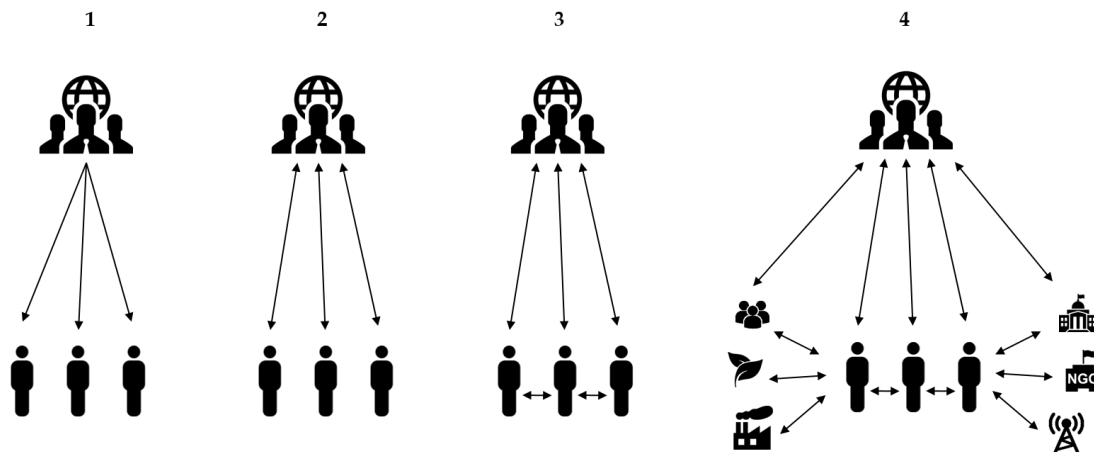
Figure 12: The evolution of marketing

4.2   The identity of the brand

Now that I have introduced the changing field of marketing, I will elaborate more on brand marketing as a concept.

Kotler and Keller (2012) describe that a brand can be a name, sign, term, symbol, design or a combination of these elements. This is intended to identify goods or services of one seller or a group of sellers to differentiate them from their competitors. Other roles of a brand can be to identify the maker, signify a certain quality or securing a price premium. A brand continuously develops

itself through social interactions in different social contexts (Csaba & Bengtsson, 2006 as cited in von Wallpach, Hemetsberger & Espersen, 2017).

In order to make and keep a brand successful, brands actively work on strategic brand management. Strategic brand management is the process of building and ensuring a positive brand attitude all the time (Rosenbaum-Elliott et al. 2015). Activities that entrepreneurs, marketing managers or brand managers within a company work on, are creating a brand vision, ensuring identification of the brand, establishing the brand meaning in the minds of customers, bringing out the right customers responses and converting brand responses (Kotler & Keller, 2012). By persuasive and attractive brand stories, brand managers try to create a rich and clear structure about the brand in the memory of the consumer (Keller, 1993; Srivastava et al., 1998, as cited in Gensler et al., 2013).

A strong brand identity makes sure consumers have clear and convincing reasons to buy a certain brand and it can help brands navigate and adapt to changes in the market (Collin & Porras, 1994, as cited in Roy & Banerjee, 2014). Especially, in competitive markets, a brand depends on its identity and the brand image created by this brand identity (Part et al., 1986, as cited in Roy and Banerjee, 2014).

The different streams in the marketing and brand management field also influences the concept of what brand identity is. Traditionally, literature with a managerial focus, defines brand identity as a unique combination of brand associations that the brand manager or brand strategist wants to create and maintain (Aaker, 1996). Or shortly put by Kapferer (2012, p.37) 'a long lasting and stable reference.' This traditional view emphasizes that brand identity is a creation of decisions and actions made by (brand) managers (Kapferer, 2012).

In brand identity related literature also the term 'brand image' can be found. According to Kotler et al. (2003, as cited in Roy & Banerjee, 2014) the brand image is the true outcome of the brand identity. It is the set of beliefs that consumers hold about the brand. The brand identity creates associations in the minds of consumers with the help of communication mechanisms and this then results in a certain brand image (Martinex & de Chernatony, 2004, as cited in Roy & Banerjee, 2014). Sometimes celebrities, landmarks and historical figures are used to establish a certain brand image and word-of-mouth can strongly influence the brand image (Sasmita & Mohd Suki, 2015).

However, literature with a social focus refutes this traditional managerial vision of brand identity and brand image being two static and separate elements, namely that the brand identity represents the corporation and brand image represents the consumers (de Chernatony & Dall'Olmo, 1998, as cited in Roy & Banerjee, 2014). Social theories (Giddens, 1991, 1967 and Hall, 1996 as cited in

Kapferer, 2012) argue that brand identity is a dynamic, interactive and co-creative process.

In the 'perfect world' seen from a firm's perspective, there is only one collectively held meaning for a brand and this meaning is determined by the firm. This would mean the brand image and the brand identity are exactly the same (Gensler et al., 2013). Although this view can give clear guidance to brand managers, it also gives an illusion of control (Holt, 2004, as cited in Gensler et al., 2013).

There is often a small or big gap between the brand identity and the brand image. Thus, this means a gap between how the brand sees itself and how the consumers see the brand. This is called brand inconsistency and it means that the consumer associates the brand with other things than the brand itself does (Roy & Banerjee, 2014). Nandan (2005, as cited in Roy & Banerjee, 2014) describes this phenomenon as that a brand's message is wrapped in its identity, and that the consumer unwraps this in the form of the brand image. However, in this unwrapping by the consumer there can be a communication gap between the coding by the company and the decoding by the consumers and this can lead to brand inconsistency. Eventually this changes the values the brand wants to stand for (McEnally & de Chernatorny, 1999 & Temporal, 1999, as cited in Roy & Banerjee, 2014).

For some brands, like the brands in this studies, sustainability is a core part of their brand identity. To create a sustainable brand identity, brands have nowadays more ways of doing this than ever. They can communicate about sustainability on their own media channels, influence traditional media coverage and draw public attention with a sustainability topic. Further, brands have today often more resources than non-governmental organizations (NGOs) and advocacy groups to communicate about sustainability and thus can be powerful actors in the sustainable transition. The elements which form the sustainable identity such as Fairtrade ingredients or environmentally friendly aspects of a brand can attract conscious consumers. Marketing of these eco-lifestyle aspects of products is called green marketing (Swen & Olsen, 2017). Especially sustainability messages which are congruent with the perception of the consumer about sustainability, can lead towards a more positive attitude towards the brand. One explanation for this, is that content that is more consistent with the mind-set of the consumer, is easier to process than content that is inconsistent with the mind-set of the consumer. Another explanation is, is that the consumer reacts to messages based on its individual interpretations of sustainability (Linke, Hanks & Zhang, 2016). So it can be effective when brands analyse their green customers to offer sustainable products to which they will be attracted.

4.3 Consumers as important stakeholders

As earlier explained in the theoretical framework about the evolution of marketing and brand management, nowadays more and more stakeholders are also taken into account in brand management. The stakeholder theory, developed by scholars such as Freeman (1984), connects to this thinking. Stakeholders are people and groups that are affected by a certain project (e.g a firm) and/or are in the position that they can influence this project (Andersen, 2008, building on Freeman, 1984).

Brands have relationships with multiple stakeholders such as the government, NGOs, employees, the media and consumers as can be seen in *figure 13*. These stakeholders can have different expectations, objectives, right and responsibilities and can influence the firm's performance (Voyer et al., 2017). According to a number of researchers (Hatch & Schultz, 2010; Merz et al., 2009; Vallaster & von Wallpach, 2013 as cited in von Wallpach, Hemetsberger & Espesen, 2017) brand stakeholders are active participants in brand interaction and co-creation of brand meaning.

One stakeholder group of a brand are consumers. Consumers can influence the brand by for example protesting and sending questions. The consumer's possibilities to influence the brand have grown due to the upcoming of the Web 2.0. Web 2.0 is a term that is used to describe the next generation of internet in which user participation, network effects and openness are important characteristics (Orenga-Roglá & Chalmeta, 2016). In Web 2.0 tools, such as social networks and blogs, consumers can share their opinion about the brand very easily and this can influence the brand. Consumers and all stakeholders are active co-creators of brand meanings (Gensler et al., 2013). Consumers create shared cultural meanings which are transferred to the brands through multiple brand stories. In this way, stakeholders make sense of the role of the brand in the world (Holt, 2003, as cited in Gensler et al., 2013).
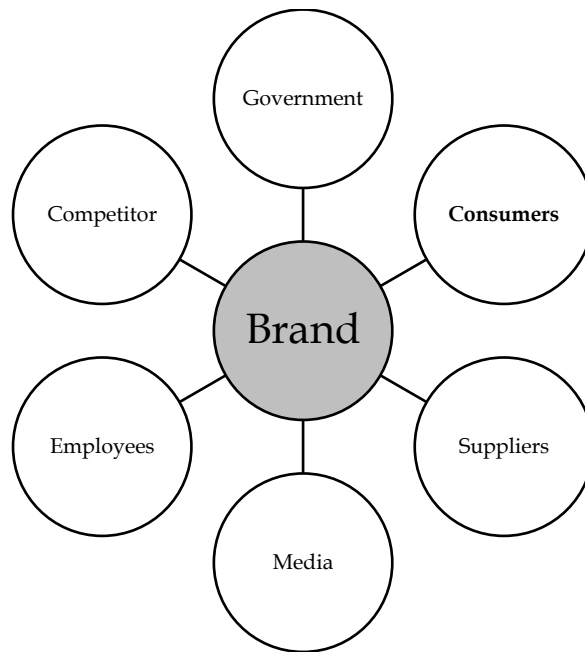
Figure 13: The brand and examples of its stakeholders

The perspective of seeing consumers as an important and influential stakeholder group connects to the consumer culture theory. Consumer culture theorists are inspired by a postmodern view of the marketplace. They see the market is less controllable and this questions fundamentally the nature of brands and the control that these firms have that own the brands (Gensler et al., 2013). Brands are also literally used in culture when speaking about writers, artists, movie makers, designers and produces of mass media. Further, brands are used as resources in the stories they produce (McCracken, 1986, as cited in Gensler et al., 2013).

In a more recent medium of culture, social media, consumers generate a brand culture together (Schembri & Latimer, 2016). Social media platforms give consumers the opportunity to be an active participant in storytelling and co-construct brand meaning, instead of being a passive listener (Singh & Sonnenburg, 2012, as cited in Schembri & Latimer, 2016). Consumers are gaining more and more power with this ability to shape a brand, facilitated by the technological advances (Kennedy, 2017). They are more informed, empowered, networked and seek to have an influence on brands (Prahalad & Ramaswamy, 2004, as cited in Kennedy, 2017). Also they contribute to a brand's identity by spreading brand knowledge, expectations, experiences, ways of usage and evaluations (Mumby & Clair, 1997 as cited in Kapferer, 2012). The quote of Scott Cook, co-founder of Intuit, emphasizes the power of the consumer (as cited in Gensler et al., 2013): 'A brand is no longer what we tell the consumer it is – it is what consumers tell each other it is.'

Hennig-Thureau et al. (2010) even argue that consumer-generated brand stories communicated via social media are more impactful than the stories spread through the traditional channels by the brand. One explanation for this is that consumers judge the content created by other users as more trustworthy and credible than content created by the firm. This means that user-generated social media communications can have a greater effects on consumers' overall perception of brands than social media communication created by the firm (Pornpitakan, 2004).

4.4 The identity of the consumer

The paragraph above explains how consumers can influence brands, but it is good to realize that consumers also use brands to express certain aspects about themselves. Expression by using brands happens in the 'real-world', for example by wearing certain clothes or driving a Tesla car by which the consumer wants to express status and responsibility. Shao (2009, as cited in Gao & Feng, 2016) describes that self-expression is necessary for people in order to create an identity. Sharing about what you daily consume on a social media platform has become an important way of constructing a self-image (Kim, Jang & Adler, 2015, as cited in Zhoa et al., 2013). Obtaining peer acceptance and exchanging social support are part of this process. Zhoa et al. (2013) connect to this thinking and states that individuals use social media as a way to reflect on identities and archive life experiences. Especially in the time of growing ((pre-) adolescence), constructing an autonomous identity is a fundamental task, and this identity is created through interactions and identification by others (Mascheroni et al., 2015). The internet facilitates stages or so called identity spaces where individuals can present themselves. For example by having a personal homepage (Papacharissi, 2002 as cited in Mascheroni et al., 2015), writing a blog (Brake, 2012, as cited in Mascheroni et al., 2015) and sharing content on social networking sites. Because of the reviewability and searchability of social media, Goffman also uses the metaphor of an art exhibition in a museum. The performances of individuals leave digital traces behind and these digital traces can be seen as digital artefacts. The collection and accumulation of the artefacts get the shape of a long-term identity exhibition (Zhao et al., 2013). In this study, the Instagram posts are the digital artefacts that are studied.

Further, the technological infrastructure with social media platforms gives consumers the possibility to reflect on their own consumption through others (Kozinets, Ashman & Patterson, 2015). The term soiveillance is sometimes used to refer to consumers observing themselves via social media like a digital mirror that enables self-reflection. Not only phones but also accessories such as

diet and activity trackers have contributed to this phenomenon (Dinhopl & Gretzel, 2015). A self-verification motive can be the motivation to do this. This means that the consumer wants to show itself to the outside world to establish a self-concept and confirm its self-knowledge (Akker, 1999; Escalas & Bettman, 2003; Sedikides & Strube, 1995 as cited in Gao & Feng, 2016).

The consumer does not only want to verify and reflect on him or herself, but also wants to manage his or her impression. The almost business sounding term used for this in literature is 'impression management'. Gao and Feng (2016) mention in their paper studies of a large amount of researchers which describe that people want to give others a positive impression about them, develop social media relationships and promote their self-status. In this self-presentation individuals engage in selective self-presentation with the goal of controlling the impression made on others, and it also involves how to handle responses from others (Mascheroni et al., 2015).' In practice this means for example that you untag yourself from a picture or video posted by your friends on Facebook, which shows certain characteristics of yourself that you are not so font of or do not want to show on the Internet (e.g. excessive alcohol use, funny dance moves or maybe a more to this study related behaviour, such as eating a McDonalds hamburger).

Gofmann (1959) describes in his article that individuals often seek social acceptance and try to present themselves in the best way possible. A distinction is made between the actual self, the ideal self and the ought self (Farquhar, 2013). In the individual's desire for social acceptance, he or she often aligns him or herself with certain groups, while trying to avoid identification with other groups (Cohran et al., 1988 as cited in Farquhar, 2013). According to Hogg and Reid (2006, as cited in Farquhar, 2013) this categorization of self and others, is driven by a need to reduce uncertainty. Because individuals' identity performances tend to be exaggerated in computer-mediated communication (Geidner et al., 2007; Smith and Kollock, 1999, as cited in Farquhar, 2013), such as social media, studying this identity online can provide valuable insights.

Here I make the link to sustainability again. Because of the desire for impression management, consumers can engage in more ethical and prosocial behaviours as they expect this will result in a positive portrayal of their self-image to the people around them (Griskevicius, Tybur & Van den Bergh, 2010; White and Peloza as cited in Peloza, 2013, as cited in Zhoa et al, 2013). Especially people who want to enhance their self-esteem can be susceptible to these sustainable self-enhancement behaviours (Greenwald, Bellezza & Banaji, 1988, as cited in Gao & Feng, 2016).

Possessions, which are sometimes shown in Instagram posts, display a symbolic meaning of consumption (Cova & Pace, 2006; Muniz & O'Guinn, 2001;

Schau et al., 2009; Schembri, 2009 as cited in Schembri & Latimer, 2016). Consumers continuously redefine what certain products and brands mean in their life, by sharing opinions and ideas and exchange information about them on social media (La Rocca, Madelli & Snehota, 2004, as cited in Schembri & Latimer, 2016). Belk (1988) and Holt (2002) (as cited in Gensler et al., 2013) agree with this viewpoint. They describe that consumers use positions and especially brands as a resource to construct and express their identity. Sustainable brands can have a social status element, which can relate to the higher price of sustainable products. The consumer shows that he or she is wealthy enough to buy these products.

4.5   Co-creation

I have introduced now how a brand identity is created and how a brand plays a role in the creation of the consumer's identity. Also I have explained what the role of sustainability is in this identity creation process. Let's dive deeper in process of sustainable identity creation between the brand and their consumers; let's talk about co-creation.

The concept of co-creation is a widely used term used in different fields of business research such as innovation and marketing and for this study co-creation in the context of marketing is most relevant. Co-creation in this perspective means that brands and consumers create value for the brand together. This value can be a better brand image, creative idea gathering or giving more visibility to a brand.

Seen from an abstract perspective, co-creation is a process where more than one party work together systematically to learn, interact and share information with the goal to create value (Prahalad & Ramaswamy, 2004; Vargo & Lush, 2004, as cited in Kennedy, 2017). In the context of brands, Kennedy and Kennedy (2017) state, that brands are co-created by their consumers, but also by interaction with other stakeholders.

When brands are active on social media they can co-create on the social media platform prompted or non-prompted. Prompted co-creation means that a brand or a person explicitly asks the consumers to engage. Non-prompted co-creation means that a brand or a person tries to engage consumers, but not in an explicit way (Kennedy & Guzman, 2016, as cited in Kennedy, 2017), for example by owning a forum about a certain topic without a strong presence of the brand on this forum. A prompted post on social media with the emphasis on co-creation, can increase purchase intention and brand commitment among consumers. Also consumers seemed to prefer messages co-created by the brand itself, rather than endorsed by a person like a celebrity (Kennedy, 2017)

Co-creation can be used for sustainability and Corporate Social Responsibility (CSR) related goals. Kull and Heath (2016) noticed that brands increasingly use digital platforms and social media apps, to implement their CSR activities and use consumer co-creation initiatives in the social domain. A concrete example of this is the Dutch crowdsourcing website called 'Battle of Concepts' (www.battleofconcepts.nl). Companies post their challenges on this website and let students, start-ups and young professionals search for solutions in reward for a monetary price. Already on the homepage can be seen, that there is a strong focus on sustainable topics. One challenge is about increasing diversity, one about an innovative transportation concept for disabled sportsmen and one about increasing the environmental sustainability of an organisation.

There are many ways for brands and consumers to co-create, especially by using digital tools and technologies such as social media platforms. Brands can engage their consumers to interact and think about the brand (Malthouse et al., 2016). Social media platforms in particular, such as Instagram, play a facilitating role in this. The platforms represent a virtual space where consumers can create and share content and interact with others who are interested in the same brands, goods or topics (Cuomo et al., 2016). Although this actively involving of consumers on social media can be an effective marketing method to reach certain marketing goals, it is good to be aware that normally only a small part of consumers create content and engage online with the brand (Malthouse et al., 2016).

In marketing literature, the term consumer-generated content (CGC) is used when talking about all the publicly disseminated messages created by the consumer in which the subject is a collectively recognized brand (Berthon & Pitt, 2008 as cited in Ucok Hughes et al., 2016). Another more general term for this type of content used by marketing scholars, is called user-generated content (UGC) and I will use this term in this thesis. UGC is media content created by users to share information or opinions with other users (Tang et al., 2014). According to the Organization for Economic Co-operation and Development (2007) UGC is content that is made publicly available over the Internet, that reflects a certain amount of creative efforts and that is created outside professional routines and practices.

Until now, I mostly highlighted the positive effects of influence and co-creation. However the increasing consumer influence and the lack of possibilities to control the brands by the company itself, can also have unwanted effects. There is a fine line between brand exposure and brand trivialization. Brand trivialization means that there is loss of image control which could lead to prestige control. This is one of the biggest social media marketing challenges that brands can face (Ucok Hughes et al., 2016). Rokka and Canniford (2016)

show this in their research about champagne brands on Instagram. They conducted a critical visual content analysis on firm-generated and user-generated posts on Instagram with the hashtag of a champagne brand and #selfie. After coding with interpretive categories, the researchers found out that the images produced by the consumers differ strongly from the images produced by the brand. Thus, they concluded that selfie images can destabilize temporal, symbolic and material properties of brand assemblages. Social media has changed the way how brands create and share the brand stories they want to tell to their consumers (Ucok Hughes et al., 2016). Even when brands are not active on social media, consumers can co-create brand identities and other consumers can be influenced by this, which makes it trickier to ignore consumers' voices (Gensler et al., 2013). Brand managers have lost their role as the main author in writing brands' stories as Kuksow, Shachar and Wang (2013) describe. The increase of consumer power, facilitated by the Web 2.0 resulted in co-creation (Kennedy, 2017) and shaped the collective creation of new brand images (Berthon et al., 2005, as cited in Ucok Hughes et al., 2016). Berthon et al. (2012) make this clear in *figure 14*. They show that the locus (which can be loosely translated into 'place' or 'centre') of activity shifts from the desktop to the web, that the locus of value production shifts from the firm to consumers and that the locus of the firm shifts from the firm to the collective.
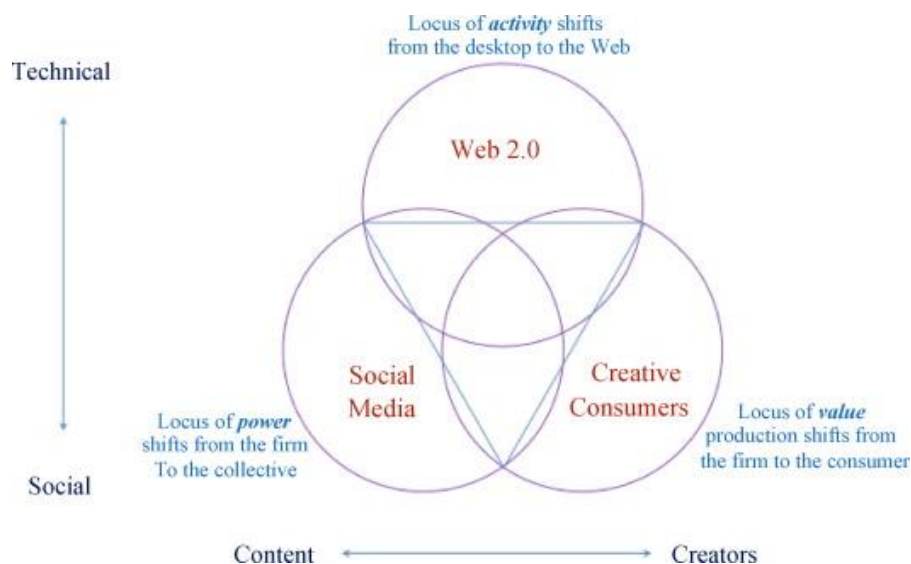
Figure 14: Web 2.0, social media, and creative consumers (Berthon et al., 2012)

Brands are however not 'doomed' to watch passively what their consumers communicate about the brand. Brands can integrate the consumer-generated brand stories in their own communication mix and in this way create attractive brand stories together. The key and sometimes challenge lies in the coordination

of this process (Gensler et al., 2013). Brands can for example reward consumers if they engage in a certain behaviour (e.g. through a comment) (Malthouse et al., 2016). An example of positive co-creation on Instagram in the literature is given by Roncha and Radclyffe-Thomas (2016). They conducted a content analysis on posts on Instagram with shoe brand TOMS' hashtag and 2015 campaign #withoutshoes and interviewed the firm's employees. The researchers found out that the campaign generated higher levels of engagement with the brand, shared ownership and increased effectiveness of the campaign. Thus, co-creation strategies can foster customer relationships and also lower the costs for marketing and research and development for the firm.

Instagram is one of the social media platforms on which co-creation between brands and consumers can take place. Before describing how I conducted research on Instagram and captured the co-creation between brands and consumers, I will describe what Instagram is and why consumers use Instagram.

Instagram is a fast growing social network site globally (Chaffey, 2017) and a popular platform to communicate about food (Tandoh, 2016). It came to market in 2006 as a mobile phone app, to take advantage of the cameras equipped in phones (Tingetal, 2015 as cited in Eagar & Dann, 2016). Since 2012 Instagram is owned by Facebook (Page, 2015). In The Netherlands, Instagram has approximately two million users, from which 992 thousand on a daily basis. Facebook is still the biggest social media outlet in The Netherlands with 9,5 million users from which 6,8 million daily (Oosterveer, 2016).

The Instagram app provides filters with which the user can change the colours, contrast etc. before sharing the picture. Nowadays, it also has many other functions such as making videos and photos with special effects. Instagram gives the opportunity to quickly and easily share pictures at its social network.

With the use of searchable hashtags, it creates to ability for photos to be found by other users and become 'a self-contained conversational thread' as Cedillo (2014, as cited in Eagar & Dann, 2016) describes. According to Simply Measured (2015, as cited in Stathopoulou et al., 2017) 70% of the most frequently used hashtags in 2015 were brand related.

According to the research of Sheldon and Bryant (2016), there are four main reasons why people use Instagram. The most important reason is the surveillance of others. Users like to see status updates of friends, see what other people share, watch pictures of people without them noticing and because it is fun. The second most important reason is documentation. This means that the user can portray its life through photos, can remember special events and important happenings and share these with others. Two less important reasons named by users were coolness and creativity. With coolness Sheldon and Bryant mean that users want to become popular, want to self-promote and provide

visual status-updates to their friends. Creativity means for users that Instagram provides them the opportunity to connect with like-minded people and to show off photography skills and other art skills. Seen from a wider scope, consumers create content for reasons such as self-promotion, intrinsic enjoyment, and a desire to change public perceptions (Berthon, pitt, and Campbell, 2008). Fruther, women are more likely to be active on Instagram (Sheldon & Bryant, 2016).

An important function of Instagram and also this study is the use of hashtags on this platform. A hashtag is the sign '#' followed by a word or a phrase. Examples can be #love #food or #fairtrade. The hashtag is used to signify the theme of the content in the Instagram post. Also it is used as a hyperlink and many brands are promoting themselves and grow their engagement by using these hashtags (Ucok Hughes et al., 2016). If the consumer clicks on the hashtag, he or she can find content that has been posted with the same hashtag.

In *figure 15*, an example an Instagram post is shown. An Instagram post consist of the following parts: Picture, Username, Caption, Hashtags, Comments, Likes and Date. For this study the focus is on the hashtags.
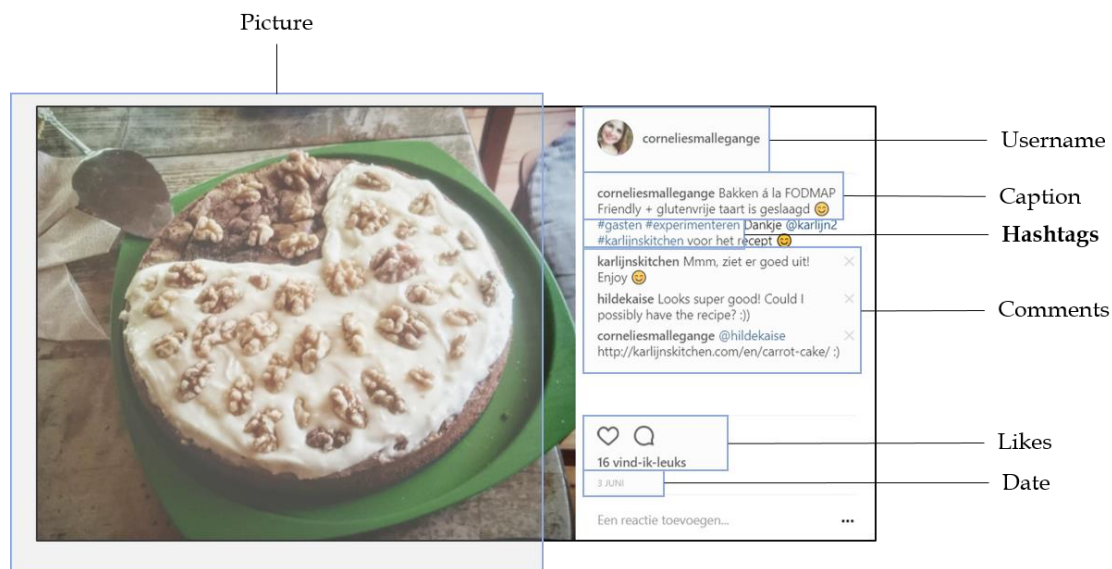
Figure 15: The different parts in an Instagram post

This research is not the only study interested in how people communicate about food on Instagram. Holmberg et al. (2016) collected Instagram posts that had been tagged with a birthday related hashtag. They identified and categorized food items and also analysed the way how food was presented in the posts. The conclusion of the research was that adolescents create a large amount of content with food in it and in the case of the birthday related hashtags, the majority of the food is high in calories and low in nutrients. Food is most often portrayed as a still life, such as in food advertisements.

5 RESEARCH METHODS

In this chapter I will explain which research methods have been used to find answers to the research questions and why I have chosen for these methods. Further, I will describe how the research was conducted in practice with the chosen methods.

5.1 Research design

The research design is the framework that is created to seek answers to the research question. It gives direction of the research and provides a plan for how the collection and analysing of evidence will take place to answer the research question (Flick, 2008). The research design of this thesis is decided with the help of knowledge obtained during the master thesis tutorial provided by the university, research designs described in academic articles, feedback from the thesis supervisor and literature on conducting research.

5.1.1 Philosophical assumptions

The way how a researcher views the world and how he or she thinks knowledge is derived and which knowledge is valid or not, influences the way how this researcher conducts his or her research. This is called the philosophical assumptions of the researcher (Farquhar, 2012). In this paragraph, I will highlight the philosophical assumptions behind my thesis and the ones that are contrasting with these. Highlighting the philosophical assumptions is not always included in a thesis. However, I find this important because my philosophical assumptions have influenced the way how I approached the research, made choices and interpreted the results.

      I will start by describing the ontological status. The ontological status is the way the researcher views the world. Two different ontological perspectives are distinguished by Kuhn (1971): the nomothetic and ideographic perspective. In the nomothetic perspective, the researcher assumes that reality only exists as an objective structure that is not influenced by people's perceptions. In the ideographic perspective, the researcher understands the world as a social construct which can only be studied by analysing the perceptions of participants or actors in these constructs. This thesis has an ideographic perspective, which can already be recognized by the words 'co-creation' and 'image' in the title of the thesis.

Linked to the two ontologies described above, are the two epistemologies, positivism (linked to the nomothetic ontology) and interpretivism (linked to the ideographic ontology). The epistemology is the way how knowledge is studied. In the positivistic epistemology, phenomena are perceived to be real, precise and measurable. Positivistic researchers perceive science to be free of values and they try to eliminate bias in every stage of their research. In the interpretivistic epistemology, also called phemenological or social constructionistic epistemology, phenomena are perceived to be socially constructed. Interpretivistic researchers acknowledge the bias in their research and value the explanation of this. Sequent to the ideographic ontology, this thesis has an interpretivistic epistemology. I acknowledge subjective meanings and do not try to reduce the existing complexity showed by the results (Furquhar, 2012). This will lead to rich insights and a fuller understanding of the phenomena expressed by the communication on Instagram.

Next follows the research approach, which can be deductive or inductive as described by Furquhar (2012). In research with a deductive approach, a theoretical framework is developed after which this is tested. Research with an inductive approach has a reversed logic. The researcher then first explores and understands the data, looks for patterns in the data and eventually contributes to the generation of theory. Not always a strict line is drawn between the inductive and deductive research approach. Also in this research, the developing of the theoretical framework was created simultaneously with the collection and analysis of the data.

5.1.2 Multiple case study as research strategy

The research strategy provides the overall direction of the research and the methodological framework (Farquhar, 2012). The research strategy of this study is a case study, and to be precise, a multiple case study.

A case study investigates a contemporary phenomenon deeply within its real-life context. Because the phenomenon is studied in its context, I am able to give insights in how it occurs in a particular situation. In this study, the context is the social media platform Instagram. Case study research does not try to control the context, such as in an experiment (Yin, 2009). During this study for example, the Instagram posts were not made in a controlled environment. In case study research both quantitative and qualitative data can be used and phenomena that then appear will be understood through enfolding it with literature (Farquhar, 2012).

This case study is to be more specific a multiple case study. This means I study five brands and their consumers instead of one brand. Thus, in this study there

are five observations of the same phenomenon. There is replication and the cases independently confirm emerging constructs. Compared to a single case study, this will lead to more generalizable and robust results (Lewis-Beck et al., 2003).

The multiple case study has been chosen as the research strategy for this study, because it gives a relatively full understanding of the nature and the complexity of the complete phenomenon, rather than studying one very specific extracted element. Especially for descriptive and explanatory research such as this study, the case study is a particularly suitable research method (Farquhar, 2012). For example, if compared to statistical research, the main advantage of case study research is that it gives deeper understanding of specific elements of a phenomenon (Lewis et al., 2003).

However, there are also elements of the case study that are being criticized in the academic world. The number of units (in this study the sustainable brands) is small in compared to other research strategies, such as surveys. This could harm the generalizability of the research (Farquhar, 2012). Other common critic on case study as a research strategy is the lack of objectivity (Remenyi et al., 1998). By providing rich insights that are obtained in a transparent way and with acknowledging bias and subjectivity, these critics on case study research will be overcome in this study. If a case study is conducted in the right way, it can provide credible and valuable insights in a certain phenomenon. Interestingly, the two most well-known contributors to the theory about case study research, Yin (2009) and Stake (1995) have different philosophical assumptions thus opinions and practices. Yin is seen as a positivist researcher while Stake is seen as an interpretivist.

Within case study research, triangulation is a critical part of the study. Explained in simple words, triangulation means that the researcher studies the phenomenon from different sides. These different sides can be found in the data (data from different sources and times), in the investigator (use of multiple researchers to interpret the data), in the theory (use of multiple theoretical perspectives for the interpretation of one data set) and in the methodology used (different techniques within the same method or different methods with the same object) (Farquhar, 2012). Triangulation can be found in several parts of this study. The first triangulation type is the data. Data is collected from one whole year for each brand. Also, data is collected from multiple brands. The second triangulation type applied is theoretical. As can be derived from the theoretical framework, the phenomenon studied in this thesis is being explained by using theories from the marketing, sustainability and stakeholder field. The triangulation types of investigator and method are not used and limitations of this to the credibility of the research are further explained in the discussion chapter.

5.1.3 Selection of the case brands

Multiple case-study as a research strategy means that multiple brands are being studied. For this study the followings brands from a variety of food sectors have been chosen:

- Peeze (coffee)
- Seamore (seaweed pasta and bacon)
- Kromkommer (soups)
- Tony's Chocolonely's (chocolate)
- Professor Grunschnabel (ice-cream)

The selection of the above mentioned brands has been established by theoretical sampling. This means that the brands are chosen to fill theoretical categories and clearly highlight the phenomenon that I want to study in this thesis (Lewis-Beck et al., 2003). In this way the case firms provide a chance to replicate or extent emergent theories (Eisenhardt, 1989). In contrast to theoretical sampling, in research often random sampling is used. This means that each brand has an equal chance to be included in this study as a case brand (Zikmund et al., 2013). The brands suitable for this study needed to comply with a list of criteria (mentioned below) in order to be theoretically relevant. The sample size, thus the pool of potential case brands, was too small for random sampling.

The following criteria have been used in the sampling of this study:
The brand…

- Is sustainability focused or sustainability is an important aspect of their brand;
- Is active in the food industry;
- Is head quartered in the Netherlands;
- Has one or more offline selling channels;
- Exists more than two years;
- Is categorized as a Small or Medium Enterprise (SME);
- Uses both offline and online channels actively;
- Communicates on Instagram in Dutch and/or English;
- Has consumers which are active on Instagram;
- Uses, among other channels, Instagram to interact with consumers.

In theory this might seem like a solid manner to approach sampling, however during the selection of the cases some criteria had to be adjusted or replaced in order have a selection of case brands that highlight the phenomena I wanted to study. Next to this reason, the selection of cases was adjusted due to emerging insights during the study. Practical issues, such as brands not having sufficient Instagram posts, also formed a part of the sampling. *Table 6* shows the selected case brands with their relevant Instagram information.

Table 1: Brands on Instagram: general information

Brand	Instagram user name	Hashtag	Number of followers at 01.03.2017
Kromkommer	@krommunity	#kromkommer	4399
Tony's Chocolonely	@tony	#tonyschocolonely	38800
Peeze coffee	@peeze_koffie	#peeze	494
Seamore	@seamorefood	#seamore	934
Professor Grunschnabel	@professor_grunschnabel	#professorgrunschnabel	5303

The possible case brands for this study have been identified via multiple ways. First the Google search engine was used by typing in relevant keywords in English and Dutch such as 'sustainable brand', 'food' and 'The Netherlands'. I am aware that the searches are already narrowed down by Google based on for example my profile, location and previous searches. Secondly, the assortment of a large Dutch supermarket was scanned for sustainable food products. Lastly, I used my memory of sustainable food brands which appeared to me on Twitter, sustainability focused conferences or in magazines in the previous years. As can be seen in *table 1*, there are large differences in the Instagram use by the brands themselves and their users. The brand Tony's Chocolonely had for example 38.8000 followers in March 2017, while Peeze had 494 followers at this measuring moment.

5.2 Data collection

This sub chapter explains what type of data is collected during the study and how this data has been collected. As can be derived from the title of this study, social media played an important role in this study. The research conducted in this study can be classified as digital or internet research. This can mean that a researcher studies certain (technical) functionalities of the internet, that a researcher uses the Internet as a tool to analyse, store and collect data or that the researcher studies the Internet as place where interesting social action and cultural creation happens (Silverman, 2016). That last aspect of digital research, is the classification that most strongly connects to the research design of this study. I chose digital research because on this platform, I could analyse the sustainability communication of brands and consumers, without disturbing them. Also, studying the phenomenon on a social media platform would give newness value to already existing knowledge about sustainability, co-creation

and brand image. Further, as recognized by Farquhar (2012), digital research provides convenient ways of conducting research. This can be handy and time saving when the researcher knows he or she will be moving frequently between different locations where research is conducted, such as in my case.

Qualitative data forms the most important part of the data collected in this study. In qualitative research, the researcher studies phenomena in their natural setting, with the goal to make sense of or interpret these phenomena. A set of methods can be used to make them visible (Flick, 2008). In practice, this resulted in the collection of the hashtags in Instagram posts. However, I did not only study the qualitative side of these hashtags, but also to the quantitative side. I counted the amount of times sustainability hashtags were used by the brands and their consumers.

The data that is existing on the social media platform Instagram, was collected via content analysis. Content analysis is the intellectual process of categorizing qualitative textual or visual data into categories, in order to identify patterns and relationships between variables. In this way the amount of data is reduced and meanings can be derived from them (Given, 2008). The data in this research consisted of the sustainable hashtags created by the brand and their consumers.

Content analysis is a frequently used method of research to study social media (Ashley & Tuten, 2014). Because the content is studied after it has been created, content analysis can be called an unobtrusive method (Holmberg et al., 2016). This means that biased results due to social desirability, such as in interviews, are limited.

Content analysis in digital research is often supported by analytical tools that support researchers in the collection and analysis of the data. There are companies that have specialised in collecting and analysing data from social media platforms and they sell their services to for example businesses and researchers. Examples of these companies are Crimson Hexagon, Minter.io and Pixlee. I have explored tools provided by these companies for possible support in this research. This did not result in using them due to two main barriers. First, the analytical tools provided by the companies analyse all the textual data and do not provide options to specify on hashtags only or sustainability terms only. Secondly, most tools require a paid membership with access to the Instagram account of the selected companied. By choosing some 'one-month-free' try out packages, I have explored the analytical functionalities with the use of my own Instagram account. Because the analytical tools did not provide a good manner of data collection and analysis, I decided to collect and analyse the sustainability hashtags manually with the help of basic computer programs. There were two main tasks, namely to analyse the sustainability hashtags created by the brands

(called firm-generated content in this thesis) and the sustainability hashtags created by their consumers (called user-generated content in this thesis). In *table 2*, the steps in data collection are visualized.

The firm-generated content was collected by first going to the Instagram account page of the brand. Then I went to the first post of the month and collected the sustainability hashtags from the post if the post fulfilled the criteria. I copied the sustainability hashtags in a Notepad document and continued with this until the end of the month and saved the document. After this, I started with a new month until I had data from a whole year and all the case brands (See *table 2)*. Occasionally, if the brand created few sustainability hashtags, I collected sustainability hashtags of one year instead of collecting them per month.

The collection of the user-generated content started with going to the Instagram homepage. The hashtag of the sustainable brand was typed into the search bar and then I scrolled to the first post of a month in the studied time period of the 1st April 2016 until the 31st of March 2017. I checked if the post met the criteria and if it did, I copied the sustainability hashtags to a Notepad document. Similar to the collection of user-generated content, I started with a new month and continued until I had data from a whole year and all the case brands.

Table 2: Steps in data collection

Steps in data collection					
	Start		1	2	3
Firm-generated content	Go to the Instagram account page of the sustainable brand		Go to the first post of month x	Check if the post meets the criteria	Copy the hashtags of the post in a Notepad document
User-generated content	Go to the Instagram homepage	Type in the search bar #sustainable brand	Go to the first post of month x	Check if the post meets the criteria	Copy the hashtags of the post in a Notepad document

Repeat step 1,2,3 until the last post of the month

The sampling unit for the content analysis consisted of the posts produced between April 2016 and March 2017 that were produced by the brand itself and their consumers with the hashtag of the sustainable food brand. Content created by users who had set their Instagram settings to 'private' could not be analysed. Although consumers are the main creators of the UGC related to the sustainable food brands, also other users than consumers are included in this research. A person can for example make a picture of the brand in a shop and post this picture on Instagram, without actually buying and/or consuming the product. Further, there are also employees creating content about the brand, bloggers, business partners and business to business clients. Because the identity of the content creator is not always clear or can be double (e.g. employee and consumer), all this generated content will be categorized in the category of the consumer. The main content creators of the user-generated content are namely consumers.

Post were not collected if they were mainly written in another language than Dutch or English, if they showed a video instead of a picture and if they did not relate in any way to the sustainable food brand. Also, because of the large amount of user-generated content, from the brand Tony's Chocolonely, only the posts were analysed that contained one or more sustainability hashtags.

Although the posts analysed in this thesis were publically available on the internet, I handled them with care. Some posts provided many personal details and users might not always be aware of the exposure they have via Instagram. In this thesis, specific user names and eyes in posts are covered with a black shape. In this way the information in the post will not lead to the identification of the user that created the post.

5.3 Data analysis

This chapter described how the data is analysed, which has been collected in the data collection process. In the data analysis process, meaningful insights related to the research question were captured.

As described in the paragraph about conducting a case study, research can be conducted in multiple ways. Also in the data analysis part different approaches are applicable. For this data analysis, I chose the inductive analysis. This means that I tried to identify common ideas, themes and theoretical frameworks when I studied the data. An opposite data analysis method which was not used in this study, is deductive analysis. This means that with the data, a theory or conceptual framework is tested (Farquhar, 2012).

The method that was used to conduct the inductive analysis was coding. Coding is one of the most common methods used in multiple case study research

(Stake, 2006). The aim of coding is to capture the data that is important for the research objective. Without this step, it is challenging to interpret the collected data in a meaningful way (Farquhar, 2012). In practice this meant that the sustainability hashtags in the Instagram posts were being thematically clustered into sustainability categories. These categories were established by a process of open coding based on a small part of the total data pile, namely 50 UGC posts and 50 FGC posts of three brands. This process led to about 15 categories, which were then merged into ten final categories. In this open coding process, I formed bit by bit categories from observed hashtags.

In order to control if the created categories in the open coding process were the right ones, preliminary research was conducted. The three brands Kromkommer, Peeze and Seamore were selected for this preliminary research. Due to the limited amount of UGC or FGC posts created by these brands, analysation was fairly easy compared to a brand with a large amount of UGC such as Tony's Chocolonely. From every brand the UGC and FGC hashtags were collected from the month March 2017 and categorized in the categories defined in the open coding process. After the preliminary research the categories were not changed, but during the process the boundaries of every category were sharpened.

Next to this process, which I would use for the rest of the research, I also collected a small amount of other data which would help me to establish a better image of the role of sustainability in the UGC and FGC communication. I counted how many UGC and FGC posts contained sustainability content of the posts per brand. Also I counted how many posts with the hashtag of the brand were excluded due to it being a video, use of another language than English or Dutch or a non-brand related post.

The result of the preliminary research showed that Healthy eating, lifestyle & dieting, Sustainability & general and Diversity were the most used categories for sustainability, looking at the UGC and FGC sustainability hashtags combined. Also it showed (see *figure 16*) that some brands have many posts that contain sustainability content (e.g. Kromkommer FGC), while other brands have few posts with sustainability content (Peeze UGC). Also it showed that some hashtags of brands show posts on Instagram that have little to do with the brand itself, such as Seamore UGC.
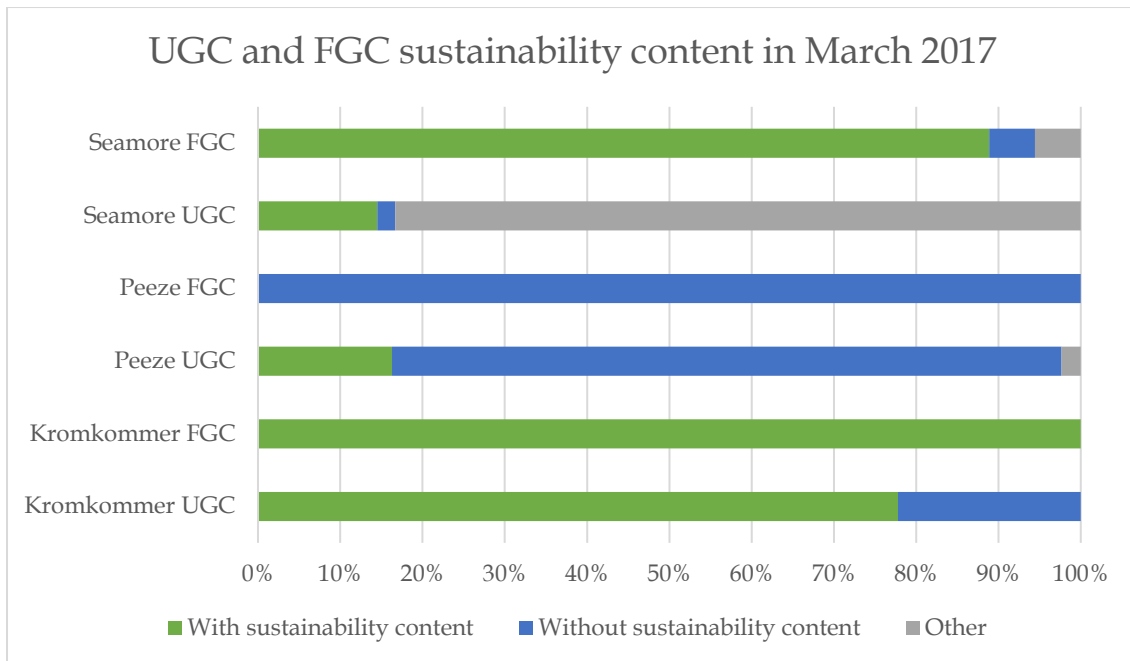
Figure 16: Posts with and without sustainability content in the preliminary research

As described in the chapter about the data collection process, the hashtags were copied into a Notepad document. The Notepad removed variations in sizes and fonts from the copied text. After combining the monthly hashtags together in one Notepad file, the hashtags were transferred to a Word document to remove the hashtags. This was simply done by pressing Ctrl + F, searching for the # sign and replacing it with a space. After the hashtag removal process, the pile of hashtags was transferred to an online tool that counted the frequency of the words and also ordered them in an alphabetical order. This step was conducted to prepare the hashtags for categorization. Then, the sustainability hashtags with their frequency numbers behind them, were copied into the matching category in an Excel file. Hashtags that could not be classified as sustainable or hashtags in other languages then English or Dutch were not copied into the categories in Excel. After this categorization process, the amount of hashtags per category were counted. Then, this data was transferred into graphs for better insights in them.

Although the coding is a useful method to gather insights in data, there is a certain amount of subjectivity involved and when coding with a group of researchers this can influence the reliability of the research. Several steps can be taken however in order to make sure researchers code in the same way. For example by conducting a reliability assessment and creating a coding protocol. Because I conducted the coding by myself, these intercoder reliability steps were not needed.

5.4 Data storage

The collection of unanalysed and selected hashtags was stored per brand in a Notepad document. The Excel document with all the sustainability data was stored in two places: (1) The hard-drive on my laptop and (2) A Google Drive folder. In this way possible data loss was prevented.

6   RESEARCH FINDINGS

In this chapter, I will describe the findings that were the result of the data collection and data analysis process, as described in the chapter above. In this introduction, I will give an overview about how many sustainability hashtags the brands and their consumers created. Then I will continue with describing which sustainability hashtags brands used frequently and their consumers used frequently. Then I will move upwards from hashtag to category level, and describe how frequently the brands and their consumers communicated in the different sustainability categories. Next, I will compare the results of the brands and their consumers and highlight the similarities and differences between them. The chapter ends with again a level higher, now looking collectively at which sustainability categories brands and their consumers communicate about most frequently.

Table 3 illustrates the big differences in the amount of sustainability hashtags between brands and consumers and between the different case brands. For example with one brand, such as Peeze, both consumers and the brand do not produce large amounts of sustainability hashtags on Instagram. With other brands, such as Tony's Chocolonely and Professor Grunschnabel, consumers produce much more sustainability hashtags than the brands. Especially related to Tony's Chocolonely's case, consumers generate more content on Instagram than the brand itself. However, sometimes the brand creates more sustainability hashtags than the consumers create, such as in the case of Seamore. With the brand Kromkommer, there is a quite equal amount of sustainability hashtags created.

Table 3: Amount of sustainability hashtags in UGC and FGC

Brand	Peeze	Seamore	Kromkommer	Tony's	Professor Grunschnabel
Number of FGC sustainability hashtags April '16 – March '17	58	1201	742	66	225
Number of UGC sustainability hashtags April '16 – March '17	146	406	567	4506	1102

6.1 Similarities in sustainability hashtag use

In this paragraph the sustainability hashtags that are most frequently created by the brands and their consumers are displayed. The results of the FGC and UGC are compared and also the results are shown if consumers take over sustainability hashtags that the brands create.

The tables with the results have the following structure:

Table 4: Results table with explanation of the different elements

The brand from which the results are shown

The sustainability category in which the sustainability hashtags are categorized.

The 5 most used sustainability hashtags are mentioned here together with their frequency of appearance.

Brand's most popular hashtags			
FGC Hashtags	N	UGC Hashtags	N
1. Sustainability category			
1. #sustainabilityhashtag	x	1. #sustainabilityhashtag	2
2. #sustainabilityhashtag	x	2. #sustainabilityhashtag	1
3. #sustainabilityhashtag	x	3. #sustainabilityhashtag	1
4. -	-	4. #sustainabilityhashtag	1
5. -	-	5. #sustainabilityhashtag	1
Total	**X**	Total	**XX**

In some sustainability categories too little hashtags are created to complete the top 5. Then a – symbol is written down.

The total amount of hashtags, **including the hashtags that are not in the top 5.**

6.1.1. Peeze

In the category Sustainability general & other, the most used FGC sustainability hashtags are #duurzaam [sustainable] (*n=5*), #mvo [CSR] (*n=3*) and #sustainable (*n=3*). Consumers use similar hashtags, namely #duurzaam [sustainable] (*n=5*), #sustainable (*n=4*) and also #biobased (*n=3*). Thus, in this category, the terms used by Peeze and its consumers are very similar.

In the category Origin, supply chain & Fairtrade the most popular sustainability hashtags used by Peeze are #fairtrade (*n=5*) and

#koffiemeteenverhaal [coffeewithastory] (*n=3*). Consumers use #fairtrade (*n=27*) and also #maxhavelaar (*n=4*). The Max Havelaar label is connected to Fairtrade and also strives for fair trading. These results show that the terms used by Peeze and its consumers are quite similar.

In the category Social issues, charity & ethics, the most popular hashtag used by Peeze, is #communitea (*n=5*). The other FGC hashtags are just mentioned once. Also in de UGC, #communitea (*n=15*) is mentioned relatively frequently. However, it is questionable if #communitea should be seen as a sustainability hashtag. Communitea is namely a product name of Peeze's tea, which emphasizes the community aspect of their tea.

In the other sustainability categories too little UGC and/or FGC was produced to extract insights. From the three categories analysed, it can be noticed that the sustainability hashtags used by Peeze and its consumers are fairly similar. The sustainability hashtags are quite common ones and are not merely related to the sustainable aspects of specifically Peeze.

Table 5: Peeze's most popular FGC and UGC sustainability hashtags

Peeze's most popular hashtags			
FGC Hashtags	N	UGC Hashtags	N
1. Healthy eating, lifestyle and dieting			
1. -	-	1. #eatclean	2
2. -	-	2. #afslanken	1
3. -	-	3. #afvallen	1
4. -	-	4. #clean	1
5. -	-	5. #eatcleantraindirty	1
Total	**0**	Total	**39**
2. Vegetarianism			
1. -	0	1. -	0
Total	**0**		**0**
3. Origin, supply chain & Fairtrade			
1. #fairtrade	5	1. #fairtrade	27
2. #koffiemeteenverhaal	3	2. #maxhavelaar	4
3. #fairplanet	1	3. #faircoffee	2
4. #fightforfair	1	4. #fairtradecoffee	2
5. #maxhavelaar	1	5. #eerlijk	1
Total	**14**	Total	**41**
4. Sustainability general & other			
1. #duurzaam	5	1. #duurzaam	5
2. #mvo	3	2. #sustainable	4
3. #sustainable	3	3. #biobased	3
4. #biobased	2	4. #sustainability	2
5. #bewustgenieten	1	5. #bewust	1
Total	**18**	Total	**18**

5. Diversity			
1. -	-	1. #gayguy	1
2. -	-	2. #gaynl	1
Total	**0**	Total	**2**
6. Environmental issues			
1. #co2	3	1. #compostabe	1
2. #klimaatneutraal	2	2. #compostable	1
3. #groenestroom	1	3. #composteerbaar	1
4. #klimaateffecten	1	4. -	-
5. #klimaatneutrale	1	5. -	-
Total	**8**	Total	**3**
7. Social issues, charity & ethics			
1. #communitea	5	1. #communitea	15
2. #dankbaar	1	2. #partnership	2
3. #peezefoundation	1	3. #peezefoundation	2
4. #verbinding	1	4. #development	1
5. -	-	5. #people	1
Total	**8**	Total	**21**
8. Organic & natural			
1. #biologisch	1	1. #biologisch	8
2. -	-	2. #organic	4
3. -	-	3. #bio	2
4. -	-	4. #biologischemelk	1
5. -	-	5. #organiccoffee	1
Total	**1**	Total	**17**
9. Activism, change & saving			
1. #bettercoffeeforabetterworld	5	1. -	-
2. #impact	2	2. -	-
3. #betterteaforbetterworld	1	3. -	-
4. #makecoffeebetter	1	4. -	-
Total	**9**	Total	**0**
10. Self-sufficiency, handmade & homegrown			
1. -	-	1. #handmade	2
2. -	-	2. #zelfgemaakt	1
Total	**0**	Total	**3**
Total all categories	**58**	Total all categories	**144**

6.1.2 Seamore

Healthy eating, lifestyle & dieting is the category in which most FGC sustainability hashtags could be categorized. The most popular FGC sustainability hashtags are #lowcarb (*n=128*), #lowcalorie (*n=124*) and #glutenfree (*n=120*). These hashtags are also used by their consumers, but in

lesser extent, namely #lowcarb (*n=11*), #lowcalorie (*n=5*) and #glutenfree (*n=8*). Consumers use other sustainability hashtags in this category more often, such as #healthyfood (*n=28*), #healthy (*n=18*) and #cleaneating (*n=12*). Thus, in this category there is a difference between the sustainability hashtags used by Seamore and its consumers.

In the category Vegetarianism, the most popular FGC sustainability hashtags used are #vegan (*n=101*), #veganfoodshare (*n=70*) and to lesser extent #vegetarian (*n=2*). Also in the UGC, #vegan (*n=13*) is often used and #vegetarian (*n=4*) as well. #veganfoodshare (*n=0*) is not used, and instead #plantbased (*n=8*) is used more often. Thus, in this category the use of sustainability hashtags about vegetarianism is somewhat similar.

The last significant category is 'Organic & natural'. The most popular sustainability hashtags used by Seamore are #bio [short version of #biologisch [organic] (*n=80*) and #organic (*n=33*). Users also use #bio (*n=3*), although #organic (*n=10*) and #naturaltemptation (*n=5*) are used more often.

Thus, from this analysis can be seen that consumers use different sustainability terms in the same sustainability category as Seamore.

Table 6: Seamore's most popular FGC and UGC sustainability hashtags

Seamore's most popular hashtags			
FGC Hashtags	N	UGC Hashtags	N
1. Healthy eating, lifestyle and dieting			
1. #lowcarb	128	1. #healthyfood	28
2. #lowcalorie	124	2. #healthy	18
3. #glutenfree	120	3. #cleaneating	12
4. #paleo	117	4. #lowcarb	11
5. #cleaneating	115	5. #healthylifestyle	10
Total	**841**	Total	**305**
2. Vegetarianism			
1. #vegan	101	1. #vegan	13
2. #veganfoodshare	70	2. #plantbased	8
3. #vegetarian	2	3. #plantpower,	4
4. #dehippevegetarier	1	4. #veganfood	4
5. #meatfreemonday	1	5. #vegetarian	4
Total	**185**		**56**
3. Origin, supply chain & Fairtrade			
1. -	-	1. #eatlocal	1
2. -	-	2. #supportlocal	1
Total	**0**	Total	**2**
4. Sustainability general & other			
1. #sustainable	2	1. #Consciousliving	2
2. #wholefoods	2	2. #sustainablefood	2
3. #duurzaam	1	3. #duurzaamleven	1

4. -	-	4. #gmofree	1
5. -	-	5. #groendoen	1
Total	**5**	Total	**11**
5. Diversity			
1. -	-	1. -	-
Total	**0**	Total	**0**
6. Environmental issues			
1. -	-	1. -	-
Total	**0**	Total	**0**
7. Social issues, charity & ethics			
1. -	-	1.-	-
Total	**0**	Total	**0**
8. Organic & natural			
1. #bio	80	1. #organic	10
2. #organic	33	2. #naturaltemptation	5
3. #nextorganic	1	3. #bio	3
4. -	-	4. #natural	3
5. -	-	5. #organics	2
Total	**114**	Total	**27**
9. Activism, change & saving			
1. #savemybacon	29	1.-	-
2. #savetheplanet	27	2.-	-
Total	**56**	Total	**0**
10. Self-sufficiency, handmade & home-grown			
1. -	-	1. #homecooking	3
2. -	-	2. #homechef	1
3. -	-	3. #homemade	1
Total	**0**	Total	**4**
Total all categories	**1201**	Total all categories	**406**

6.1.3 Kromkommer

In the category Diversity Kromkommer uses the sustainability hashtags #gekkegroente [#oddvegetables] (*n=127*), #kromishetnieuwerecht [#curvedisthenewstraight] (*n=65*), #perfectlyimperfect (*n=59*) and #uglyproduceisbeautiful (*n=59*) most often. In this category, also their consumers use #gekkegroente (*n=25*) most often, but #kromishetnieuwerecht (*n=4*) and #perfectlyimperfect (*n=2*) less often. Instead consumers use #buitenbeetjes [#misfits] (*n=13*) and #kleinisfijn [littleisnice] (*n=8*) more frequently. Thus, there are differences in FGC and UGC in this category.

The second popular sustainability category of Kromkommer, seen from the brand's perspective, is Environmental issues. The brand uses #nowaste (*n=131*), #voedselverspilling [#foodwaste] (*n=8*) and #foodwaste (*n=2*) most

often. Also the consumers use #nowaste (*n=16*) frequently and to a lesser extent #voedselverspilling [#foodwaste] (*n=2*) and #foodwaste (*n=5*). Sustainability hashtags that are used more by the consumers then the brand are #nofoodwaste (*n=8*) and #zerowaste (*n=7*). Thus, the same terms are used in FGC and UGC, but the popularity differs with the exception of #nowaste.

Lastly, I analysed the category Healthy eating, lifestyle & dieting. The brand uses the sustainability hashtags #glutenvrij [#glutenfree] (*n=23*), #lactosevrij [lactosefree] (*n=22*) and #zondertoegevoegdesuikers [withoutaddedsugars] (*n=21*) in this category most frequently. This differs strongly with their consumers, who do not use these sustainability hashtags, except #glutenvrij (*n=2*). Kromkommer's consumers' most popular sustainability hashtags to use in this category are #healthyfood (*n=18*), #healthy (*n=12*), #cleaneating (*n=7*) and #gezondeten [healthyeating] (*n=7*).

To conclude, often sustainability hashtags are used by both the brand and the consumers. However, the frequency of use differs greatly, especially within the category 'Healthy eating, lifestyle & dieting'.

Table 7: Kromkommer's most popular FGC and UGC sustainability hashtags

Kromkommer's most popular hashtags			
FGC	N	UGC	N
1. Healthy eating, lifestyle & dieting			
1. #glutenvrij	23	1. #healthyfood	18
2. #lactosevrij	22	2. #healthy	12
3. #zondertoegevoegdesuiker	21	3. #cleaneating	7
4. #zonderkunstmatigetoevoeging	3	4. #gezondeten	7
5. #healthy	1	5. #healthylifestyle	6
Total	**72**	Total	**140**
2. Vegetarianism			
1. #vegan	22	1. #vegan	17
2. #vega	1	2. #veganfood	6
3. -	-	3. #veggie	5
4. -	-	4. #veganfoodshare	4
5. -	-	5. #vegetarian	4
Total	**23**		**85**
3. Origin, supply chain & Fairtrade			
1. #uitjeeigenstad	3	1. #eerlijketen	4
2. #fairtrade	2	2. #fairtradestore	4
3. #lokaal	2	3. #localmarket	3
4. -	-	4. #eatlocal	2
5. -	-	5. #eerlijkehandel	2
Total	**7**	Total	**27**
4. Sustainability general & other			
1. #beterevoedselketen	1	1. #duurzaam	6
2. #circulareconomy	1	2. #duurzaamheid	3

3. #duurzaam	1	3. #ecolifestyle	2
4. #markbescherming	1	4. #groenmoetjedoen	2
5. #overschot	1	5. #overproductie	2
Total	**6**	Total	**26**
5. Diversity			
1. #gekkegroente	127	1. #gekkegroente	25
2. #kromishetnieuwerecht	65	2. #buitenbeentjes	13
3. #perfectlyimperfect	59	3. #kleinisfijn	8
4. #uglyproduceisbeautiful	59	4. #gekkegroenteliefde	6
5. #uglyfruitandveg	24	5. #gekkegroenten	4
Total	**453**	Total	**91**
6. Environmental issues			
1. #nowaste	131	1. #nowaste	18
2. #voedselverspilling	8	2. #nofoodwaste	8
3. #foodwaste	2	3. #zerowaste	7
4. #biovergister	1	4. #foodwaste	5
5. #plasticwhale	1	5. #voedselverspilling	2
Total	**149**	Total	**55**
7. Social issues, charity & ethics			
1. #socialenterprise	9	1. #dogood	1
2. #sociaalondernemen	3	2. #ethiek	1
3. -	-	3. #goedbezig	1
4. -	-	4. #goeddoen	1
5. -	-	5. #goedinitiatief	1
Total	**12**	Total	**7**
8. Organic & natural			
1. #bioromeo	1	1. #biologisch	15
2. #natuurlijk	1	2. #organic	10
3. -	-	3. #biologischdynamisch	3
4. -	-	4. #bio	2
5. -	-	5. #biologischeboer	2
Total	**2**	Total	**50**
9. Activism, change & saving			
1. #redmee	7	1. #redmee	2
2. #redmij	3	2. #redmij	2
3. #crowdforce	1	3. #stopfoodwaste	2
4. #nietkokentochredden	1	4. #tastebeforeyouwaste	2
5. #stopfoodwaste	1	5. #tegenvoedselverspilling	2
Total	**15**	Total	**22**
10. Self-sufficiency, handmade & home-grown			
1. #balkongroente	1	1. #moestuin	28
2. #moestuin	1	2. #homegrown	6
3. #stadslandbouw	1	3. #stadstuinieren	4
4. -	-	4. #urbangarden	4
5. -	-	5. #homemade	3

Total	3	Total	60
Total all categories	742	Total all categories	563

6.1.4 Tony's Chocolonely

Most of Tony's Chocolonely's FGC is produced in the sustainability category Origin, supply chain & Fairtrade. Popular sustainability hashtags used in this category by the brand, are #beantobar (*n=10*), #ivoorkust [#ivorycoast] (*n=6*) and #slaafvrijrecept [#slavefreerecipe] (*n=5*). By the consumers these sustainability hashtags are used infrequently in comparison to the hashtags created by them, namely #beantobar (*n=5*), #ivoorkust (*n=1*) and #slaafvrijrecept (*n=13*). Sustainability hashtags that are used frequently by the consumers in this category are #fairtrade (*n=353*), #slavefree (*n=89*) and #slaafvrij [#slavefree] *(n=63)*. This shows that Tony's Chocolonely and its consumers use different sustainability hashtags to communicate about the Origin, supply chain & Fairtrade aspects of the chocolate.

In the category Social issues, charity & ethics, the sustainability hashtag #knettergoed [#reallygood] (*n=8*) is used most commonly by the brand. The three other sustainability hashtags used in this category have only be found once. #knettergoed is also for the consumers the most popular sustainability hashtag to use in this category (*n=11*), next to #equality (*n=3*). Thus, in this category with limited content, the sustainability hashtags used are relatively similar.

Lastly, in the category Diversity, Tony's Chocolonely uses most often the sustainability hashtag #europride2016 (*n=2*) and the following sustainability hashtags once: #amsterdampride, #europride, #gaybar, #gaypride and #lovewins. Consumers use #europride2016 (*n=5*), #europride (*n=6*), #gaybar (*n=9*) and #gaypride (*n=7*). But the most common UGC sustainability hashtag in this category is #gay (*n=10*). The large portion sustainability hashtags related to LGTB could be generated due to the launch of a 'gay chocolate bar' of Tony's Chocolonely. This bar has a rainbow flag coloured packaging and was released around the time of the yearly Pride parade in Amsterdam.

To conclude, in the category Origin, supply & Fairtrade, there is a reasonable difference between the FGC and UGC, but in the other categories this difference is bigger.

Table 8: Tony's Chocolonely's most popular FGC and UGC sustainability hashtags

Tony Chocolonely's most popular hashtags			
FGC	N	UGC	N
1. Healthy eating, lifestyle & dieting			
1. -	-	1. #fitdutchies	118
2. -	-	2. #healthy	109

3. -	-	3. #fitgirl	105
4. -	-	4. #fitdutchie	89
5. -	-	5. #fitfam	88
Total	**0**	Total	**2812**
2. Vegetarianism			
1. -	-	1. #vegan	83
2. -	-	2. #plantbased	28
3. -	-	3. #veganfoodshare	25
4. -	-	4. #veganfood	23
5. -	-	5. #veganchocolate	21
Total	**0**		**523**
3. Origin, supply chain & Fairtrade			
1. #beantobar	10	1. #fairtrade	353
2. #ivoorkust	6	2. #slavefree	89
3. #slaafvrijrecept	5	3. #slaafvrij	63
4. #wettegenkinderarbeid	4	4. #slavefreechocolate	56
5. #ghana	3	5. #fairtradechocolate	28
Total	**42**	Total	**813**
4. Sustainability general & other			
1. -	-	1. #wereldwinkel	17
2. -	-	2. #crazyaboutchocolateseri.	10
3. -	-	3. #sustainable	8
4. -	-	4. #duurzaam	5
5. -	-	5. #sustainability	5
Total	**0**	Total	**83**
5. Diversity			
1. #europride2016	2	1. #gay	10
2. #amsterdampride	1	2. #gaybar	9
3. #europride	1	3. #gayguy	7
4. #gaybar	1	4. #gaypride	7
5. #garpride	1	5. #europride	6
Total	**7**	Total	**109**
6. Environmental issues			
1. -	-	1. #recycle	2
2. -	-	2. #co2neutral	1
3. -	-	3. #eenbetermilieubegintbij..	1
4. -	-	4. #environment	1
5. -	-	5. #recyclable	1
Total	**0**	Total	**11**
7. Social issues, charity & ethics			
1. #knettergoed	8	1. #knettergoed	11
2. #chocolonelyfoundation	1	2. #equality	3
3. #ongelijkverdeeld	1	3. #ethicallyproduced	2
4. #worlddayagainsthuman…	1	4. #peace	2
5. -	-	5. #unequallydivided	2
Total	**11**	Total	**52**

8. Organic & natural			
1. -	-	1. #organic	14
2. -	-	2. #natural	3
3. -	-	3. #bio	2
4. -	-	4. #biologisch	2
5. -	-	5. #nature	2
Total	**0**	Total	**32**
9. Activism, change & saving			
1. #samengaathetsneller	2	1. #samengaathetsneller	3
2. #samenmakenwechocolade…	2	2. #activism	2
3. #petitie	1	3. #awareness	2
4. #raisethebar	1	4. #bethechange	2
5. -	-	5. #impact	2
Total	**6**	Total	**31**
10. Self-sufficiency, handmade & home-grown			
1. -	-	1. #homemade	22
2. -	-	2. #handmade	5
3. -	-	3. #selfmade	4
4. -	-	4. #handcrafted	2
5. -	-	5. #homemadecooking	2
Total	**0**	Total	**40**
Total all categories	**66**	Total all categories	**4506**

6.1.5 Professor Grunschnabel

In the category Vegetarianism, Professor Grunschnabel's most often uses the sustainability hashtags #veganicecream (*n=24*), #vegan (*n=23*), #plantbased (*n=20*) and #veganice (*n=20*). The consumers also use these hashtags used by Professor Grunschnabel frequently, such as #veganicecream (*n=74*), #vegan (*n=159*), #plantbased (*n=44*) and #veganice (*n=4*). Other popular sustainability hashtags used by consumers in this category, are #veganicecream (*n=74*), #veganfood (*n=48*) and #whatveganseat (*n=36*). Thus, the most used sustainability hashtags used by Professor Grunschnabel are also used by their consumers.

In the other relevant category, Healthy eating, lifestyle & dieting, the brand uses the sustainability hashtags #glutenfree (*n=22*), #lactosefree (*n=21*) and #glutenvrij [#glutenfree] (*n=22*) the most frequent. The consumers use #glutenfree (*n=28*), #lactosefree (*n=27*) and #glutenvrij (*n=14*) as well relatively often. Next to #glutenfree and #lactosefree, the most popular sustainability hashtag used by the consumers is #healthy (*n=24*). Thus, the sustainability hashtags used by the brand are very similar to the ones used by the consumers.

Although Professor Grunschnabel produces mainly content in just two categories, they use sustainability hashtags which their consumers also use on Instagram.

Table 9: Professor Grunschnabel's most popular FGC and UGC sustainability hashtags

Professor Grunschnabel's most popular hashtags			
FGC	N	UGC	N
1. Healthy eating, lifestyle & dieting			
1. #glutenfree	22	1. #glutenfree	28
2. #lactosefree	21	2. #lactosefree	27
3. #glutenvrij	15	3. #healthy	24
4. #lactosevrij	13	4. #glutenvrij	14
5. #sojafree	10	5. #healthyfood	14
Total	**94**	Total	**390**
2. Vegetarianism			
1. #veganicecream	24	1. #vegan	159
2. #vegan	23	2. #veganicecream	74
3. #plantbased	20	3. #veganfood	48
4. #veganice	20	4. #plantbased	44
5. #veganfood	9	5. #whatveganseat	36
Total	**107**		**690**
3. Origin, supply chain & Fairtrade			
1. -	-	1. -	-
Total	**0**	Total	**0**
4. Sustainability general & other			
1. -	-	1. #onagreenjourney	1
Total	**0**	Total	**1**
5. Diversity			
1. -	-	1. -	-
Total	**0**	Total	**0**
6. Environmental issues			
1. -	-	1. -	-
Total	**0**	Total	**0**
7. Social issues, charity & ethics			
1. -	-	1. -	-
Total	**0**	Total	**0**
8. Organic & natural			
1. #natuurlijk	11	1. #organic	4
2. #natural	10	2. #natural	3
3. #naturalproducts	3	3. #bio	1
4. -	-	4. #biologisch	1
5. -	-	5. #naturalhealing	1
Total	**24**	Total	**12**
9. Activism, change & saving			
1. -	-	1. #savetheplanet	1
Total	**0**	Total	**1**

10. Self-sufficiency, handmade & home-grown			
1. -	-	1. #homemade	4
Total	**0**	Total	**4**
Total all categories	**225**	Total all categories	**1098**

6.2 Sustainability communication per category

In the previous paragraph, the results gave a detailed view of the sustainability hashtags used by the brands and their consumers. This paragraph takes a slightly higher view and shows the results on the level of sustainability category. *Figure 17* shows the results. After that, first examples of FGC per brand are described and then examples of UGC per brand.

6.2.1 Sustainability communication per category - brands

Figure 17 shows that for some brands such as Seamore and Professor Grunschnabel, Healthy eating, lifestyle and dieting is a popular category to create hashtags about. Other brands, such as Peeze and Tony's Chocolonely don not create any hashtag in this category, but communicate more about the origin of their product and Social issues, charity & ethics. *Figure 17* also makes it visible that some brands have a strong focus on which sustainability topics they address on Instagram, such as Professor Grunschnabel. Other brands communicate on a wider variety of sustainability topics such as Kromkommer and Peeze.
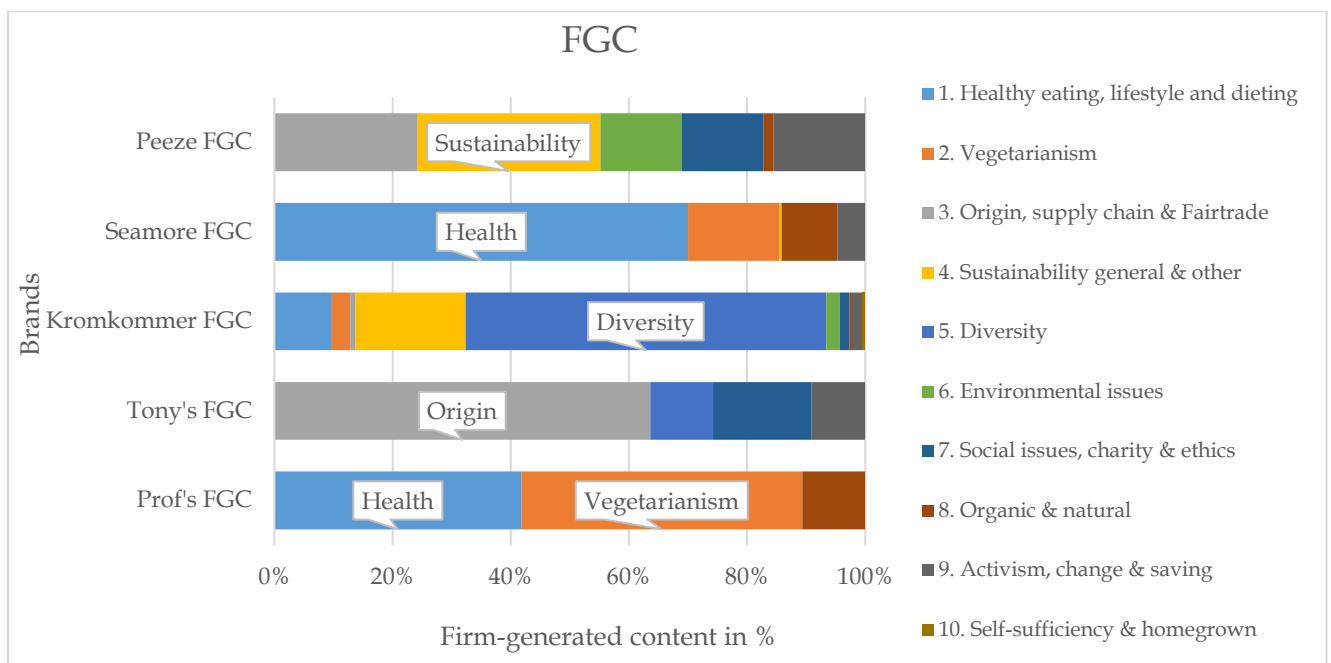

Figure 17: Amount of firm-generated content per brand and sustainability category

62

Peeze emphasizes environmental benefits of their products

In *Figure 18* an Instagram post can be seen of Peeze. The text in the picture says: '10 billion cups. Who cleans them up?' Also in the text underneath the post and in the sustainability hashtags, Peeze addresses the environmental effects of coffee cups and proposes their bio based alternatives.

10 MILJARD CUPS

WIE RUIMT DIE OP?

27 vind-ik-leuks   14 w.

peeze_koffie "Als ik had geweten welke impact koffiecups op ons milieu zouden hebben, had ik ze nooit uitgevonden", aldus John Sylvan. Elk jaar gooien we wereldwijd 10 miljard koffiecups weg en dit worden er steeds meer. De oplossing? Volledig composteerbare koffiecups! #biobased #duurzaamheid #klimaateffecten #co2 #koffiecups #peeze

♡   Een reactie toevoegen...   ○○○

Figure 18: An Instagram post of Peeze saying '10 billion cups. Who cleans them up?'

Seamore communicates with variation

In *Figure 19* a post of Seamore can be seen, in which it uses hashtags which can be used in multiple sustainability categories. #savetheplanet for example relates to the category Activism, saving and changing and #glutenfree and #lowcalorie to the category Healthy eating, lifestyle and dieting. Two remarkable sustainability hashtags are #vegan and #veganfoodshare, because in the post description Seamore describes the breakfast contains eggs and it looks in the picture that they used eggs. One reason for this can be that Seamore uses an almost 'standard' set of hashtags which they use for every post.
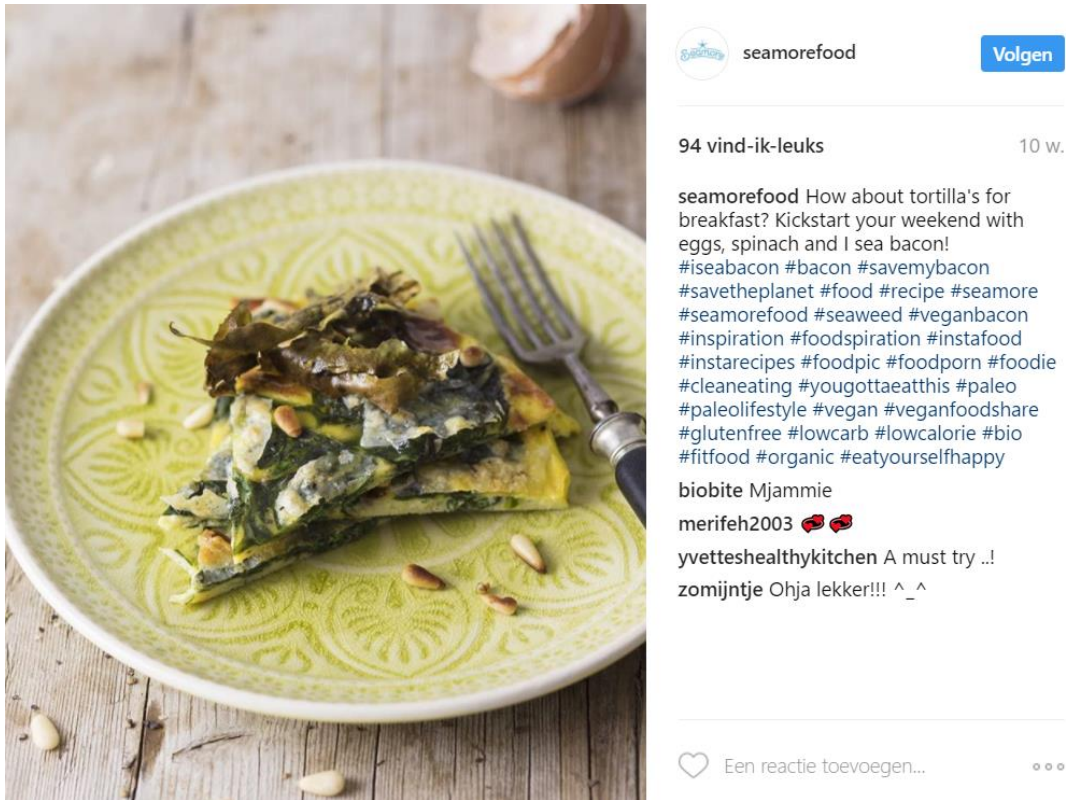
Figure 19: An Instagram post of Seamore post with many hashtags

Kromkommer stimulates posts about malformed vegetables

Figure 20 shows an example of a post of Kromkommer. It is a re-posted picture made by a member or their 'Krommunity' and they use sustainability hashtags in the categories Diversity (#gekkegroente [EN: weird vegetables]) and Environmental issues (#nowaste).

Figure 20:1 Kromkommer shares a picture with its 'Krommunity' about a malformed carrot

Tony Chocolonely communicates about the cacao origin

This is a post (see *figure 21*) of Tony's Chocolonely in which can be seen that the brand communicates about the origin of its product, both in the text and picture. In English the post reads: 'Today it is International Day of Happiness. We want that everyone in the supply chain becomes happy of chocolate. Not only today, but every day. From the cacao farmers, till their children, till all the chocolate fans that eat our chocolate bars. Because of this reason we work together with the partner co-operations with our recipe of slave free cacao with five ingredients, see link in bio.' The sustainability hashtag that is captured in the data collection is #beantobar.

Figure 21: Instagram post of Tony's Chocolonely on the International Day of Happiness

Professor Grunschnabel creates hashtags in three categories

In *figure 22* an Instagram post of Professor Grunschnabel can be seen. The brand talks about the supermarkets in which they will have free ice cream testing. Underneath the addresses of the supermarkets, the hashtags can be found. Sustainability hashtags from three sustainability categories can be found, namely Vegetarianism (e.g. #vegan), Healthy eating, lifestyle & dieting (e.g. #healthy & #lactosefree) and Organic & natural (e.g. #natural).

Figure 12: Professor Grunschnabel's post about locations where ice cream can be tasted

6.2.2 Sustainability communication per category - consumers

Although consumers communicate about different sustainability topics, the category Healthy eating, lifestyle and dieting is represented from 24,7% (Kromkommer) until 75,1% (Seamore). With the exception of coffee brand Peeze, in the UGC of all the brands, consumers communicate about vegetarianism. For some brands consumers created a large variety of sustainability hashtags, such as with Kromkommer and Peeze. Consumers communicate with other brands in a more focused way, such as with Professor Grunschnabel and Seamore.
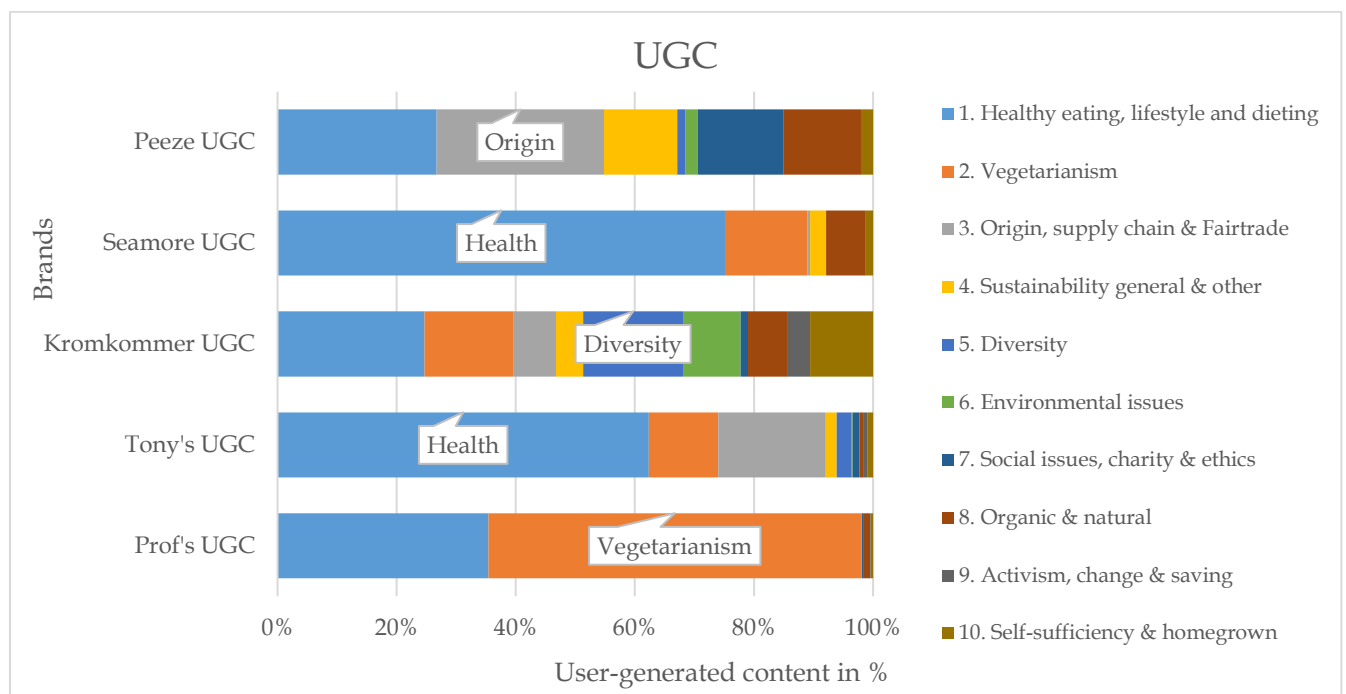
Figure 23: Amount of user-generated content per brand and sustainability category

Posts about origin from bars and restaurants for Peeze

Consumers of Peeze most often enjoy their coffee not because they buy it from the supermarket, but because it is served in an office, restaurant or beauty salon which they visit. *In figure 24* an example of this can be seen. Beauty salon ASPA Den Haag shares with its followers that they now have sustainable coffee and they emphasize this by using sustainability hashtags which fall in the following categories: Environmental issues (#carbonneutral), Origin, supply & Fairtrade (#fairtraide #maxhavelaar) and Organic & natural (#bio #organic).

Figure 24: ASPA Den Haag shares that they will serve Peeze's sustainable coffee

Many health related hashtags for Seamore

As can be seen in *figure 25*, most of the sustainability hashtags created by consumers in the posts of Seamore are related to health (75,1%). The example post underneath (*figure 25*) shows this in practice. Examples of hashtags that fall in the category Healthy eating, lifestyle & dieting, are #eatclean #diet #health and #bodybuilding.

Figure 25: An Instagram post with many health related hashtags

A wide variety of sustainability hashtags for Kromkommer

The consumers of Kromkommer create sustainability hashtags in a wide variety of sustainability categories and I will illustrate this with the help of two examples. *Figure 26* shows a picture of Kromkommer's soup and the creator uses many sustainability hashtags such as #nowaste, #gekkegroente [EN: #weird vegetables] and #plantbased. *Figure 27* shows a typical post with the hashtag #kromkommer. Consumers share pictures of their funny looking vegetables on Instagram and often receive a comment from the brand. In this post the consumer creates sustainability hashtags in the category Diversity (#buitenbeetje [#outsider]) and Environmental issues (#zerowasteliving).

Figure 26: A post describing one of Kromkommer's soups

Figure 27: A consumer shares an ugly carrot with Kromkommer

Tony's Chocolonely receives many health related hashtags

More than half (62,3%) of the sustainability hashtags produced by Tony's Chocolonely can be categorized in the category Healthy eating, lifestyle & dieting. Examples of these hashtags are #fitmom, #fitgirl, #balance and #healthystuff, which can be seen in *figure 28* and *29*. From the Instagram posts

can be noticed that the chocolate is consumed as a cheat meal or reward after a period of dieting or strict eating and sports, such as can be seen in *figure 28*. This phenomenon will be explained in the discussion chapter of this thesis
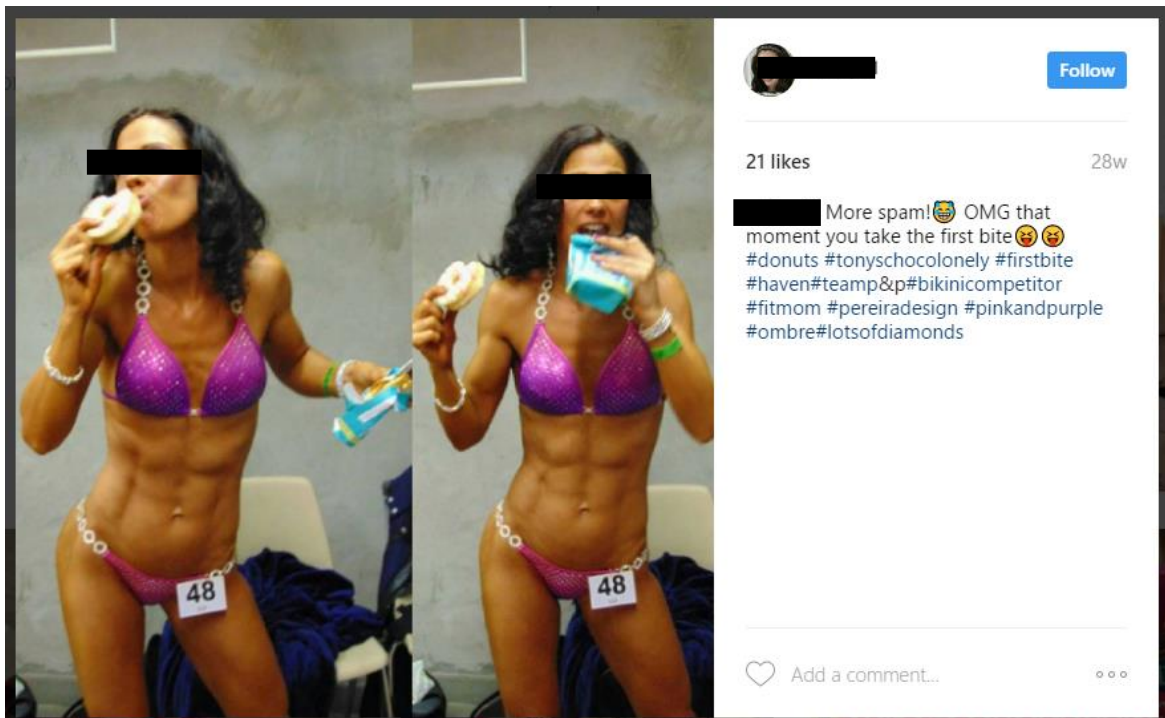

Figure 28: A fitness model poses with Tony's Chocolonely's chocolate bar

Figure 29: A 'fitgirl' shows healthy food together with Tony's Chocolonely chocolate

Many vegan hashtags for Professor Grunschnabel

The vegetarian and vegan aspects of Professor Grunschnabel's ice are sustainability topics about which consumers communicate frequently (62,6% of the sustainability hashtags). In the example post (see *figure 30*) this is also the case. The sustainability hashtags #vegan #veganfood #veganicecream #dairyfree can be placed in the category Vegetarianism.

Figure 30: Consumer generated post about Professor Grunschnabel's ice cream

6.3   Differences between brands and their consumers

In this part of the results, I display per brand what the differences are between the sustainability topics addressed by brands and by consumers. Looking at all the brands and their consumers, a trend can be noticed of consumers communicating more in the category Healthy eating, lifestyle and dieting and with a bigger variety of sustainability categories than brands do. On average sustainability hashtags in the category Healthy eating, lifestyle & dieting produced by consumers are 44,84 % of all the sustainability hashtags created, while brands create on average 24,3% of the sustainability hashtags in the category Healthy eating, lifestyle & dieting. The differences between brands

however, are much bigger (lowest 0%, highest 70%), than the consumers (lowest 24,7%, highest 75,1%).

6.3.1 Peeze and its consumers have attention for the origin of coffee

Table 10 shows the results of Peeze. From the table can be seen that consumers create the most sustainability hashtags about Origin, supply chain & Fairtrade (28,1%) and Healthy eating, lifestyle & dieting (26,7%). Peeze also creates a large percentage of its sustainability hashtags about Origin, supply chain & Fairtrade (24,1%), but also creates many sustainability hashtags about sustainability in general and other sustainability related terms (31,0%).

Table 10: Peeze's UGC and FGC

Category	UGC in %	FGC in %
1. Healthy eating, lifestyle & dieting	26,7	0,0
2. Vegetarianism	0,0	0,0
3. Origin, supply chain & Fairtrade	28,1	24,1
4. Sustainability general & other	12,3	31,0
5. Diversity	1,4	0,0
6. Environmental issues	2,1	13,8
7. Social issues, charity & ethics	14,4	13,8
8. Organic & natural	13,0	1,7
9. Activism, change & saving	0,0	15,5
10. Self-sufficiency & homegrown	2,1	0,0

6.3.2 Seamore and its consumers are both health aware

Table 11 shows the results of Seamore. Both consumers and the brand create a large amount of sustainability hashtags related to Healthy eating, lifestyle & dieting, namely 75,1% by consumers and 70,0% by the firm which results in a small difference of only 5,1%. Next to Healthy eating, lifestyle & dieting, both consumers and the brand create a substantial amount of sustainability hashtags about Vegetarianism and Organic & natural.

Table 11: Seamore's UGC and FGC

Category	UGC in %	FGC in %
1. Healthy eating, lifestyle & dieting	75,1	70,0
2. Vegetarianism	13,8	15,4
3. Origin, supply chain & Fairtrade	0,5	0,0
4. Sustainability general & other	2,7	0,4

5. Diversity	0,0	0,0
6. Environmental issues	0,0	0,0
7. Social issues, charity & ethics	0,0	0,0
8. Organic & natural	6,7	9,5
9. Activism, change & saving	0,0	4,7
10. Self-sufficiency & homegrown	1,2	0,0

6.3.3 Consumers and Kromkommer show diversity in hashtags

Table 12 shows the results of Kromkommer. Consumers create sustainability hashtags about a variety of categories. However, the most popular categories are Healthy eating, lifestyle & dieting (24,7%), Diversity (16,8%) and Vegetarianism (15,0%). The brand itself communicates with less variety in their sustainability hashtags. Their main focus lies on Diversity (61,1%) and then in lesser extent on sustainability in general and other terms (18,6%) and Healthy eating, lifestyle & dieting (9,7%).

Table 12: Kromkommer's UGC and FGC

Category	UGC in %	FGC in %
1. Healthy eating, lifestyle & dieting	24,9	9,7
2. Vegetarianism	15,1	3,1
3. Origin, supply chain & Fairtrade	4,8	0,9
4. Sustainability general & other	4,6	0,8
5. Diversity	16,2	61,1
6. Environmental issues	9,8	20,1
7. Social issues, charity & ethics	1,2	1,6
8. Organic & natural	8,9	0,3
9. Activism, change & saving	3,9	2,0
10. Self-sufficiency & homegrown	10,7	0,4

6.3.4 Differences between Tony Chocolonely and its consumers

Table 13 shows the results of Tony's Chocolonely. Consumers create a vast amount of sustainability hashtags which can be categorized in the category Healthy eating, lifestyle & dieting (62,3%) while the brand itself does not create any hashtag in this category (0%). Most of the brand's sustainability hashtags relate to Origin, supply chain & Fairtrade (63,6%) and also consumers create sustainability hashtags in this category (18,0%). Further, consumers generate sustainability hashtags about Vegetarianism (11,7%), probably caused by the vegan chocolate options Tony's Chocolonely has on the market. However, the brand does not create sustainability hashtags in this category, but creates

sustainability hashtags in the categories Social issues, charity & ethics (16,7%) and Diversity (10,6%).

Table 13: Tony's Chocolonely's UGC and FGC

Category	UGC in %	FGC in %
1. Healthy eating, lifestyle & dieting	62,3	0,0
2. Vegetarianism	11,7	0,0
3. Origin, supply chain & Fairtrade	18,0	63,6
4. Sustainability general & other	1,8	0,0
5. Diversity	2,4	10,6
6. Environmental issues	0,2	0,0
7. Social issues, charity & ethics	1,2	16,7
8. Organic & natural	0,7	0,0
9. Activism, change & saving	0,7	9,1
10. Self-sufficiency & homegrown	0,9	0,0

6.3.5 Veganism and health for Prof. Grunschnabel and consumers

Table 14 shows the results of Professor Grunschnabel. Vegetarianism is a popular category to create sustainability hashtags about for consumers (62,6%) and also Healthy eating, lifestyle & dieting (35,4%). The brand itself creates sustainability hashtags about Vegetarianism (47,6%) and Healthy eating, lifestyle & dieting (41,8%), but also about Organic & natural (10,7%). The differences are not as big as with other brands, but from the results can be noticed that consumers create more sustainability hashtags about Vegetarianism (+15,1%).

Table 14: Professor Grunschnabel's UGC and FGC

Category	UGC in %	FGC in %
1. Healthy eating, lifestyle & dieting	35,4	41,8
2. Vegetarianism	62,6	47,6
3. Origin, supply chain & Fairtrade	0,0	0,0
4. Sustainability general & other	0,1	0,0
5. Diversity	0,0	0,0
6. Environmental issues	0,0	0,0
7. Social issues, charity & ethics	0,4	0,0
8. Organic & natural	1,1	10,7
9. Activism, change & saving	0,1	0,0
10. Self-sufficiency & homegrown	0,4	0,0

6.4   The most popular sustainability hashtag categories

In the previous chapter I discussed the popularity of sustainability categories per brand. Now I will combine the results of the brands and their consumers together. Although the differences between the brands are large, the results show that more sustainability hashtags are produced in some categories than other categories. *Table 15* displays that the most sustainability hashtags created by brands on average are in the following categories: (1) Healthy eating, lifestyle & dieting (24,3%), (2) Origin, supply chain & Fairtrade (17,7%), (3) Diversity (14,3%), (4) Vegetarianism (13,2%) and (5) Sustainability general & other (10,0%). The most popular sustainability categories to create content about by the consumers of the brands are: (1) Healthy eating, lifestyle & dieting (44,9%), (2) Vegetarianism (20,6%), (3) Origin, supply chain & Fairtrade (10,3%), (4) Organic & natural (6,1%) and (5) Sustainability general & other (4,3%). The results of the individual brands are more important than the averages per sustainability category, because the large differences between brands can give a distorted image.

Table 15: Ranking of the most popular sustainability categories

Firm-generated content	User-generated content
1. Healthy eating, lifestyle & dieting	1. Healthy eating, lifestyle & dieting
2. Origin, supply chain & Fairtrade	2. Vegetarianism
3. Diversity	3. Origin, supply chain & Fairtrade
4. Vegetarianism	4. Organic & natural
5. Sustainability general & other	5. Sustainability general & other

Table 16 shows a total overview of the sustainability categories addressed by the brands. From the results can be noticed that the least frequently addressed sustainability category is 'Self-sufficiency & home-grown'.

Table 16: Firm-generated content on average

Firm-generated content						
Brand	Peeze	Seamore	Krom.	Tony's	Prof.	**Average**
1. Healthy eating, lifestyle & dieting	0,0	70,0	9,7	0,0	41,8	24,3
2. Vegetarianism	0,0	15,4	3,1	0,0	47,6	13,2
3. Origin, supply chain & Fairtrade	24,1	0,0	0,9	63,6	0,0	17,7
4. Sustainability general & other	31,0	0,4	18,6	0,0	0,0	10,0
5. Diversity	0,0	0,0	61,1	10,6	0,0	14,3
6. Environmental issues	13,8	0,0	2,3	0,0	0,0	3,2
7. Social issues, charity & ethics	13,8	0,0	1,6	16,7	0,0	6,4
8. Organic & natural	1,7	9,5	0,3	0,0	10,7	4,4
9. Activism, change & saving	15,5	4,7	2,0	9,1	0,0	6,3
10. Self-sufficiency & home-grown	0,0	0,0	0,4	0,0	0,0	0,1

Table 17 shows a total overview of the sustainability categories addressed by the consumers of the selected case brands. From the results can be noticed that the least frequently addressed sustainability category is Activism, change & saving.

Table 17: User-generated content on average

User-generated content						
Brand	Peeze	Seamore	Krom.	Tony's	Prof.	**Average**
1. Healthy eating, lifestyle & dieting	26,7	75,1	24,7	62,3	35,4	44,9
2. Vegetarianism	0,0	13,8	15,0	11,7	62,6	20,6
3. Origin, supply chain & Fairtrade	28,1	0,5	4,8	18,0	0,0	10,3
4. Sustainability general & other	12,3	2,7	4,6	1,8	0,1	4,3
5. Diversity	1,4	0,0	16,8	2,4	0,0	4,1
6. Environmental issues	2,1	0,0	9,7	0,2	0,0	2,4
7. Social issues, charity & ethics	14,4	0,0	1,2	1,2	0,4	3,4
8. Organic & natural	13,0	6,7	8,8	0,7	1,1	6,1
9. Activism, change & saving	0,0	0,0	3,9	0,7	0,1	0,9
10. Self-sufficiency & homegrown	2,1	1,2	10,6	0,9	0,4	3,0

7 DISCUSSION

In the discussion, I make the connection between the results of this study and previously conducted studies, in order to make an understanding of the meaning of the results. I will do this by summarizing the most interesting expected results, and then explaining these with literature. Next, I will do the same for the unexpected results. Further, I will state the limitations of this research and recommendations for future research. After this, I will explain what the practical implications of the study are.

7.1 Expected results

First, I want to go back to the foundation of this study, namely the research question: How is a sustainable brand image co-created on social media? The three sub questions that supported finding the answer to the research question were: (a) Which sustainability categories do brands and consumers address in their Instagram posts?, (b) To what extent does the sustainability image communicated by the consumers corresponds to the sustainability image communicated by the brand itself? And (c) Do brands and consumers take over sustainability hashtags from each other?

Sustainability categories
For brands, the sustainability categories Healthy eating, lifestyle & dieting (24,3%), Origin, supply chain & Fairtrade (13,2%) and Diversity (14,3%) were the most common sustainability categories to create sustainability hashtags about. For consumers the sustainability categories Healthy eating, lifestyle & dieting (44,9%), Vegetarianism (20,6%) and Origin, supply chain & Fairtrade (10,3%) were most common to communicate about. The least popular categories to communicate about for brands were Self-suffiency & homegrown (0,1%), Environmental issues (3,2%) and Organic and natural (4,4%). For consumers, the least popular categories to create sustainability hashtags about were Activism, change & saving (0,9%), Environmental issues (2,4%) and Self-suffiency & homegrown (3,0%).

The great amount of hashtags created in the category Healthy eating, dieting and lifestyle, concurs with other studies conducted on this topic. Petrescu et al. (2017) for example, showed with their research on Romanian organic food consumers, that frequently mentioned motivations to consume organic food are health concerns (mentioned by 93,8%) and taste (mentioned by 47,1%) and only for a small part environmental concerns (mentioned by 1%) and social concerns (mentioned by 2,1%). Janssen et al. (2016) concluded from their research on vegan

consumers that there are three main motives for adopting a vegan diet, namely: Animal related motives (mentioned by 89,7%), personal well-being/health motives (mentioned by 69,3%) and environmental-related motives (mentioned by 46,8%). Hoek et al. (2017) state in their article, that health is the dominant driver in purchasing food that is both healthy and environmentally friendly and use four references to support their argument. From their own results they can conclude that compared to health, the relationship between food and the environment is not much considered by consumers. But they argue that consumers are appealed to the idea of a joined concept of foods that are both healthy and environmentally friendly. The results of this study are also broadly consistent with the development of sustainability as a concept from a consumer perspective. As explained in the theoretical framework, sustainability evolved in the last fifty years from an altruistic thinking to a more self-centred approach in the sense that consumers are interested in how sustainable products can enhance their lifestyle and their status. The (perceived) health aspects of sustainable food products are noticed by consumers and communicated on Instagram. Just like consumers, also the sustainable brands, except Peeze and Tony's Chocolonely, communicated frequently about the health aspects of their products. Information related to health is more and more used on food products to convey the benefits of the products. The health image of the product plays a bigger role than the actual wording of the health claim on the product (Lähteenmäki, 2013).

I continue with explaining the popularity of the category Origin, supply & Fairtrade with literature. The popularity could be caused by the development of globalization and the feeling of having a global identity. The research of Reese and Kohlmann (2015) showed that when people associate themselves with all humans, they are more willing to choose a Fairtrade chocolate bar – even when this would give them less personal benefit. According to the research of Anselmsson et al. (2014) it is understandable that brands communicate the origin of their products. Consumers are namely willing to pay a price premium for a home country origin, next to other aspects such as social image, uniqueness and corporate social responsibility.

Further, in the Instagram posts created by consumers, a vast amount of the sustainability hashtags were related to Vegetarianism. Even products which are often animal product free, such as dark chocolate, were still posted with many hashtags related to vegetarianism and veganism. A possible explanation for this could be that the users post food with vegetarian hashtags to (1) keep a record of activities relevant to their (vegetarian) goals and (2) seek for social community support for their (vegetarian) diet or (3) to motivate and educate other about vegetarianism (Chung et al., 2017).

The last category about which the brands created many sustainability hashtags was Diversity. In the academic literature I could not find studies that focus on brands' communication of diversity in food. However, promoting diversity as a brand is not a new concept. A clear example is the successful campaign for Real Beauty of the beauty brand Dove (Millard, 2009).

Sustainability image
In order to make a statement about the differences in sustainability images, I analysed how many of the sustainability hashtags were created in the different sustainability categories by the brands and their consumers. The results show that the sustainability image communicated by the brand was for some brands very different than the sustainability images communicated by their consumers and for other brands relatively small. On average, the difference was the biggest in the results from Tony Chocolonely (15,53%) and the smallest in the results from Seamore (1,82%). The other brands had an average in between that, namely Peeze (9,25%), Kromkommer (11,3%) and Professor Grunschnabel (3,2%).

A gap between the brand identity and brand image of champagne brands on Instagram, is also noticed in the research of Rokka and Canniford (2016) before. They studied how champagne brands portrayed themselves on Instagram and how their consumers portrayed the brands. The champagne brands portrayed themselves with posts that expressed heritage, class and magic. The consumers portrayed themselves together with the champagne brand on pictures that expressed consumer micro celebrity and showed attention-grabbing and sexualized images. As explained in the theoretical framework, the decoding of the messages communicated by the brand can lead to a brand image communicated by the consumer that does not match with these brand messages (Roy & Banerjee, 2014).

Sustainability hashtags
The brands and their consumers used certain hashtags to describe sustainability issues in the different sustainability categories. In order to see if the brands have an influence with the sustainability brand image they communicate, I analysed if consumers take over specific brand related sustainability hashtags. For Peeze, the specific hashtag #communitea is taken over relatively often by their consumers and this also counts for #biobased. For Kromkommer the hashtag #gekkegroente [wonky vegetable] is taken over by consumers and to a lesser extent the hashtag #redmee [jointly save]. For Tony's Chocolonely there are two brand related sustainability hashtags significantly taken over by consumers, namely #slavefree and #knettergoed [#reallygood]. Professor Grunschnabel and Seamore did not have sustainability hashtags that were clearly related to the

brand. Thus, a few brand specific sustainability hashtags are taken over by consumers, but in compared to the vast amount of sustainability hashtags created, this is relatively limited. From the brand side, the results give the impression that the brands do not actively take over sustainability hashtags used by their consumers. I this get impression because brands communicate about the same sustainability category, but use different sustainability hashtags to express the sustainability topic. It is almost surprising to see how totally different sustainability hashtags are used to address the same sustainability category. In some categories the hashtags are more aligned such as in Vegetarianism, but in broader categories such as Healthy eating, lifestyle & dieting the sustainability hashtags used by the brand vary widely from the sustainability hashtags used by their consumers.

A possible explanation could be that the consumer-generated brand stories and related hashtags are more impactful than the stories spread by the brand via traditional channels (Hennig-Thureau et al., 2010). Like described in the theoretical framework, a cause of this can be that content created by other users is perceived as more trustworthy than content created by the brand itself. This results in a situation that the user-generated social media communication (e.g. hashtags) have a bigger impact on the perception of a brand, than social media communication generated by the brand itself (Pornpitakan, 2004).

7.2 Unexpected results

There were three results in this study that were unexpected. In this paragraph I will describe the result and give explanations for the result with the help of earlier conducted research.

The first unexpected result was the overwhelming amount of health related sustainability hashtags created by consumers for the chocolate brand Tony's Chocolonely. As described in the theoretical framework, health is often a strong motivator for consumers to purchase sustainable foods. Thus, this was not unexpected. However, the large amount of health related hashtags for specifically this chocolate brand was unexpected. Namely, 62,3% of the sustainability hashtags were related to the category Healthy eating, lifestyle & dieting. Tony Chocolonely does not sell chocolate bars with sugar replacers, extremely high cacao percentages or raw cacao, which could be perceived as 'healthy chocolate bars'. I have identified three explanations for this unexpected result. First, some consumers label sustainable food products as healthy, no matter if the sustainable claim has or does not have a link to health. Examples of sustainable claims without human health relations are non-GMO, FairTrade and environmentally friendly. This is the so called 'health halo' as described by

Pelozo et al. (2015) in their article with the explaining title '*When companies do good, are their products good for you? How corporate social responsibility creates a health halo.*' The cause of the health halo is according to the authors, dedicated to the interference making process of the consumers. This means that they use information about one attribute of a product to infer information about another attribute that is not apparent or unknown. If consumers think that a FairTrade chocolate bar is healthier than a non-FairTrade chocolate bar, than this means that there is an extra-attribute misestimation. Also other studies such as Prada et al. (2017), show that consumers can perceive a product healthier when it has a non-health related sustainability claim. In their study unprocessed organic foods where perceived as more healthful and tastier and also less caloric then conventionally produced products. Secondly, a large amount of the sustainability hashtags were surrounded by hashtags about fitness and #cheatmeal. Cheat meals are described by Murray et al. (2016, as cited in Pila et al., 2017, p.19), as 'the consumption of on objectively large amount of food in a short amount of time, the loss or 'letting go' of control, and subsequent attempts to compensate via restrictive dietary practices.' Especially large amount of foods that are highly calorie dense are eaten in cheatmeals according to Ilpa et al. (2017). Users portray cheat meals as 'rewards' that motivate to reinforce long periods of commitment to fitness practices and dietary restraint. The consumers show on Instagram that they enjoy their cheatmeals, but that they still have self-control to choose Tony's Chocolonely's ethical, more expensive chocolate bar. The third explanation is, is that the ethical attributes of Tony's Chocolonely can decrease the guilty feelings that might appear when consuming the chocolate, as explained in the research of Peloza et al. (2013) about ethical attributes of food and avoiding anticipated guilt. Also the study of Newman and Trump (2017) indicates that consumers can alleviate their feelings of guilt by connecting with ethical brands. It is good to consider when interpreting these results that under the target group of Instagram (young females), the social media phenomenon fitspiration has emerged recently and this influences the overall results. Fitspiration means that users create online content to promote health and fitness (Simpson & Mazzeo, 2017).

The second unexpected result, was the extremely little amount of sustainability hashtags created in the traditional sustainability topics of environmental issues, activism and self-sufficiency & homegrown. Consumers created 2,4% of the sustainability hashtags in the category Environmental issues, 0,9% in the category Activism, saving and change and 3,0% in the category Self-sufficiency & homegrown. For brands this was 3,2% in the category Environmental issues and 0,1% in the category Self-sufficiency & homegrown. In the theoretical framework, I described that sustainability evolved from an

altruistic movement to a self-benefit concept as described by for example Rice (2013) in the theoretical framework. However, I did not expect to see so little sustainability hashtags related to the altruistic sustainability categories. A possible explanation for this might be that the self-benefit concept is represented more strongly among the consumers that produced the Instagram posts, than on the average population.

Lastly, the results of this study did not show strong evidence that brands influence the way how their consumers communicate about sustainability. Three out of five brands managed to have one or two brand related sustainability hashtag to be reproduced by their consumers. This finding was unexpected and suggests that brands have limited power to influence their consumers' thoughts about topics such as sustainability. It contrasts with research such as Stathopoulou et al. (2017) which concluded that brands can influence the types of hashtags consumers generate, by for example creativity in TV advertising. A possible explanation of this finding, is that the generation of the hashtags is more strongly influenced by hashtag use by other Instagram users, input from other sources (e.g. news, magazines) and the creativity of the hashtag creator, than by the brand itself.

7.3 Limitations of the study and recommendations for future research

The study has a number of possible limitations that limits the generalizability of the results. First, the FGC of certain brands was limited. For example, the case brand Peeze, only created 58 sustainability hashtags in one year. This low number does not increase the generalizability aspects of this case study, but that was not the main focus of the research.

Secondly, I have chosen only the social media channel Instagram to analyse the co-creation of a sustainable image. The conclusions of the study would be more reliable if more principles of triangulation were applied and also the content from other social media platforms would have been analysed. However, the algorithms of, for example Facebook, can make analysation challenging. Further, it would be challenging to find enough sustainability focused SMEs in the food industry with a good representation on a wide variety of social media platforms. Another method to increase triangulation would have been the use of surveys or interviews. However, it could be challenging to compare the results because consumers and brands behave differently online than in real life.

Lastly, in this research I found the sustainability hashtags by analysing posts on the Instagram page of the brand and by using #sustainablebrand. This created a sufficient amount of content to analyse. However, there is much more content related to the brand and sustainability on Instagram with a slightly different hashtag and with '@' instead of '#'. For example, if users want to interact with a brand, they can use @brand. Unfortunately it is not possible to search all the posts using this construction. Users also use different hashtags related to the brand, for example #tonyschocolonely #tonychocolonelys #tonys #tonyschocolate and #tonychoco for the case brand Tony's Chocolonely. Brands itself also use different hashtags such as Seamore which uses both #seamore and #Iseapasta. I tried to choose the hashtag which most consumers used and this created a sufficient amount of data to analyse and provide insights.

Further studies are required to establish a deeper understanding of the co-creation of a sustainable brand image, on both the side of the brand and on the side of the consumers. Qualitative studies in the form of for example interviews or surveys with open ended questions, could be conducted with the brand managers and consumers to create this deeper understanding. Furthermore, it would be interesting to conduct a similar study like this, but then compare the sustainable image between brands which are strongly identified with sustainable consumption (e.g. Tony's Chocolonely) and not strongly identified with sustainable consumption (e.g. Milka), in order to identify if the effects now seen are really related to the sustainable aspects of the sustainable food brands. Lastly, it would be interesting if similar research could be conducted with software that would take over the analysis of the sustainability hashtags. This would support the conduction of research of bigger amounts of data (e.g. more brands and/or a longer time period). Also, if designed in a practical way, brand managers could use this tool in order to analyze the sustainability image communicated by their consumers and possibly adapt their (online) sustainability marketing based on this data.

7.4 Evaluation of the research process

Although the methodology seemed logical at the end, there was some experimenting in the beginning. Many brands have been considered to study, but most of them did not comply with one or more criteria that were established to select the brands. One common problem was the lack of sustainability hashtags created by the brand itself. On the other hand, sometimes the large amount of posts formed a challenge to manually analyse the hashtags. Attempts were made to automatize the data collection process until the level of programming, but these were unsuccessful due to the analysation restrictions of

the social media platform Instagram. Suggestions to use one hashtag (for example from one campaign) and use this to find the data have been given multiple times, because it would be easier to analyse and because this has been used frequently in previous studies. However, this approach would not give answers to the research questions and also would not fit the context of SMEs, which often do not have large social media campaigns. Further there were many considerations which elements (e.g. picture, hashtags, comments) in the post would provide insights to answer to research questions. However, the choice for the hashtags in the end provided data with valuable insights.

7.5 Implications of the study

This is the first study, to my knowledge, to examine the co-creation of sustainable brand image on social media. Because of the need for a sustainable transition, the increasing interest of brands for sustainability and the increasing use of social media, this study contributes to the expansion of knowledge in the specific niche of brand image, sustainability and co-creation. This study shows the power of the consumer in how other consumers perceive sustainability and confirms previous conducted research that shows the transition in sustainability from conducting altruistic activities to enhancing your self-image.

Although the study has been conducted in the niche region of co-creation of a sustainable image of sustainable food brands on social media, the results could also be beneficial to other broader regions such as brand image and identity, sustainable consumption and social media marketing. The findings of this study can contribute to the development of the knowledge of academia and professionals about co-creation of a sustainable brand image by using and analyzing social media platforms. The most interesting findings of this study for these related research fields, is that consumers strongly associate sustainable food products with health aspects and that self-benefit motivations are important, that there can be large differences in the sustainable image as communicated by the brand itself and the sustainable image as communicated by its consumers, and that brands have only limited power to influence how their consumers communicate about sustainability related to their brand. Only by very actively involving consumers, such as the brand Kromkommer with its diversity hashtags, some influence can be created.

8 CONCLUSION

The topic of this thesis is the co-creation of a sustainable brand image on social media. For the five SME brands chosen for this thesis as case brands, social media platforms such as Instagram can play an important role in the marketing of their products by their consumers. However, this also means control and power transfers to the consumers, with whom the brand co-creates a (sustainable) brand image. The specific niche area of brand image, identity, sustainability, social media and co-creation has received scarce attention from scholars. This led to the research question: How is a sustainable brand image co-created on social media?

In order to answer the research questions content analysis within a multiple case study was conducted under five Dutch sustainable food brands. Of every brand, the sustainability hashtags made by the brand itself and their consumers on Instagram were analysed. Coding was used to categorize the sustainability hashtags into ten sustainability categories. The amount of sustainability hashtags between the categories, brand and consumer generated content and brands were compared. Also the specific words used in the sustainability hashtags were compared between the ones created by the brand and the ones created by their consumers.

The main findings are that there can be big differences between the sustainability categories addressed by the brand and the sustainability categories addressed by their consumers in the Instagram posts. For brands the categories Healthy eating, lifestyle & dieting, Origin, supply chain & Fairtrade and Diversity are the most common sustainability categories to create sustainability hashtags about. For consumers the sustainability categories Healthy eating, lifestyle & dieting, Vegetarianism and Origin, supply chain & Fairtrade are most common to communicate about. It was interesting to notice that traditional altruistic sustainability categories such as environmental issues, organic, self-suffiency & homegrown and activism were not popular to communicate about both for the brands and their consumers. The words used by the brands and their consumers to express certain sustainability topics were compared to find out if consumers take over sustainability hashtags used by the brand. The study did show that some sustainability hashtags were taken over, but not on a large scale.

Thus how is a sustainable image co-created on Instagram? The results of this study give the impression that consumers have an active role in the co-creation. Because the consumers' hashtag creations are influenced by presenting yourself the best on Instagram, food and lifestyle trends and assumptions about health and sustainable food, the sustainability images communicated by the consumers can be very different than the sustainability image expressed by the brand.

After having conducted this study, if I had a couple of sentences to say to the sustainable case brands but also other sustainable brands, it would be the following: 'Keep spreading your sustainable message on your package, on Instagram and other outlets. The consumers make their own version of your brand story together and they translate it into brand attributes that might not be consistent with the story you had in mind to spread with your brand. You have limited control over this. However, they incorporate trends in their hashtags that help to increase your brand awareness. Analyse which sustainable image your consumers create about the brand, and connect with them by using the same sustainability hashtags which connect to your brand.' I would like to end this thesis with a, for this thesis, modified quote of Steve Jobs:

'The brands that think they are crazy enough to change the world are the ones that do.'

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APPENDIX 1: Acronyms and Languages

Acronyms

FGC	Firm-generated content
UGC	User-generated content
SME	Small and Medium Enterprise

Languages

The studied sustainability hashtags in this thesis are communicated in English and Dutch on Instagram. In order to make this thesis understandable for non-Dutch speakers, often a translation is provided in brackets by using the following format:

Dutch [English]