

HOW CAN SOCIAL MEDIA LEGITIMIZE CIRCULAR BUSINESS MODELS?

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Abstract - English

Purpose- The current take-make-dispose model is unsustainable for the future. Circular business models can be the answer to a more sustainable economy. However, consumers might be skeptical and distrustful of a circular business. This study wants to investigate how social media can be used to legitimize circular business models and to what extent these strategies impact the achieved legitimacy.

Approach- A multiple case study was conducted to deduce which strategies are applied and how they impact achieved legitimacy. Purposive sampling was used to gather the data. Only circular companies within the food industry were selected to be able to better compare findings and narrow the scope.

Findings- This research discovered several criteria that should be considered when using social media as a firm. Firms that want to use social media as a means to achieve legitimacy of their circular business model (1) need to focus on a background positioning through hashtags (i.e. no specific references to circularity or sustainability), (2) should avoid promotional focused content, (3) must create interactive and connecting posts, (4) promote relationships with other credible circular companies and provide information about their actual efforts (i.e. external legitimation), (5) post with the same frequency on all channels while (6) avoiding to post multiple times per day.

Value- This study is one of the few papers actually discussing which social media strategies are effective in achieving legitimacy.

Abstract - Portuguese

Objetivo - O modelo atual de produzir-usar-descartar é insustentável para o futuro. Modelos de negócios circulares podem ser a resposta para uma economia mais sustentável. No entanto, os consumidores podem ser céticos e desconfiados relativamente a um modelo de negócios circular. Este estudo visa investigar como as redes sociais podem ser usadas para legitimar modelos de negócios circulares e em que medida essas estratégias impactam a legitimidade alcançada.

Abordagem - Foi realizado um estudo de caso múltiplo para deduzir quais estratégias são aplicadas e como elas impactam a legitimidade alcançada. A amostragem intencional foi usada para coletar dados. Apenas empresas circulares na indústria de alimentos foram selecionadas para melhor comparar descobertas e limitar o escopo.

Resultados - Esta pesquisa descobriu vários critérios que devem ser considerados ao usar as redes sociais como uma empresa. Empresas que desejam usar as redes sociais como meio de alcançar a legitimidade do seu modelo de negócios circular (1) precisam se concentrar numa posição de fundo por meio de hashtags (ou seja, sem referências específicas à circularidade ou sustentabilidade), (2) devem evitar conteúdo focado em promoção, (3) devem criar postagens interativas e conectivas, (4) promover relacionamentos com outras empresas circulares credíveis e fornecer informações sobre os seus esforços reais (ou seja, legitimação externa), (5) postar com a mesma frequência em todos os canais, evitando (6) postar várias vezes por dia.

Valor - Este estudo é um dos poucos trabalhos que discutem efetivamente quais estratégias de redes sociais são eficazes na obtenção de legitimidade.

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Introduction

Increased wealth over the years led to a dramatic growth in population (Andrews, 2015). The global population is estimated to grow even further to 9.6 billion by 2050. This is accompanied with a significant rise in demand for many resources (Andrews, 2015; News European Parliament, 2015). More minerals, metals and fossil fuels were consumed during the 20th century than in all preceding centuries combined and this demand is expected to increase even more. If we continue at this pace, we would need more than two planets of natural resources by 2030 to meet this demand (Esposito et al., 2018). Moreover, many of these resources are finite and we are already confronted with restricted supply (Andrews, 2015). The linear economy and our corresponding ‘single use’ lifestyle leading to mass consumption and production, is testing the physical limits of our planet (Esposito et al., 2018). This influences economic viability and can even lead to the inability to produce certain products (Andrews, 2015). Simultaneously, the demand for water and energy is also increasing. Damaging emissions to water, air and soil caused by the high consumption and production directly impact the climate, weather patterns and ecosystems. This can have disastrous consequences such as drought, flooding, crop failure, mass migration, etc. In conclusion the linear economy is clearly unsustainable and there is a need to change towards a different model (Andrews, 2015).

The circular economy has attracted a lot of interest in the search to move to a more sustainable model (Lewandowski, 2016). It can be defined by its focus on maximizing the utilization of resources that are already in use and already produced assets (Esposito et al., 2018). Of course changing to a circular economy can significantly reduce the negative impact on the environment, e.g. each nation would notice a reduction of their greenhouse-gas emissions by up to 70% (Lewandowski, 2016; Stahel, 2016). Moreover, the change could also save hundreds of billions of US dollars in the EU alone and grow each nation’s workforce by about 4% (Lewandowski, 2016; Stahel, 2016). Further, circular business models (CBM) will lead to lower manufacturing prices for the businesses that adopt this model (Zhang et al., 2021). Firms will also become more efficient in a circular economy because they are able to recycle and reuse their products in a more efficient manner (Aboulamer, 2018). Moreover, Aboulamer (2018) add that an even more valuable characteristic of the circular economy for businesses is the development of a more stable and interactive relationship with its consumers.

It is clear from this information that business model innovation to achieve a circular business model is beneficial. However, this transition is a rather complex process (Susur & Engwall, 2022). There might be problems relating to regulatory rules, for example because of lack of clear definitions and priorities. Further, technology and infrastructure are of utmost importance to support the collection, sharing, utilization and management of information in the transition to functioning circular business models. It requires active participation by various actors, e.g. firms, consumers, governmental organizations, ... (Susur & Engwall, 2022). Biloslavo et al. (2020) add that circular business models often require the involvement of the entire value chain. Moreover, consumers might be skeptical and distrustful of a circular business: they might perceive products based on circular economy principles as high-risk or uncertain compared to equivalent products offered in the market (Cantú et al., 2021). Therefore, to operate effectively, firms must acquire proper legitimacy

among employees, consumers, suppliers and financial institutions. This legitimacy can be defined as the belief that the firm aligns with social norms, values and expectations (Palazzo & Scherer, 2006).

Legitimacy can be achieved through hard and soft strategies (Banerjee et al., 2021). Hard strategies approach legitimation (i.e. the process to achieve harmony between the social values linked to the firms activities and the standard of acceptable behavior in society) of firms in a direct manner by means of laws, regulations and mandates (Banerjee et al., 2021; Rendtorff, 2019). Soft policies on the other hand legitimize more indirectly through campaigns and moral suasion, i.e. attempting to influence intrinsic motivation to achieve the desired behavior (Banerjee et al., 2021; Ito et al., 2018). There are several reasons why social media could serve as a platform for circular businesses as a route towards soft legitimation. First, it has characteristics that can help achieve the essence of soft legitimation. Second, social media is becoming significantly important as a new way to express our beliefs, ideas and manner in the 21st century (Saravanakumar & SuganthaLakshmi, 2012). Consequently, one of the major trends in e-commerce is the use of social media (Gazzola et al., 2020). This way of message supports social interactions and opens new roads of interaction that allow companies to talk to their consumers while simultaneously allowing users to talk to each other (Camacho-Otero et al., 2019; Saravanakumar & SuganthaLakshmi, 2012). Remember that an important step in legitimizing circular business models is the continuous exchange of information between all actors involved. Therefore, social media could provide a platform for companies to stimulate legitimation.

The purpose of this thesis is to discover the role social media, as a platform that allows interaction and engagement, can play to help businesses to legitimate their circular business models in the eyes of the consumer. Legitimation refers here to the process to achieve harmony between the social values linked to the firms activities and the standard of acceptable behavior in society (Rendtorff, 2019). Therefore the research question is: “How can firms use social media to legitimize their circular business model and to what extent does this impact the achieved legitimacy?”.

This thesis proceeds as follows. The first part discusses the emergence of circular economy followed by the role circular business models play here in. Second, the legitimation of CBM is discussed with the distinction between soft and hard legitimation. The third part covers how social media can be a route towards soft legitimation. Next, a multiple case study determines which social media strategies are used and how they impact the firm’s achieved legitimacy. Finally, the discussion chapter highlights the key findings of this research together with some limitations of this study and several recommendations.

1. Literature review

1.1. Circular economy

1.1.1. Emergence of circular economy

The current global way of living is unfeasible from a sustainability perspective (Elisha, 2020). The corresponding challenges are generally acknowledged: waste, pollution, climate change, resource scarcity, loss of biodiversity, etc. However, we want to keep growing both as an economy as well as with our population (Elisha, 2020). The traditional linear “take-make-dispose” model has dominated the overall development so far, leading to significant environmental harm (Korhonen et al., 2018). This linear model consists of subtracting raw materials from the Earth, making products from them and eventually dispose of them as waste (Ellen MacArthur Foundation, n.d.). Elisha (2020) agrees that it relies on cheap and available resources to create the growth and stability we so desire. Circular economy (CE) is recommended as an alternative to this linear approach, since it is sustainable and supports economic development as well (Korhonen et al., 2018). The concept of a circular economy has been trending for a while as it is promoted by many businesses worldwide, national governments and the EU (Korhonen et al., 2018). According to Korhonen et al. (2018), CE emphasizes reuse of material and components, refurbishment, repair, as well as the use of renewable energy throughout the product value chain. The Ellen MacArthur Foundation (n.d.) underlines that circular economy is based on three principles: eliminating waste and production, regenerating nature, and keeping materials in use as a product, as individual components or as raw materials.

1.1.2. Role of circular business models

In order to carry out the concept of a circular economy at an organizational level, business models provide important support (Geissdoerfer et al., 2020). A business model describes how an organization creates, delivers, and captures value. By leveraging environmentally, socially, and economically effective technologies and solutions, business models enable companies to meet their social and environmental goals. Changes in business model components support the development of a more circular service model (Lewandowski, 2016). The affected components are: value propositions, activities, processes, resources, capabilities, revenue models and customers. A circular business model combines the elements of a business model with the principals from circular economy (Geissdoerfer et al., 2020). This means including measures for “closing” and “narrowing” the loop for example. Closing the loop refers to changing from linear flows to circular or closed-loop flows (Brydges, 2021). This implies minimizing waste to the minimum and turning what used to be considered waste into a valuable resource (European Parliament, 2016). Other measures relate to extending and intensifying use, and the substitution of products by service and software solutions (Geissdoerfer et al., 2020). Hence the focus of a circular business model is how to reach the goals of the business model while minimizing ecological and social costs (Hofmann et al., 2017). Geissdoerfer et al. (2020) define a circular business model innovation not merely as the shift from linear to a circular business model. They add that this type of innovation integrates the CE principles in order to boost efficiency and effectiveness and aims at closing the loop (energy and resource flows). These innovations will likely lead to higher returns in comparison to product or process innovations (Geissdoerfer et al., 2020). Thus, the fast and successful introduction of these business

models can potentially generate an important “renewable” competitive advantage. Geissdoerfer et al. (2020) continue that organizations that take part in the sustainable business model innovation are able to improve their social and environmental performance. Moreover, they are more resilient to risks imposed by their environment.

One can see that based on the different affected components many variations in business models are possible and therefore various taxonomies can be defined (Baden-Fuller & Morgan, 2010).

Urbinati et al. (2017) discuss a taxonomy to categorize organizations based on the different degrees of circularity in practice. They focus on two major dimensions to distinct circular business models: the customer value proposition & interface and the value network. The former focuses on the implementation of circular concepts in proposing value to consumers and how that influences the competitive position of the company. This dimension is relevant from a circular economy perspective only if companies demonstrate their conformity with the circular aspect to the consumer. The value network determines how companies interact with their suppliers and reorganize their key resources, key activities and up-stream partners. This dimension focuses on measuring how many and which circular operational practices are embraced in the company’s internal activities.

By crossing these dimensions, Urbinati et al. (2017) define four modes of adoption of circular economy principles by companies, i.e. linear, downstream circular, upstream circular and full circular. Traditional business models adopt this first mode, focusing on the linear flow of ‘resources-product-waste’. There is a low integration of circularity both on the value network and on the customer value proposition & interface dimension. The downstream circular mode means that firms demonstrate circularity to their consumers by launching a marketing campaign or adopting a price scheme based on the use and re-use of products (high customer value proposition & interface). However, this circularity is not reflected in the internal activities, design procedures or suppliers (low value network). The focus of these firms is on the revenue stream leading to market penetration as an advantage. Firms that adopt the upstream circular mode on the other hand, do integrate circular principles in their internal activities such as product design but do not show this to their consumers (high value network, low customer value proposition & interface). This strategy will eventually lead to effective relationships with new suppliers. Thus the focus here is on cost structure leading to cost efficiency as an advantage. Finally the full circular mode entails firms that are both internally and externally circular (high value network, high customer value proposition & interface). This means that the production system as well as the involvement of suppliers incorporate circular principles. Further, the implementation of circular practices in this mode is considered valuable and hence clearly communicated to the consumers. Table 1 summarizes the characteristics of the different modes of adoption.

Table 1*Characteristics modes of adoption of circular economy (Urbinati et al., 2017)*

Linear	Downstream circular	Upstream circular	Full circular
Linear flow of 'resources-product-waste'	Circularity communicated to customer	Circularity in internal activities such as product design	Circularity in production system & involvement of suppliers, communicated to customer
Low integration value network dimension	Low integration value network dimension	High integration value network dimension	High integration value network dimension
Low integration customer value proposition & interface dimension	High integration high customer value proposition & interface	Low integration high customer value proposition & interface	High integration high customer value proposition & interface

Another example of a taxonomy categorizes CBMs based on differences in logics for value creation (Fehrer & Wieland, 2021). This taxonomy consists of four categories: efficient material-technical loops, effective product-service loops, social-collaborative loops and symbiotic ecosystems. The first category creates value by closing, slowing and narrowing biological and technical loops. Bocken et al. (2016) define closing resource loops as reusing materials through recycling to achieve a circular flow of resources. Slowing resource loops refers to the design of goods to extend their product-life, e.g. through repair or remanufacturing (Bocken et al., 2016). Hence, this will slow down the flow of resources. The goal of narrowing resource loops is to use fewer resources per product and thus achieving a higher resource efficiency (Bocken et al., 2016). Consequently, circular business models that focus on material-technical loops maximize material and energy-efficiency by designing for durability, repairing, refurbishing, upgrading, collecting and recycling (Fehrer & Wieland, 2021). Firms that adopt this type of CBM require a well-coordinated supply chain to be able to deliver the sustainable goods and retrieve them at the end of their life for the recycling process. The second category, effective product-service loops, entails firms that aim to create value through replacing product ownership with access to services. This can be done by paying for use, leasing, renting, maintaining and servitization. Value creation in the social-collaborative loops focuses more on collaboration. Firms that fall in this category aim at bringing actors together to perform sustainable practices effectively. The consumer in this type of CBM plays an active role in cocreating new consumption systems, e.g. systems based on sharing. The final category, symbiotic ecosystems, creates value by closing resource loops by taking advantage of collective action and collaboration of different actors. CBMs in this category recognize the importance of the structure and dynamics of the environment to achieve circularity. This last logic adopts a more holistic and systemic perspective by recognizing the interaction between collective action and the environment (Fehrer & Wieland, 2021). Table 2 summarizes this taxonomy.

Table 2*Characteristics categories of CBMs (Fehrer & Wieland, 2021)*

Efficient material-technical loops	Effective product-service loops	Social-collaborative loops	Symbiotic ecosystems
Value creation through slowing, closing & narrowing loops	Value creation through replacing product ownership with access to services	Value creation through collaboration	Value creation through closing resource loops through collective action and collaboration
Design for durability, repairing, refurbishing, upgrading, collecting and recycling	Pay for use, leasing, renting, maintaining and servitization.	Bringing actors together to perform sustainable practices effectively	Recognition importance of structure and dynamics of the environment to achieve circularity
Requires well-coordinated supply chain			

In conclusion, a circular economy can serve as a sustainable alternative for the current linear economy while still ensuring economic development (Korhonen et al., 2018). To translate this to an organizational level, businesses need to make circular business model innovations (Geissdoerfer et al., 2020; Lewandowski, 2016). However, firms are often confronted with low customer and societal acceptance of their circular business models and a lack of trust in their circular products (Planing, 2015; Vermunt et al., 2019). This is because despite what classic economy theory argues, consumers do not tend to be inherently rational, objective and striving for maximal utility (Planing, 2015). Their decisions are generally more based on subjective beliefs about the considered product or service. For example, research showed customers were reluctant to buy products made of upcycled waste, as using waste as a resource was seen as unsafe (Vermunt et al., 2019). Hence, to overcome this market barrier firms need to proactively create awareness and build legitimacy. The following section discusses this concept and different ways to achieve it.

1.2. Legitimation of circular business models

Consumers might be skeptical and distrustful of a circular business: they might perceive products based on circular economy principles as high-risk or uncertain compared to equivalent products offered in the market (Cantú et al., 2021). This phenomenon is common in emerging economies. Because consumer trust is one of the key elements affecting (online) shopping behavior, this leads to increased reluctance to engage with the company (Cantú et al., 2021; Kim et al., 2021). Therefore, it is important to convince them of the success and honesty of the model in order to create a successful business. This trust and belief of consumers that the firm aligns with social norms, values and expectations is also called legitimacy (Palazzo & Scherer, 2006). The following sections elaborate more on the definitions and discuss different routes to this legitimacy.

1.2.1. Legitimation and legitimacy

Legitimation is defined as the act of making something considered as acceptable and reasonable (Cambridge Dictionary, n.d.). More specifically in the context of businesses, it can be defined as the act of justifying the right of the firm to exist to a subordinate system (Rendtorff, 2019). In other words, legitimation is the process to achieve harmony between the social values linked to the firms activities and the standard of acceptable behavior in society (Rendtorff, 2019). The change to a circular business model is more than just its development and launch (Biloslavo et al., 2020). It creates a need of intensive communication between the firm and its market because its success is highly dependent of the quality of the interplay of various actors (Biloslavo et al., 2020). Therefore, it is important that these business models are properly legitimized to convince the targeted consumers that they work and to prove their circular model. Further, a benefit of legitimation compared to coercion is that it is a much cheaper method of ensuring conformity with rules and norms (Trollman et al., 2020).

Legitimacy, on the other hand, can be defined as the understanding of acceptable, desirable and appropriate actions (Press et al., 2020). It can be divided into two categories: internal and external legitimacy (Biloslavo et al., 2020). The former refers to how actors within a company, for example the CEO or management, perceive and drive the actions that could be beneficial for their business. The latter relates to the organizational environment, regulatory agencies, professional associations and reputation. Examples of these external actors are: customers, banks, suppliers, etc. The legitimation process continuously moves across the border of these two categories through ongoing dialogue between the internal and external audiences of the company. Legitimacy drives stakeholder actions to reinforce the stability of the social context as supported by laws, social norms and culture (Press et al., 2020). In the sustainability context legitimacy can be further specified as the acceptance by stakeholders that the firm is integrating environmental protection, social equity and economic performance in its actions (Press et al., 2020).

Legitimacy can be achieved through hard and soft strategies (Banerjee et al., 2021). Hard strategies legitimize firms in a direct manner by means of laws, regulations and mandates. Soft policies on the other hand approach legitimation more indirectly through campaigns and moral suasion, i.e. attempting to influence intrinsic motivation to achieve the desired behavior (Banerjee et al., 2021; Ito et al., 2018). The following sections discuss these two approaches in more detail.

1.2.2. Hard legitimation

In order to create sustainable business models deep institutional changes, including legal changes, need to be made (Greer et al., 2021). Since legal measures are formal, consistent and authoritative, they play an important role in removing barriers that might impede attempts to achieve a circular economy (Zhijun & Nailing, 2007).

Circular economy legislation involves first and foremost defining duties and responsibilities of governments and other parties, mandatory administrative actions, economic measures and incentives, and other initiatives to engage the people (Zhijun & Nailing, 2007).

Hence, legislation needed to legitimize circular business models should include the following three principles (Zhijun & Nailing, 2007). Firstly, the legislation requires a scientific approach to development, which focuses on overall, coordinated and sustainable development. Next, not only circular economy legislation needs to be considered, but the presence of CE in other legislation as well. Thirdly, economic measures are a very effective means to conserve the environment and resources. Therefore, they need to be promoted in the legislation.

The principal legislative constraints of circular economy development are the lack of clear definitions, conflicting interests among different actors, access to transparent information and sufficient controlling and monitoring systems (Kyriakopoulos, 2021). Hence, when creating a legal framework close attention needs to be paid to the following issues (Zhijun & Nailing, 2007). Legal clauses need to be drafted carefully. They must be specific, clearly defined and unambiguous in order to ensure enforceability (Zhijun & Nailing, 2007). When necessary, the clauses need to be defined in quantifiable terms. Where possible, information can be drawn from other nations that have similar environmental problems. In addition, public voices cannot be ignored. Their insights, motivation and creativity should be integrated.

Zhijun and Nailing (2007) also define vital causes that need to be taken into account in circular economy legislation. Firstly, the legislation has to be coordinated with environmental planning and integrated with economic and social planning. Budgetary support must be provided. Next, the responsibilities of central and local governments need to be stipulated. Furthermore, major polluting enterprises need to be identified. They must be forced to adopt circular economy practices with fitting penalties and incentives in place. Moreover, legislation should encourage the use of energy- and resource-efficient processes as well as not or less hazardous technologies. Every government should invest more in supporting businesses in their creative endeavors to develop these processes and technologies. Legislation should also encourage the formation of diverse investment mechanisms, reward recycling and reuse efforts. It should readjust corresponding taxes, credit and loans, and other financial policies. Recycling and reuse of products and their associated rewards and accountability need to be explicitly stated as well. Legislation needs to reflect intermediary service regulations. Intermediary businesses connect individuals, organizations and governments. Further, legislation needs to hold consumers partially responsible for recycling of consumed products. Lastly, it should enable public participation in the establishment of a circular society.

Finally, legal and regulatory systems can provide a solution to the waste-resource paradox as well by providing boundaries (Greer et al., 2021). Greer et al. (2021) define this paradox

as the possible increase in demand as a result of the commodification of waste in the attempt to repurpose it. Legal systems also carry the opportunity to address some of the unwanted consequences related to the paradox. Funding and support from different policies should be limited to the time it takes to undo the wrong. In other words, the time that is needed to minimize the overflow of waste.

Legal measures are a formal and authoritative way of imposing circular economy development (Zhijun & Nailing, 2007). However, attention should be paid to the specific situation of a country such as the level of development (Jora et al., 2020). Current policies imposed through a top down approach by the EU on its member states sometimes have negative consequences. Concretely, the source of these consequences can be identified as an ‘institutional mismatch’. This mismatch is due to the levels of economic development of the member states not being in line with the EU’s generally set targets. The lower level of economic development goes hand in hand with a lack of social institutions and local legislation to support the imposed targets. Because the development in different states of the EU is highly heterogenic, for some the imposed rules to implement circular economy might be way too ambitious because their social context is not on that same level yet. Due to the EUs top-down approach the costs will disproportionately fall on the private sector and will be partly transferred to the final consumer. Further, if some local governments try to reach the high targets, this may lead to distorted interventionism. Customized sustainable policies for each country, taking its level of development and institutional readiness into account, can solve these issues (Jora et al., 2020). The most effective institutions are those that emerge from the society, through a bottom-up approach in which insights, motivations and creativity from the public are integrated (Jora et al., 2020; Zhijun & Nailing, 2007). It is important to engage all actors, consumers included, to implement CE principles (Kyriakopoulos, 2021). This approach is efficient in tackling the problem because the economic actors involved are actually driven to find a solution to a problem they personally face (Jora et al., 2020). Moreover, since they can personally contribute to the solution they are careful to minimize possible related negative effects that might hurt their activity.

Such a participatory approach leads not only to the legitimization of strategic plans, but to the needed awareness among different actors as well (Longato et al., 2019). The knowledge and preferences of stakeholders and decision-makers can be integrated into sustainable policies. In this way, citizens’ perceptions and preferences about various sustainable topics can be incorporated in the political field thus creating a better environment for legitimization of circular actions. Despite the significant differences in the level of involvement between cities, the participation and dialogue between legislators and different actors are essential to legitimization of the process, higher levels of information and increasing awareness of circular ideas (Longato et al., 2019). Consumers, investors and business partners do not only play an important role in enabling these principles, but in promoting them as well (Biloslavo et al., 2020). Furthermore, these different stakeholders are able to encourage interventions.

This proposed bottom-up approach can be implemented by moving up from a micro to a macro level (Zhijun & Nailing, 2007). Concretely, this means that a circular economy should be integrated first at enterprise level, then in industrial areas, and finally in cities and regions. At this first level, firms should integrate ecological chains by closing the loop of materials and energy internally, and yield profits by in-house growth and operations that maximize resources while minimizing pollution. At the industrial level, one enterprise should use the waste flows of another as resource flow. Thus, an interdependent ecological

system can be formed. In cities and provinces, the aim should be pollution prevention (Zhijun & Nailing, 2007).

In conclusion, in order to reach legitimacy related to good circular economy practices, all stakeholders should be included in the process. Further, legal measures should be constructed based on a discussion with all actors involved and adapted with respect to the level of development of the country (Jora et al., 2020). This way legislative frameworks are received better as well. Sustainable ideas are then both internally as well as externally implemented and have a much larger support. Unfortunately, legislative decision making is a slow process, certainly on the level of the European Union (KÖNIG, 2007). The following section discusses a more rapid route towards legitimation, namely soft legitimation.

1.2.3. Soft legitimation

Soft legitimation is less direct than hard legitimation (Banerjee et al., 2021). Moral suasion, i.e. trying to influence intrinsic motivation to buy a certain product or make use of a service, is an example of a soft legitimation strategy (Ito et al., 2018). Moral suasion can be defined as moral appeals to encourage individuals and shape their behavior (Dal Bó & Dal Bó, 2014). Social preferences can even be used to affect behavior of individuals through displaying moral and ethical statements, or in other words through communication (Dal Bó & Dal Bó, 2014). Palazzo and Scherer (2006) add that cooperations should focus on achieving moral legitimacy since this is crucial for societal acceptance and corporate survival. This type of legitimacy is created through conscious moral judgements on every aspect of the firm, e.g. procedures, output, leaders, ... Thus it is a socially constructed legitimacy that is achieved through giving and considering reasons to justify actions, practices and institutions. It is the result of discussions in which the public actively participates. Therefore, communication is the key route towards this legitimacy (Palazzo & Scherer, 2006).

Ellerup Nielsen and Thomsen (2018) underline the importance of communication as a key element in legitimation strategies because corporate legitimacy is linked to the extent to which firms succeed at building and maintaining stakeholder relations. Communication can be focused on engagement, participation, collaboration and empowerment. Keeping track of the public's reaction towards the companies actions is at the base of realizing legitimacy. Hence, the behavior, attitude and communicative role of all actors within a firm are crucial for soft legitimation. Therefore it is important to allow for a two-way communication that invites all stakeholders to interact and allows for their opinions on the initiatives, policies and programs of the firm. Ellerup Nielsen and Thomsen (2018) state that this leads to higher credibility and is more stimulating for stakeholder engagement. Table 3 summarizes the essence of hard and soft legitimation approaches.

Table 3

Characteristics hard and soft legitimation

Hard legitimation	Soft legitimation
Direct	Indirect
Legal measures	Attempting to influence intrinsic motivation

Laws, regulations, mandates	Campaigns, moral suasion, ...
Formal	Socially constructed legitimacy
Authoritative	Behavior, attitude and communicative role of all actors within a firm are crucial
Integrate public voices	Two-way communication

Firms are aware of the need to focus on two-way communication with consumers (Schivinski & Dabrowski, 2016). Social media provide both groups with new means of engagement (Schivinski & Dabrowski, 2016). Further, there is growing evidence to show that social media can provide new channels to form and challenge the legitimacy of firms (Glozer et al., 2019). Social media provide a platform for information sharing and conversations with key stakeholders, thanks to its interactive and co-creative character (Ellerup Nielsen & Thomsen, 2018; Holmgreen, 2021). Moreover, users get instant access to express approval or disapproval of the behavior of an organization (Holmgreen, 2021). This can potentially lead to long-term effects on the organization's image and earnings. Thus, the dialogue generates valuable inputs related to the image and general perception of a business in society.

Holmgreen (2021) also points out that the use of social media comes with a risk. If corporations are not careful with the management of their online communications, both in form and content, negative public reactions to the corporate communication might spin out of control. This backlash may result in potentially catastrophic consequences leading to the loss of financial resources and damage to the corporate image. Because social media allow to reach a lot of people in a very short amount of time, the sporadic deviation of social norms or the values of an individual that did not used to have an impact on the organizational legitimacy before, now can lead to dramatic changes. Therefore it is of utmost importance to address conflicts while they are still small to avoid the development into crises risking the survival of the company.

A lot of research focuses on how governments can use social media to legitimize their actions. Authorities use them often when introducing controversial policies that many voters disapprove of or when facing a risk of policy failure (Hansson & Page, 2022a, 2022b). These strategies are focused on avoiding blame and justifying unpopular actions. A clear example of the use of social media by governments is how Donald Trump uses Twitter as a prominent channel of political communication (Ross & Rivers, 2020). His communication style on Twitter is more informal and often contains anti-intellectual language. His approach forms the core of his strategy to legitimize his own beliefs, values and actions. Many of his proposals during his campaign and following actions have been perceived as controversial and therefore the legitimization thereof was very important to convince the public.

There are different strategies that can be applied when using social media as a means to legitimization (Ross & Rivers, 2020). First, a common tactic is integrating emotions in the political discourse. The underlying goal of this approach is to change the opinion of the target audience regarding a certain matter. Referring to a 'we' group and a 'they' group can help to achieve this. If the actions of the 'they' group are communicated as ones that evoke a fearful response, legitimacy can be achieved by referring how to neutralize this group.

Second, a hypothetical future can be highlighted in the communication through ‘cautionary tales’ or ‘alternative future projections’. For example, Trump uses this to legitimize his idea to build a wall by saying that without the wall there will be several negative consequences. The third strategy makes use of rationality to underline that the action was achieved through a thoughtful procedure and was not a rash decision. Fourth, references to experts or authorities in the field can help to strengthen the decisions. They are more persuasive and convincing in the eyes of the public. Finally, proving that the policy was made out of selfless reasons, for the greater good, can establish legitimacy. This is what Ross and Rivers (2020) refer to as the notion of altruism.

In comparison to the research done about governments there is very few research that looks into how firms can legitimize their strategies, and by extension their business models, by using social media. Chassé and Boiral (2017) show how small - and medium- sized enterprises can legitimize their lack of commitment to sustainability. However no attention is paid to how they can legitimize their circular business model and engagement to sustainability. This thesis tries to address this research gap and will further dive into the strategies firms can use on social media to legitimize their circular business models and to what extent these influence their achieved legitimacy.

1.3. Social media as route towards legitimation

1.3.1. Why social media as a route towards soft legitimation

There are several reasons why social media could serve as a platform for circular businesses to achieve legitimation. First, it has characteristics that can help achieve the essence of soft legitimation. For one, it can be used to generate campaigns (Ferrara et al., 2021). Further, social media are an important tool to achieve participatory, or two-way communication (Russo et al., 2008). Second, today, mobile data traffic has clearly surpassed desktop traffic (Gazzola et al., 2020). Furthermore, half of the “millennials” spends more than three hours every day on their personal smartphones. This goes hand in hand with social media becoming significantly important as a new way to express our belief, ideas and manner in the 21st century (Saravanakumar & SuganthaLakshmi, 2012). Consequently, one of the major trends in e-commerce is the use of social media (Gazzola et al., 2020). This way of message supports social interactions, and lets the users contribute to assist in sales and purchases of online products and services. It opens new roads of interaction and allows firms to talk to their consumers while simultaneously allowing users to talk to each other (Camacho-Otero et al., 2019; Saravanakumar & SuganthaLakshmi, 2012). Thus, many relationships between customer and company are changed because of this evolution (Camacho-Otero et al., 2019). Users can express their thoughts, opinions, concerns or other feelings while producers are able to react and solve problems rapidly (Jiang et al., 2021). Remember that an important step in legitimizing circular business models is the continuous exchange of information between all actors involved. Therefore, social media could provide a platform for firms to achieve this interaction. Thus, through this way, the top-down approach of achieving legitimacy can be implemented. However, to the best of my knowledge there is no research that shows which specific social media strategies firms can use to accomplish this legitimacy.

One of the main reasons why circular business models are still not the standard, even though the benefits of a circular economy are obvious and the basic concepts are already available for a long time, is because of the irrationality of consumers (Planing, 2015). Consumers

tend to evaluate the transaction cost only at the moment of purchase, thus ignoring the potential more economical choice of upgrading to a more expensive but more durable product. Further, consumers typically prefer ownership over temporary usage, regardless of the latter being more economical. Instead of basing their decisions on objective factors, they often base their choices on more subjective beliefs about the product or service in question. Therefore, consumers are not always rational nor utility-maximizing. This behavior is often led by subconscious, deeply-rooted motives, which cannot be directly observed. Subjective norms play an important role in influencing this behavior. They represent the perceived social pressure to behave or not behave in a certain manner. This pressure is defined by two components: injunctive and descriptive norms. The former represent perceptions concerning what should be done, while the latter represent the perceptions that others are or are not performing the behavior in question. Generally, consumers base their decisions of adopting a particular behavior on the number of relevant others, such as influencers, who are or are not already performing that behavior. Therefore, early adopters of circular business models need to be made visible in order to influence their peer network to adopt as well (Planing, 2015). This process can help increase the consumer and user acceptance of circular offerings, which is crucial for the transition to a circular economy (Camacho-Otero et al., 2019). User acceptance can be described as the positive intention of person to access a certain service or acquire a product. Hence, user acceptance is yet another motive to make use of social media as a route towards soft legitimation.

Another reason that underlines the opportunity of using social media, is the abundance of data. User research for traditional offline business is typically done by using surveys and interviews, whereas for the more online businesses, the internet has become a rich source of data to collect information on consumer opinions (Camacho-Otero et al., 2019; Shokouhyar & Shahrashbi, 2022). User-generated online reviews are an important source for this type of research. These online customer reviews can be defined as product evaluations posted on the company or third party websites (e.g. social media) generated by peers (Camacho-Otero et al., 2019). In this manner social media plays a hybrid role in the promotion mix (Saravanakumar & SuganthaLakshmi, 2012). This has an enormous impact on businesses, namely, without a correct plan and social media strategy they have no chance to gain a strong competitive position in the rapidly changing digital world.

Using user-generated reviews and similar online communication methods has several advantages (Camacho-Otero et al., 2019). First, users can be more articulate regarding what they want to communicate. Second, from the viewpoint of the producer, the costs of acquiring this type of data is relatively low compared to traditional data. Next, they allow the choice between anonymity and sharing personal information. Further, the data is not steered by the researcher and therefore provides unfiltered data. Another advantage is the permanent or relatively permanent availability of the data. Additionally, participants from all over the world can interact and provide insights.

A final advantage of the data offered by social media, is that it can be easily used by firms to generate metrics to measure legitimacy. The first metric is the number of followers. The followers of a firm's social media page can be interpreted as social capital because they support the brand and trigger a network effect (Kim, 2020). This effect is the positive word of mouth that results from the instant exposure of content that is liked, to the peer network of the liker. This has a positive effect on the firm's reputation, and reputation and legitimacy are closely related (Czinkota et al., 2014; Ettenson & Knowles, 2008). Since reputation is

the firm's credibility and respect within a broad set of people, including employees, customers and local communities, it is in line with the definition of legitimacy (Ettenson & Knowles, 2008). Further, people are influenced by what they perceive others to think about the brand (Tyler, 2006). If they consider the firm supported by peers, it is viewed as more legitimate. Hence, more followers, as an indicator of peer support, will result in the firm being perceived as more legitimate.

Second, Lee et al. (2018) add that not only the number of followers is a signal of peer support and the firm's adherence to social norms, but the number of likes, shares and comments as well. For the latter, the valence of the comments is important (i.e. the emotional tone of the comments) (Lee et al., 2018; Yost et al., 2021). Lee et al. (2018) argue that it is even more important for firms with a lower number of followers. Because in that case, consumers start evaluating the comments more carefully to find other cues about social acceptance by peers, since a low number of followers is not convincing. Positive user comments lead to more positive reactions. Further, when firms have a high number of followers, negative user comments are more likely dismissed (Lee et al., 2018).

Finally, the quantitative metrics relating to volume (i.e. number of followers, likes, shares, comments) can be combined into one metric: social media engagement rate (Yost et al., 2021). Hence, it measures the quantity of responses and interactions generated by users on social media in response of posted content (Jaakonmäki et al., 2017). Yost et al. (2021) define this as the average number of interactions (i.e. comments, shares, likes) divided by the number of followers, expressed as percentage. However, research proposes diverse formulas. For example, Arman and Sidik (2019) propose the formula $\frac{\sum_{i=1}^n (L_i + 2C_i)}{3nPF}$ with a higher weight for comments than for likes (where L = likes, C = comments, n = total posts, P = probability for followers to see the post and F = total followers). Nevertheless, it generally measures the same, namely the percentage of people who react to content in some way (Jaakonmäki et al., 2017). This reaction could be liking, sharing or commenting on a post for example.

1.3.2. Social media strategies for influencing consumer behavior

More and more young consumers are highly sensible to social and environmental issues (Gazzola et al., 2020). Social media plays a significant role in developing this green consciousness (Pop et al., 2020). Studies have shown a relationship between this consciousness and green purchasing choices. Thus, social media can essentially contribute to the change towards green buying behavior of consumers. The resulting downside of this evolution is that companies need to be more careful than ever with advertising and should be strongly focused on anticipating consumer response and avoiding unanticipated blunders to prevent a viral consumer backlash (Saravanakumar & SuganthaLakshmi, 2012).

With the rise of social media, the importance of a company's website in its communication of their marketing capacity and identity has become clear (Chamberlin & Boks, 2018). Therefore, factors such as aesthetically pleasing visuals, ease of use, interactivity, trust and playfulness are becoming more important in acquiring loyalty and confidence from their customers. Chamberlin and Boks (2018) identify ten groups of motivating or barrier factors that may affect consumer acceptance of circular business models. The first group entails the barrier of 'disgust' that consumers perceive when using remanufactured or access-based products that have been previously touched by others. Moreover, consumers might not

experience the thrill of newness when confronted with refurbished products. This consumer factor is called ‘contamination’. Second, the ‘convenience’ factor describes the ease with which a consumer gains initial access to the product or service. The third factor ‘ownership’ entails whether or not the consumer has access over ownership. ‘Cost’ in terms of time, effort and money needed is defined as the fourth factor. The fifth group is ‘environmental impact’. This includes the (lack of) indication or mention of the environmental impacts as a result of the consumers choice of the company’s product or service. Next, the ‘brand image’ associated with the sustainable product or service can also serve as a motivating or barrier factor. Further, the ‘quality’ category entails the influence of how well the product or service performs on the loyalty and confidence of the consumer. The ‘customer service’ factor highlights the importance of the dimension of encouragement to establish good customer service credentials. Next, the extent of ‘warranty’ can increase the importance of the good and the willingness of the consumer to maintain it. Finally, ‘peer testimonials’ provide social proof of trust by peers. The credibility of the brand can be reinforced by reviews and celebrity endorsements. Circular businesses can play with some of these factors in order to influence the legitimization process.

Two models for influencing consumer behavior, and thus for addressing these factors, can be proposed from circular economy and sustainability literature (Chamberlin & Boks, 2018). On the one hand extrinsic factors like cost and warranties can be dealt with by hedonic dimensions. These dimensions are associated with certain sensations derived from a customer's experience with a certain brand (Voss et al., 2003). Examples are: reward systems, encouragement, tempering of feelings of guilt, intrusiveness and importance (Chamberlin & Boks, 2018). On the other hand, intrinsic factors such as brand image, environmental impact, performance and disgust are addressed by eudaimonic dimensions. These are related to well-being viewed as the development of personal strengths, having a moral excellence in character, and contributing to the greater good (McMahan & Renken, 2011). Empathy and emotional engagement are all examples of this type of dimensions (Chamberlin & Boks, 2018). A good social media strategy should combine all of these in order to influence the consumer behavior regarding circular business models.

For example, social media posts with the goal of motivating consumers to mitigate food waste may focus on the following elements relating to the factors mentioned above: environmental awareness and ecological benefits (environmental impact), difference between ‘best before’ and ‘use by’ dates on food items (convenience), increased valorization of social norms that reject waste (peer testimonials), creating feelings of guilt related to wasting food (emotional engagement) (de Souza et al., 2021).

Companies can make use of different strategies to try to achieve soft legitimization using social media. For example, they might make use of promotions. Data gathered on social media can be used to distinguish ‘fans’ from other customers (Saravanakumar & SuganthaLakshmi, 2012). Fans are customers that are already engaged with and loyal to the brand. Hence, providing special promotions restricted to the used social media platform and sneak peaks of upcoming products can incentivize these customers to invite other friends to ‘like’ or ‘follow’ a brand. In this manner both existing customers and new customers are engaged.

Next, firms can demonstrate their compliance with circular economy principles to their customers on all channels (Urbinati et al., 2017). This is called brand positioning, more

specifically it is the process of creating an immediate association consumers make when thinking of your firm compared to competitors (Latiff & Safiee, 2015). Firms can do this by creating awareness about the educational, ethical and economic value of their product through extensive communication of their adoption of circular economy principles (Urbinati et al., 2017).

Another strategy companies can adopt is using influencers to promote a product or service as an interesting alternative for traditional online advertising. Consumers perceive influencers and their lifestyle as more authentic and attractive than the traditional forms of advertising (Gazzola et al., 2020). Influencers seem close to the consumers and not forced to campaign. A good influencer is defined by the number of followers and the ease of gaining new ones in a given period of time, but above all the essential ability to involve them. This customer engagement exists in the form of inviting them to leave comments, opinions, and likes (Gazzola et al., 2020).

Further, brands can entice customers to participate in shaping an offer or strategy (Saravanakumar & SuganthaLakshmi, 2012). A promotion could be only activated if enough people like or react on it. Another application of crowd sourcing is collecting knowledge or ideas from the crowd like asking customers to send in new design for the logo or asking for feedback on a certain change.

A final example of the use of social media is games. Games are very successful on social media (Saravanakumar & SuganthaLakshmi, 2012). This creates the opportunity for businesses to collaborate with game producers. They can add special and unique codes to be used in the game on their product packaging for example. Or they could develop their own game. Of course many other options or strategies exist for businesses to try to influence the legitimation process by making use of social media. Table 4 gives an overview of the aforementioned examples.

Table 4

Overview examples social media strategies

Hedonic dimensions	Eudaimonic dimensions	Promotion	Brand positioning	Influencers	Entice participation	Games
Address extrinsic barriers	Address intrinsic barriers	Restricted to the use of social media platform	Create awareness	More authentic and attractive	Participate in shaping an offer or strategy	Collaboration with game producers
Example: create feelings of guilt related to food waste	Example: focus on environmental awareness	Engagement of existing and new customers	Communication of adoption of circular economy principles	Seem not forced	Example: asking for feedback	Example: add codes for game on packaging

One can see that there are countless strategies for businesses to adopt. However, it is unclear which strategies aid in reaching legitimacy. Hence, the goal of this study is to address this

research gap by investigating how firms legitimize their circular business models through social media and to which extent these strategies affect their legitimacy.

2. Multiple case study

2.1. Aim of the study and design

The purpose of this study is to identify which social media strategies firms can use to legitimize their circular business model and to which extent these strategies affect their legitimacy. Remember that implementing a circular business creates a need of intensive communication between the firm and its market, i.e. a high engagement, to ensure its success (Biloslavo et al., 2020). Hence the importance of legitimation for circular businesses is clear. Nevertheless, there is a research gap in the use of social media for circular businesses. Current research focuses on the different social media strategies that can be applied in general by any type of business, however often without any indication of the impact on legitimacy. Other research covers social media legitimation strategies used by governments to legitimize their actions or policies. There is also research on how companies can legitimize their lack of commitment to sustainability. This study aims to contribute to research on soft legitimation strategies for circular businesses via social media by investigating strategies and their impact on legitimacy in practice. Concretely the research question is: “How can firms use social media to legitimize their circular business model and to what extent does this impact the achieved legitimacy?”.

The multiple case study method was selected for this study for various reasons. First, the aim of the study is to understand differences and similarities between the cases and in this manner discover which strategies can achieve legitimacy for circular businesses (Gustafsson, 2017). Second, theory development and a more comprehensive exploration of research questions are possible in multiple case research (Heale & Twycross, 2018). Third, because the goal is to identify strategies such that other firms can apply them to achieve legitimacy as well, the transferability inherent to case study research is important (Schoch, 2020). Moreover, this type of research is fitting for more in depth research, which translates into questions such as “how” or “why” (Verleye, 2019). Next, the study focuses on real life on which you have no control as researcher, and to develop valid theory this close connection with the real world is needed (Verleye, 2019). Additionally, the research objective is to identify causal relationships between social media strategies and legitimacy, hence an explanatory case study is appropriate (Fisher & Ziviani, 2004). Therefore, in order to discover the strategies used to promote and legitimize firms with a circular business model, 28 firms are studied.

2.2. Case selection

Because case studies are inherently non generalizable to the population, purposive sampling is preferred over random sampling (Verleye, 2019). Hence, purposive sampling is chosen as sampling method to enhance the depth of understanding (Campbell et al., 2020). The firms are selected based on following criteria: active in the food industry, B2C, circularity principles, product/ service is not a mobile app, use of Facebook and/or Instagram and active on social media during the period 01/01/2022-01/01/2023. The following paragraphs elaborate on the selection criteria.

Only firms in the food industry are considered, to be able to better compare findings and narrow the scope. The food industry is chosen because it is one of the largest industries on the planet (Otles et al., 2015). Moreover, food security is constantly threatened by scarcity of natural resources, population growth, climate change, food loss and waste (Otles et al.,

2015). So while demand for food supply keeps growing, production gets restricted. Therefore, to find the balance between rising demand and sustainable supply a change toward circular business models in the food industry is needed. However, not only this balance highlights the importance of circularity in food. About a third of global greenhouse gas emissions is produced in the food system i.e. everything from production to consumption of food including processing, transport and packaging (Crippa et al., 2021). This demonstrates the importance of changing the food industry in order to achieve a more circular economy. Finally, a personal interest in food influenced the decision to focus solely on this industry as well. Because of the importance of keeping up with the rising demand for food supply, I exclude firms that do not offer a service or end product within the food industry (e.g. businesses that transform food waste into nutritious soil).

Next, there are differences in B2B and B2C relationships (Kolís & Jirinova, 2013). Research shows that B2C companies make significantly more use of social media and internet monitoring to inquire about customer satisfaction (Kolís & Jirinova, 2013). Hence, it could be expected that there will be differences in the use and effect of social media as a legitimization tool as well. Further, more than 70% of adults, and thus potential end customers, use social media sites (Auxier & Anderson, 2021). Therefore, the selection includes only B2C firms to analyze the impact on the end consumer.

Additionally, many firms integrate various circular economy principles, however only really showcase one. The sampling was done as such to reflect the variety of these circular economy principles between firms. However, during the case selection, four broad categories of circular principles became clear: (1) focus on sustainable packaging, (2) green production, (3) upcycling food waste into other food products and (4) selling or reselling unwanted food. In line with idea that iteration is characteristic to qualitative research, this constatation led to the specification of the selection criterium (Srivastava & Hopwood, 2009). Therefore, the sampling procedure was altered towards stratified purposive sampling. This means that of each category a fixed number of companies is selected (Campbell et al., 2020). The selection includes a sample of seven firms per category (see Table 5).

Next, mobile apps themselves already offer a platform for consumer interaction and engagement and marketing purposes (Stocchi et al., 2022). Therefore, there might be a difference in use of social media compared to businesses that offer a product or service. Thus, firms that consist of mobile apps like ‘Too Good To Go’ are not selected.

Further, the study focuses on Facebook and Instagram since these are commonly used by businesses. Moreover, research shows that these platforms are in the top 3 of most used social media channels by adults (Auxier & Anderson, 2021).

Finally, the time frame of this research is 01/01/2022 - 01/01/2023. In this manner, the current situation of social media is reflected, because the social media landscape is constantly changing (Appel et al., 2020).

The ‘Circular directory’, ‘Ellen Macarthur foundation’ and the list of good practices on the ‘European Circular Economy Stakeholder Platform’ served as a starting point for the selection. Further research was done via the search engine Google, to complete the selection with firms with diverse focus on circular principles. In this way the population of circular

firms in the food industry that meet the selection criteria is well represented. Table 6 shows the selected firms with a short description of their core business. Table 7, Table 8,

Table 9 and Table 10 demonstrate different ways to categorize these firms in order to generate more insight into external factors that might have an effect on the achieved legitimacy, besides the chosen strategies.

Table 5

Firms per type of main circularity principle

Sustainable packaging (compostable, reusable, ...)	Green production (organic, renewable energy,...)
- Pieter Pot - Alara - kencko - Dizzie - Grind - Hopvrac - Oato	- Black Isle Brewery - Island Bakery - Gotham Greens - Oé - Ekofungi - Löfbergs - Piccolo
Upcycle food waste into other food products	(Re)sell unwanted food (ugly fruit, almost expired products, ...)
- Barnana - DASH Water - Spudsy - Misadventure Vodka - Renewal Mill - nibs etc. - Toast Ale	- Imperfect Foods - Goodafter - Fruta Feia - Sirplus - Misfits Market - Approved Food - Greenprice

Table 6

List of firms and description

Firm	Description
Pieter Pot	Packaging-free online supermarket (containers with a deposit)
Alara	Organic cereal in compostable packaging
Black Isle Brewery	Organic beers in aluminum cans
Island Bakery	Organic biscuits made with local sources of renewable energy
Barnana	Organic snacks from otherwise wasted bananas
Kencko	Just-add-water mixes of freeze-dried fruit/vegetable powders in fully compostable packets
DASH Water	Fruit infused water from wonky fruit

Dizzie	Packaging-free food (online and retailers)
Gotham Greens	Local and sustainable greens
Grind	Home compostable Nespresso pods
Hopvrac	Packaging-free online supermarket (free use of containers)
Imperfect Foods	Online supermarket for food with cosmetic quirks and other sustainable food
Spudsy	Snacks from upcycled sweet potatoes
Misadventure & Co	Vodka made from excess baked goods
Renewal Mill	Superfood ingredients and pantry staples from byproducts from food manufacturing
nibs etc.	Nutritious upcycled snacks from high fiber and protein industry byproducts that normally get thrown away
Oato	Oat drink in reusable bottles delivered at home
Oé	Bio wines produced without any pesticides
Ekofungi	Dehydrated vegetables and mushrooms farmed by using waste
Toast Ale	Beer from surplus bread
Löfbergs	Sustainable coffee
Goodafter	Online supermarket for products that near or have passed the end of the preferred consumption period
Fruta Feia	Sell ugly fruits and vegetables at pickup points after online order
Sirplus	Online supermarket for rescued food
Misfits Market	Online supermarket for rescued food
Approved Food	Online supermarket for products that near or have passed the end of the preferred consumption period
GreenPrice	Retailer short dated goods
Piccolo	Organic baby food

Table 7*Firms categorized by country of origin*

Country of origin	Firm
The Netherlands	Pieter Pot
The UK	Alara
	Black Isle Brewery
	Island Bakery
	DASH Water
	Dizzie
	Grind
	nibs etc.
	Oato
	Toast Ale
	Approved Food
	Piccolo
USA	Barnana
	kencko
	Gotham Greens
	Imperfect Foods
	Spudsy
	Misadventure & Co
	Renewal Mill
	Misfits Market
Switzerland	Hopvrac
France	Oé
Serbia	Ekofungi
Sweden	Löfbergs
Portugal	GoodAfter
	Fruta Feia
Germany	Sirplus
China	GreenPrice

Table 8*Firms categorized by age*

Young	Adult	Old
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Pieter Pot, 2019 (Pieter Pot, n.d.-b)	Barnana, 2012 (Barnana, n.d.-a)	Alara, 1975 (Alara Wholefoods, n.d.)
DASH Water, 2017 (Wright, n.d.)	kencko, 2016 (Froes, n.d.)	Black Isle Brewery, 1998 (Black Isle Brewery Co, n.d.-a)
Dizzie, 2017 (Patten, n.d.)	Gotham Greens, 2009 (Gotham Greens, n.d.-a)	Island Bakery, 2001 (Island Bakery, n.d.-a)
Hopvrac, 2020 (Hopvrac, n.d.-a)	Grind, 2011 (Grind, n.d.-a)	Ekofungi, 2001 (Ekofungi, n.d.-a)
Spudsy, 2018 (Spudsy, n.d.-a)	Imperfect Foods, 2015 (Imperfect Foods, n.d.-a)	Löfbergs, 1906 (Löfbergs, n.d.-a)
nibs etc., 2018 (nibs etc Ltd, n.d.)	Misdaventure & Co, 2015 (Misadventure & Co, n.d.)	
Oato, 2019 (The Modern Milkman, n.d.)	Renewal Mill, 2016 (Renewal Mill, n.d.)	
Sirplus, 2017 (Sirplus, n.d.-b)	Oé, 2015 (Oé, n.d.)	
Misfits Market, 2018 (Ramesh, n.d.)	Toast Ale, 2015 (Toast Ale, n.d.-b)	
	GoodAfter, 2015 (Camps de Gispert, n.d.)	
	Fruta Feia, 2013 (Fruta Feia, n.d.-a)	
	Approved Food, 2009 (Approved Food, n.d.)	
	GreenPrice, 2016 (GreenPrice, n.d.-a)	
	Piccolo, 2016 (Piccolo, n.d.)	

Table 9*Firms categorized by type of product/ service*

Type of product/service	Firm
Snacks	Island Bakery
	Barnana
	Spudsy
	Renewal Mill
Alcoholic beverages	Black Isle Brewery
	Misadventure & Co
	Oé
	Toast Ale
Other beverages	kencko
	DASH Water
	Grind
	Oato
	Löfbergs
Supermarket	Pieter Pot
	Dizzie
	Hopvrac
	Imperfect Foods
	GoodAfter
	Sirplus
	Misfits Market
	Approved Food
	GreenPrice
	Alara
Cereal	nibs etc.
Babyfood	Piccolo
Dehydrated mushrooms	Ekofungi
Fresh fruit and vegetables	Gotham Greens
	Fruta Feia

Table 10*Firms categorized by firm size (based on OECD (2023))*

Firm size	Firm
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Micro (<10 employees)	Hopvrac (Hopvrac, n.d.-b)
	Spudsy (Spudsy, n.d.-b)
	Misadventure & Co (Misadventure & Co, n.d.)
	Renewal Mill (Renewal Mill, n.d.)
	nibs etc. (nibs etc Ltd, n.d.)
	Oé (Oé, n.d.)
	Toast Ale (Toast Ale, n.d.-a)
	Fruta Feia (Fruta Feia, n.d.-b)
Small (10-50 employees)	Black Isle Brewery (Black Isle Brewery Co, n.d.-b)
	Island Bakery (Island Bakery, n.d.-b)
	Barnana (Barnana, n.d.-b)
	DASH Water (DASH Water, n.d.)
	Dizzie (Dizzie, n.d.)
	Oato (Oato, n.d.)
	Ekofungi (Ekofungi, n.d.-b)
	GoodAfter (The Portugal News, 2020)
Medium (51-200 employees)	Approved Food (glassdoor, n.d.)
	Piccolo (Piccolo, n.d.)
	Pieter Pot (Pieter Pot, n.d.-a)
	Alara (Smith, n.d.)
	kencko (kencko, n.d.)
	Sirplus (Sirplus, n.d.-a)
	GreenPrice (GreenPrice, n.d.-b)
	Gotham Greens (Gotham Greens, n.d.-b)
Large (>200 employees)	Grind (Grind, n.d.-b)
	Imperfect Foods (Imperfect Foods, n.d.-b)
	Löfbergs (Löfbergs, n.d.-b)
	Misfits Market (Misfits Market, n.d.)

2.3. Data and analysis

For this research data was gathered from social media channels Facebook and Instagram used by the selected firms. Only the posts generated on these social media channels during the period 01/01/2022-01/01/2023 were included in this research. The posts consist of text, video, images, links or a combination thereof. First, the specific content of the posts is studied. Besides the posts on social media, the social media bio is also investigated. Second, the firm's own webpages were used as data sources as well. Specifically they were used to investigate how the firms position themselves on their webpage, to get a description of the firms activities and to gather the number of social media channels used. All these nominal data, except the firms' descriptions, give insight into which social media strategies firms employ. Further, the tool Popsters (<https://popsters.com/>) facilitates the analysis and collects quantitative data. For all companies various data are collected: number of likes, comments, followers, shares, frequency of posting, explicit reference to circularity/sustainability or derivatives thereof, hashtags including circularity/sustainability or derivatives thereof, the extensiveness of the text, their positioning, type of content and engagement rate. This engagement rate measures the degree of engagement and is calculated by dividing the total of interactions (likes, shares, comments) by the number of followers (Popsters, 2022). This quantitative data provides metrics to measure the firms' achieved legitimacy and further insights into the social media strategies used. In this manner, insights can be gathered about which social media strategies result in high legitimacy of a firm. The quantitative data gathered through Popsters and the firms' webpages is summarized in Figure 9 (see appendix). Finally, following sources provide secondary data on the topic 'How to increase engagement on social media' (see Table 11). This data is used to help categorize and interpret the collected quantitative and nominal data.

Table 11

Secondary data sources

Source	Description data
https://blog.hootsuite.com/increase-facebook-engagement/ (McLachlan & Newberry, 2021)	Suggestions for firms on how to increase number of likes, comments and shares on Facebook
https://sproutsocial.com/insights/facebook-engagement/ (Barnhart, 2019)	Suggestions for firms on how to increase engagement on Facebook
https://databox.com/facebook-engagement-tips (Malnik, 2021)	Definition engagement in terms of shares, comments, clicks, follows and likes and how to increase it on Facebook
https://sproutsocial.com/insights/instagram-engagement/ (Zote, 2023)	Definition engagement in terms of likes, comments, saves and shares, how to calculate it and how to increase it on Instagram
https://blog.hootsuite.com/instagram-engagement/ (Newberry, 2022)	Definition engagement in terms of likes, comments, saves and shares, how to calculate it and how to increase it on Instagram and what is a good engagement rate

https://www.brandwatch.com/blog/tips-increase-instagram-engagement/ (Brandwatch, 2022)	Tips to improve Instagram strategy and to increase engagement (measured by likes, shares, and comments from consumers)
https://nealschaffer.com/types-social-media-content/ (Koshy, 2023)	Which types of content to use to bring the most value to a firm in terms of increased engagement, likes, shares and followers

Initially, the cases were individually studied and information was gathered case by case. This within-case analysis helped provide a clear overview of the content of the social media pages of each company.

Next, the information was compared across the cases. In this step of the data analysis I applied inductive coding. Hence, the data is used as a source of ideas and labels to make the codes (Locke et al., 2022). Concretely, this means that the data is categorized by examining and comparing it repeatedly (Chandra & Shang, 2019). This allows the theory to emerge from the data, rather than the other way around. The secondary data was used to more effectively apply inductive coding (Martins et al., 2018).

Firstly, each firm is analyzed in different areas to measure the level of achieved legitimacy. Remember that a firm gains legitimacy when the social values linked to the firm's activities and the standard of acceptable behavior in society are in harmony (Rendtorff, 2019). As mentioned before, literature proposes various metrics to measure legitimacy using social media: the number of followers, likes, shares, comments, the valence of comments and social media engagement rate. I combined these factors to represent the legitimacy achieved by firms. Concretely, the achieved legitimacy is defined by the average number of likes, comments and engagement rate per post, the number of followers, the maximum engagement rate and the valence of the comments. Besides the average engagement rate over all posts, I also specified the maximum engagement rate as a metric from the idea that they must be doing something right if they are able to achieve a very high engagement at some point. Further, the valence of the comments expresses to which extent the content of the comments contains a positive or negative tone. For Facebook the aforementioned criteria are complemented with the average number of shares per post. These data were not available for Instagram. By measuring the legitimacy achieved by each firm, I was able to link certain social media strategies to a high or low achieved legitimacy in a later stage.

Figure 1 shows an overview of the different metrics with their corresponding values per firm. 'Achieved legitimacy' indicates whether the factors reflect a low, medium or high level of legitimacy achieved by the firm, in this manner the corresponding strategies can be investigated in a later stage. Given that legitimation is inherently a process, a firm's achieved legitimacy is not black and white. Hence, to accommodate this 'grey zone' I added 'medium' as a level of achieved legitimacy. The achieved legitimacy is determined both for Facebook and Instagram, if possible. For each channel the same color coding system is applied to be able to visually identify how a firm scores on the metrics. Red, orange and green indicate a bad, average and good score for a metric. These decisions are made within its channel, given that it quickly became clear while analyzing the cases that significant differences between Instagram and Facebook can occur. As an example of this system, Grind has a good score for 'Followers insta', 'Avg likes insta' and 'Avg comments insta', a bad score for 'Avg ER insta' and an average score for 'Max ER insta'. The factor 'Valence

comments' does not make use of this color coding system because its value needs to be taken into account combined with the average number of comments when deciding on the final level of achieved legitimacy. Concretely, if the average number of comments is high, but they are primarily negative and thus not reflecting legitimacy, this is more indicative of a lower value of achieved legitimacy rather than a higher one. The valence is taken into account to avoid a large amount of negative comments being considered as contributive to a high achieved legitimacy.

Some further clarification is needed for the Valence comments factor. Low valence means that the comments generally have a negative tone whereas positive comments are considered high valence. However, not every non-negative comment reflects the same level of positivity. For example, positive comments that reflect a high engagement in terms of effort (e.g. commenting ideas for a new workshop) versus lower effort comments (e.g. tagging someone with the goal of winning something). Therefore, the medium valence category is added to accommodate this difference. Table 12 demonstrates the coding of valence with several concrete examples as evidence.

Finally, each firm was given a final value of achieved legitimacy per social media platform, based on the overall color coding and valence of the comments. In this manner, I was able to develop different categories determined by the levels of achieved legitimacy. Firms that scored generally low on both channels were called the 'Nillies' and firms that scored generally low on one channel but medium on the other were called the 'Not So Nillies'. Several companies scored remarkably high on one channel, but low on the other. They are categorized as 'Instafamous' and 'Facebookfamous'. Further, some organizations scored generally well on both channels, but still have room for improvement. These are called the 'Rising stars'. Finally, the 'Superstars' achieved a high legitimacy through both channels and were thus considered the best firms (in terms of achieved legitimacy). This categorization (see Table 13) allows for better comprehensibility of the results.

itimacy metrics color coded

y	Firms							Achieved legitimacy						
		Followers insta	Avg likes insta	Avg comments insta	Avg ER insta	Max ER insta	Valence comments		Shares fb	Followers fb	Avg likes fb	Avg comments fb	Avg ER fb	Valence comments
	Pieter Pot	55972	372,66	20,69	0,70%	8,68%	High	High	815	24730	75,23	13,00	0,34%	0,34%
	Alara	2901	12,00	4,24	0,56%	6,63%	Medium	Low	7	19556	1,25	0,19	0,01%	0,01%
	Black Isle Brewery	9610	81,22	2,65	0,96%	4,59%	High	Medium	177	14471	38,94	3,36	0,31%	0,31%
	Island Bakery	3937	93,11	6,04	2,43%	7,23%	High	Medium	113	5415	46,80	5,31	1,01%	1,01%
	Barnana	52134	113,94	57,74	0,32%	3,96%	Medium	Medium	64	32064	9,67	6,01	0,03%	0,03%
	kencko	155806	209,13	23,73	0,15%	1,45%	Medium	Medium	129	44746	16,40	8,73	0,04%	0,04%
	Dash water	58178	240,50	200,10	0,71%	11,54%	Medium	Low	33	9811	9,91	3,40	0,11%	0,11%
	Dizzie	15524	53,84	9,52	0,41%	4,45%	Medium	Low	73	9963	3,46	0,65	0,03%	0,03%
	Gotham Greens	69390	213,86	7,26	0,31%	2,35%	Medium	Medium	78	255734	26,73	1,51	0,01%	0,01%
	Grind	206867	607,20	195,41	0,39%	5,16%	Medium	Medium	7	7289	15,50	3,17	0,21%	0,21%
	Hopvrac	1794	36,75	1,61	2,14%	5,70%	High	Medium	133	1275	11,28	0,41	1,00%	1,00%
	Imperfect Foods	462859	1170,36	64,04	0,27%	4,49%	Medium	High	1102	352907	61,72	7,33	0,01%	0,01%
	Spudsy	36710	42,15	23,69	0,18%	5,44%	Medium	Medium	43	2288	5,72	1,01	0,31%	0,31%
	Misadventure & Co	6211	82,74	4,08	1,39%	6,41%	High	Low	29	2324	5,36	0,49	0,24%	0,24%
	Renewal Mill	10612	63,73	34,19	0,91%	12,32%	Medium	Low	7	585	2,03	0,24	0,41%	0,41%
	nibs etc.	4331	40,78	10,59	1,10%	6,28%	Medium	Low	0	512	1,17	0,47	0,31%	0,31%
	Oato	4355	11,60	0,54	0,27%	1,38%	High	Low	173	3239	5,14	0,42	0,24%	0,24%
	Oé	15639	91,34	27,29	0,76%	18,39%	Medium	Low	91	11063	6,78	0,16	0,03%	0,03%
	Ekofungi	1944	19,17	1,83	1,04%	1,39%	Medium	Low	9	1233	7,67	0,83	0,81%	0,81%
	Toast Ale	21429	67,30	23,15	0,42%	6,16%	Medium	Low	80	6150	6,90	0,76	0,14%	0,14%
	Löfbergs	10965	101,24	10,51	1,04%	11,10%	High	Medium	102	55034	56,10	7,00	0,11%	0,11%
	Goodafter	15917	51,41	2,03	0,34%	1,61%	Medium	Low	50	45478	3,86	0,29	0,01%	0,01%
	Fruta Feia	23245	786,00	18,56	3,26%	8,06%	High	High	746	65355	263,45	17,91	0,53%	0,53%
	Sirplus	63728	320,10	37,99	0,55%	6,37%	Medium	Medium	245	31675	16,58	6,00	0,08%	0,08%
	Misfits Market	489717	789,98	36,85	0,17%	2,11%	Medium	High	2645	366918	60,23	39,72	0,03%	0,03%
	Approved Food	-	-	-	-	-	-	High	521	121502	88,15	264,77	0,31%	0,31%
	GreenPrice	10305	54,84	2,42	0,55%	1,93%	Medium	High	329	26819	74,87	9,92	0,31%	0,31%
	Piccolo	61962	153,76	312,76	0,75%	9,77%	Medium	Medium	91	36647	7,30	6,83	0,04%	0,04%

Left panel displays the legitimization factors per firm for Instagram, on the right the same is depicted for Facebook (with the additional factor: ‘Shares’ included).

Table 12

Coding valence comments examples

Valence comments	Examples
Low	“I'm all for re-branding but would love to know why the name, colour and logo were chosen. Red is aggressive, the logo comical and doesn't link to what you do, nor does the name... I miss your old look, in my opinion this looks cheap and childish.” “Order arrived today. Not impressed to say the least. I ordered 87 sachets of dog food. 47 arrived. No dispatch note with order. Can you please advise whether you will be issuing me a refund or sending the rest of my order asap please as I have paid for it?”
Medium	People tagged to win something e.g. “@firstname.lastname ❤️”; Comment favorite lunch to win e.g. “Love a big ol Greek salad pretty much any time of year, or a caesar salad+ (veg) 😊”; “Omggggg! 🍕”
High	“You are such a hero! An example to many people! Good luck!!! You will figure this out!”; Comment stories of meeting a team member that will retire e.g. “We were there November and Christine made our visit so special. What a lovely person! We wanted to stay and have tea (or an IPA) with her. Happy retirement! We will miss you on our next visit.”; “Many congratulations that you always continue with this strength and courage because it is good for farmers and for those who receive the products kisses 😘😘😘😘”

Table 13

Coding achieved legitimacy type

Achieved legitimacy type	Firm	Achieved legitimacy value Figure 1
Nillies	Alara	Low fb, low insta
	Oato	Low fb, low insta
	Ekofungi	Low fb, low insta
	Goodafter	Low fb, low insta
Not So Nillies	Misadventure & Co	Low fb, medium insta
	nibs etc.	Low fb, medium insta
	Oé	Low fb, medium insta
	Toast Ale	Low fb, medium insta
	Dizzie	Low fb, medium insta
	Gotham Greens	Medium fb, low insta
	Approved Food	Medium fb, low insta
Instafamous	DASH Water	Low fb, high insta

	Renewal Mill	Low fb, high insta
Facebookfamous	GreenPrice	High fb, low insta
Rising Stars	Black Isle Brewery	Medium fb, medium insta
	Island Bakery	Medium fb, medium insta
	Barnana	Medium fb, medium insta
	kencko	Medium fb, medium insta
	Hopvrac	Medium fb, medium insta
	Spudsy	Medium fb, medium insta
	Löfbergs	Medium fb, medium insta
	Grind	Medium fb, medium insta
	Sirplus	Medium fb, medium insta
	Misfits Market	High fb, medium insta
Super Stars	Pieter Pot	High fb, high insta
	Imperfect Foods	High fb, high insta
	Fruta Feia	High fb, high insta
	Piccolo	High fb, high insta

Next, each firm was categorized based on their positioning through different means: the firm's website, social media bio, posts themselves (excluding hashtags) and hashtags. Remember that brand positioning is the process of creating an immediate association consumers make when thinking of your firm compared to competitors, and can be done through extensive communication of their adoption of circular economy principles (Latiff & Safiee, 2015; Urbinati et al., 2017). I categorized this positioning as either foreground or background sustainable/circular. The former meaning that they referred literally to sustainability/ circularity or derivatives thereof e.g. 'We strive for a sustainable future.'. The latter meaning that the terms are not literally used, but the positioning can still reflect a similar message e.g. 'We want to eliminate all food waste and strive for a better planet.'. This was done to explore whether an explicit positioning as a circular or sustainable company through one or multiple of these means, is an appropriate strategy to achieve legitimacy. Table 14 shows these positionings through the various means and Table 15 summarizes the type of positioning used through each mean for every firm.

Table 14

Coding types of positioning through different means

Type of positioning	Means	Examples
Foreground circularity/sustainability	Website	“Living sustainably, with no fuss” (Pieter Pot), “We want to create a circular economy that produces no waste and that values the producers of our regions” (Hopvrac), “We help Oé winegrowers to complete their sustainable viticulture approach and support them to carry out their projects.” (Oé)
	Social media bio	“Alara is at the forefront of the move to a Sustainable Food Future!” (Alara), “🍷 Award-winning sustainably brewed beers 🍞 Made using surplus bakery bread” (Toast Ale), “At Piccolo, giving back and sustainable sourcing are core values of the business.” (Piccolo)
	Posts	Total number of literal references to circularity/sustainability over number of posts, expressed as a percentage: 60% (Alara), 21% (Pieter Pot), 22% (Misadventure & Co)
	Hashtags	Total number of hashtags referring to circularity/sustainability over number of posts, expressed as a percentage: 239% (Alara), 27% (Dizzie), 92% (Ekofungi)
Background circularity/sustainability	Website	“Save the planet drink organic” (Black Isle Brewery), “In addition to transferring to the consumer the possibility of purchasing quality products and high savings, GoodAfter.com is a manifestly "green" solution, in that it makes it possible to reduce food waste and the waste and pollution related to its disposal.” (GoodAfter), “Waste less, save more” (Approved Food)
	Social media bio	“Together we make packaging-free the norm. ❤️ Save packaging waste and CO2” (Pieter Pot), “Small, wholesome batches of organic biscuits made using local woodchip power and hydro-electricity” (Island Bakery), “Upcycled ingredients & plant-based treats! 🌱 Fighting climate change w/ cookies 🍪” (Renewal Mill)
	Posts	Total number of literal references to circularity/sustainability over number of posts, expressed as a percentage: 4% (Black Isle Brewery), 3% (Island Bakery), 4% (Barnana)
	Hashtags	Total number of hashtags referring to circularity/sustainability over number of posts,

expressed as a percentage: 7% (Pieter Pot), 0% (Island Bakery), 0% (kencko)

Table 15

Positioning firms per means

Firm	Website	Social media bio	Posts	Hashtags
Pieter Pot	Foreground	Background	Foreground	Background
Alara	Foreground	Foreground	Foreground	Foreground
Black Isle Brewery	Background	Background	Background	Background
Island Bakery	Foreground	Background	Background	Background
Barnana	Foreground	Foreground	Background	Background
Kencko	Foreground	Background	Background	Background
DASH Water	Foreground	Background	Background	Background
Dizzie	Foreground	Background	Background	Foreground
Gotham Greens	Foreground	Background	Background	Background
Grind	Foreground	Background	Background	Background
Hopvrac	Foreground	Background	Background	Background
Imperfect Foods	Foreground	Background	Background	Background
Spudsy	Foreground	Background	Background	Background
Misadventure & Co	Foreground	Background	Foreground	Foreground
Renewal Mill	Foreground	Background	Foreground	Foreground
nibs etc.	Foreground	Background	Background	Background
Oato	Foreground	Background	Background	Foreground
Oé	Foreground	Background	Background	Background
Ekofungi	Foreground	Foreground	Foreground	Foreground
Toast Ale	Background	Foreground	Foreground	Foreground
Löfbergs	Foreground	Background	Background	Background
Goodafter	Background	Background	Foreground	Foreground
Fruta Feia	Background	Background	Background	Background
Sirplus	Foreground	Background	Background	Background
Misfits Market	Foreground	Foreground	Background	Background
Approved Food	Background	Background	Background	Background
GreenPrice	Foreground	Background	Background	Background
Piccolo	Foreground	Background	Background	Background

Further, each firm was examined based on social media presence. This reflects how many social media channels were actively used during the studied period. The social media

presence is a strategic choice of the firm. Firms using a small, average and large number of different channels were respectively called social media citizens, social media discoverers and social media conquerors. Table 16 displays this coding and the number of channels used per firm.

Table 16

Coding social media presence

Social media presence	Firm	Evidence
Social media citizen	Pieter Pot	Active on 2 channels during studied period
	Alara	Active on 2 channels during studied period
	Spudsy	Active on 2 channels during studied period
	Ekofungi	Active on 2 channels during studied period
	Goodafter	Active on 2 channels during studied period
	Approved Food	Active on 2 channels during studied period
Social media discoverer	Black Isle Brewery	Active on 4 channels during studied period
	Island Bakery	Active on 3 channels during studied period
	Barnana	Active on 4 channels during studied period
	kencko	Active on 3 channels during studied period
	DASH Water	Active on 3 channels during studied period
	Dizzie	Active on 3 channels during studied period
	Gotham Greens	Active on 4 channels during studied period
	Grind	Active on 4 channels during studied period
	Hopvrac	Active on 3 channels during studied period
	Misadventure & Co	Active on 3 channels during studied period
	Renewal Mill	Active on 4 channels during studied period
	nibs etc.	Active on 4 channels during studied period
	Oato	Active on 4 channels during studied period
	Toast Ale	Active on 4 channels during studied period
	Fruta Feia	Active on 4 channels during studied period
	Green Price	Active on 3 channels during studied period
	Piccolo	Active on 3 channels during studied period
Social media conqueror	Imperfect Foods	Active on 5 channels during studied period
	Oé	Active on 5 channels during studied period
	Löfbergs	Active on 5 channels during studied period
	Sirplus	Active on 5 channels during studied period

Misfits Market	Active on 6 channels during studied period
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Then, I coded the organizations based on their posting frequency. On the one hand the average number of posts per week was used to create five groups. As none of the companies started their social media page during the considered period, this is the total number of posts divided by the number of days considered (366) times 7 to express this in terms of weeks. The first category contains the single focused semi-frequent posters. This means that they did not post often on one channel, but on the other they posted from time to time (i.e. semi-frequently). Second, some firms posted very frequently on one channel, but not at all on the other, hence the group single focus frequent. Some firms are not that active on social media at all, and are therefore called all around sporadic posters. Finally, the other firms can be categorized under all around semi-frequent or frequent posters because they keep up about the same frequency on both channels. On the other hand, some organizations published multiple posts per day, therefore I created the separate code: bombastic posters to capture these. Table 17 and Table 18 exhibit this analysis.

Table 17

Coding bombastic posters

Bombastic posters	Example
Alara	3 posts on 12/07, 6 posts on 11/05
Oato	2 posts 13/12, 2 posts 07/12, 2 posts 27/11, 2 posts 7/11
Ekofungi	2 posts 25/11, 3 posts 21/11
Misfits Market	2 posts 31/12, 2 posts 24/12, 2 posts 22/12, 2 posts 21/12, 2 posts 19/12

Table 18

Coding posting frequency

Frequency	Firm	Evidence
Single focus semi-frequent	DASH Water	Average number of posts per week: 2.10 and 0.67
	Dizzie	Average number of posts per week: 1.47 and 2.64
	Renewal Mill	Average number of posts per week: 2.33 and 0.73
Single focus frequent	kencko	Average number of posts per week: 3.50 and 1.89
	Gotham Greens	Average number of posts per week: 5.76 and 0.94
	Grind	Average number of posts per week: 4.69 and 0.11

All around sporadic	Island Bakery	Average number of posts per week: 0.52 and 0.94
	nibs etc.	Average number of posts per week: 1.11 and 1.01
	Ekofungi	Average number of posts per week: 0.11 and 0.11
	Löfbergs	Average number of posts per week: 1.30 and 0.78
	Goodafter	Average number of posts per week: 1.22 and 0.94
	Fruta Feia	Average number of posts per week: 0.17 and 0.21
	Approved Food	Average number of posts per week: 0 and 0.25
All around semi-frequent	Pieter Pot	Average number of posts per week: 2.73 and 2.70
	Alara	Average number of posts per week: 1.70 and 1.43
	Black Isle Brewery	Average number of posts per week: 1.70 and 1.80
	Hopvrac	Average number of posts per week: 2.41 and 2.49
	Misadventure & Co	Average number of posts per week: 2.96 and 3.02
	Toast Ale	Average number of posts per week: 3.08 and 1.97
	GreenPrice	Average number of posts per week: 1.63 and 1.86
	Piccolo	Average number of posts per week: 2.73 and 2.35
All around frequent	Barnana	Average number of posts per week: 4.46 and 2.77
	Imperfect Foods	Average number of posts per week: 5.66 and 3.35
	Spudsy	Average number of posts per week: 6.20 and 2.44
	Oato	Average number of posts per week: 4.44 and 4.40
	Oé	Average number of posts per week: 4.15 and 4.00
	Sirplus	Average number of posts per week: 4.57 and 3.31

Misfits Market	Average number of posts per week: 6.64 and 4.02
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Additionally, firms were separated into different groups based on the length of the text used in their posts (i.e. extensiveness posts). Popsters generated three categories, looking at the amount of symbols used, namely >160 symbols, 160-1000 symbols and <1000 symbols (Popsters, n.d.). These are called respectively short, medium and long. By looking at the number of posts per category, I decided whether they were generally concise, average or extensive (see Table 19). Table 20 displays which firms belong to which category. The full reasoning with evidence for each firm is demonstrated in Table 30 (see appendix).

Table 19

Coding extensiveness posts

Extensiveness posts	Example
Concise	Instagram posts: 231 short, 89 medium and 4 long; Facebook posts: 76 short, 48 medium and 4 long (Spudsy)
Average	Instagram posts: 4 short, 126 medium and 13 long; Facebook posts: 10 short, 117 medium and 14 long (Pieter Pot)
Extensive	Instagram posts: 14 short, 138 medium and 65 long; Facebook posts: 17 short, 139 medium and 53 long (Oé)

Table 20

Categorization firms based on extensiveness posts

Concise	Average	Extensive
Island Bakery	Pieter Pot	Renewal Mill
kencko	Alara	Oé
DASH Water	Black Isle Brewery	
Dizzie	Barnana	
Gotham Greens	Hopvrac	
Grind	Imperfect Foods	
Spudsy	Misadventure & Co	
nibs etc.	Oato	
Löfbergs	Ekofungi	
Goodafter	Toast Ale	
Misfits Market	Fruta Feia	
Piccolo	Sirplus	
	Approved Food	
	Green Price	

Next, Popsters generated the number of posts containing an image, a video or a link. Note that they can overlap. For example, a post could contain both a link and an image. I converted the numbers generated by Popsters into percentages by dividing them by the total number of posts. In this manner the percentage of posts containing an image, link or video became clear. In order to maintain the information of the different ways of representation, the coding was done for images, links and videos separately. The firms were graded as low, medium or high users of images, links or videos. Due to large differences between Instagram and Facebook for several organizations the coding looks at the values for both channels separately. An example clarifies this information. If a firm uses a lot of images on Instagram, but very few on Facebook this was categorized as ‘High insta low fb’. Table 21, Table 22 and Table 23 demonstrate this coding for the different types of representation with an example (for more details see Table 31, Table 32 and Table 33 in appendix). Table 24 displays the resulting categorization per firm.

Table 21

Coding image usage

Image usage	Example
Low insta low fb	63% of insta posts and 61% of fb posts contain an image (Pieter Pot)
Low insta medium fb	61% of insta posts and 80% of fb posts contain an image (Spudsy)
Low insta high fb	62% of insta posts and 100% of fb posts contain an image (DASH Water)
Medium insta low fb	75% of insta posts and 63% of fb posts contain an image (Löfbergs)
Medium insta medium fb	89% of insta posts and 80% of fb posts contain an image (Island Bakery)
Medium insta high fb	83% of insta posts and 90% of fb posts contain an image (Hopvrac)
High insta low fb	91% of insta posts and 41% of fb posts contain an image (Gotham Greens)
High insta high fb	93% of insta posts and 91% of fb posts contain an image (Alara)

Table 22

Coding link usage

Link usage	Example
Low insta low fb	0% of insta posts and 0% of fb posts contain a link (DASH Water)
Low insta medium fb	0% of insta posts and 21% of fb posts contain a link (Pieter Pot)

Low insta high fb	9% of insta posts and 65% of fb posts contain a link (Black Isle Brewery)
Medium insta low fb	14% of insta posts and 3% of fb posts contain a link (Renewal Mill)
Medium insta medium fb	22% of insta posts and 31% of fb posts a link (Alara)
High insta high fb	63% of insta posts, 62% of fb posts a link (Hopvrac)

Table 23

Coding video usage

Video usage	Example
Low insta low fb	7% of insta posts and 8% of fb posts contain a video (Alara)
Medium insta low fb	17% of insta posts and 3% of fb posts contain a video (Hopvrac)
Medium insta medium fb	25% of insta posts and 22% of fb posts contain a video (Löfbergs)
High insta low fb	47% of insta posts and 6% of fb posts contain a video (Barnana)
High insta medium fb	41% of insta posts and 16% of fb posts contain a video (kencko)
High insta high fb	37% of insta posts and 32% of fb posts contain a video (Pieter Pot)

Table 24

Categorization firms per form of representation

Firm	Image usage	Link usage	Video usage
Pieter Pot	Low insta low fb	Low insta medium fb	High insta high fb
Alara	High insta high fb	Medium insta medium fb	Low insta low fb
Spudsy	Low insta medium fb	Low insta low fb	High insta medium fb
Ekofungi	High insta high fb	Low insta low fb	Low insta low fb
Goodafter	Low insta high fb	Low insta low fb	High insta low fb
Approved Food	Low insta low fb	Low insta high fb	Low insta low fb
Black Isle Brewery	High insta high fb	Low insta high fb	Low insta low fb
Island Bakery	Medium insta medium fb	Low insta medium fb	Low insta low fb
Barnana	Low insta high fb	Low insta low fb	High insta low fb

kencko	Low insta medium fb	Low insta high fb	High insta medium fb
DASH Water	Low insta high fb	Low insta low fb	High insta low fb
Dizzie	Medium insta medium fb	Low insta medium fb	High insta medium fb
Gotham Greens	High insta low fb	Low insta high fb	Low insta low fb
Grind	Low insta medium fb	Low insta low fb	High insta medium fb
Hopvrac	Medium insta high fb	High insta high fb	Medium insta low fb
Misadventure & Co	Medium insta high fb	Low insta medium fb	Medium insta low fb
Renewal Mill	Medium insta medium fb	Medium insta low fb	Medium insta low fb
nibs etc.	Medium insta high fb	Low insta low fb	Medium insta low fb
Oato	High insta high fb	Low insta low fb	Low insta low fb
Toast Ale	Low insta medium fb	Low insta medium fb	High insta medium fb
Fruta Feia	Medium insta medium fb	Low insta medium fb	Low insta low fb
Green Price	High insta high fb	Medium insta medium fb	Low insta low fb
Piccolo	Medium insta medium fb	Low insta low fb	Medium insta medium fb
Imperfect Foods	Medium insta high fb	Low insta medium fb	Medium insta low fb
Oé	Medium insta high fb	Low insta medium fb	Medium insta low fb
Löfbergs	Medium insta low fb	Low insta medium fb	Medium insta medium fb
Sirplus	Low insta medium fb	Low insta low fb	High insta medium fb
Misfits Market	Medium insta high fb	Low insta medium fb	High insta low fb

Furthermore, the companies were coded by the average use of emoji's in their text posts. They applied either an emoji less, moderate or extensive strategy, as shown in Table 25 and Table 26.

Table 25

Coding emoji use

Emoji use	Example
Emoji less	gothamgreens 🍌 Good news: nothing's wrong with you— our greens are simply that good. (Gotham Greens)

Moderate	pieter_pot SAMEN HEBBEN WE 4 MILJOEN VERPAKKINGEN BESPAARD! ❤️🍷 (Pieter Pot)
Extensive	grind 🌊 It's a booooozy one for day 11 of our Christmas giveaways! 🍷🌟 We are giving YOU the chance to win a £150 bar tab @ Grind! To enter: 🍷 Follow @grind 🍷 Like this post 🍷 Tag your bar tab squad! Good luck! T&C's below 🍷 (Grind)

Table 26

Categorization firms by emoji use

Emoji less	Moderate	Extensive
Alara	Pieter Pot	Grind
Island Bakery	Black Isle Brewery	Hopvrac
Barnana	kencko	nibs etc.
Gotham Greens	Dizzie	Oé
Fruta Feia	Imperfect Foods	Sirplus
Misfits Market	Spudsy	
	Misadventure & co	
	Renewal Mill	
	Oato	
	Ekofungi	
	Toast Ale	
	Löfbergs	
	Goodafter	
	Approved Food	
	GreenPrice	
	Piccolo	

Finally, I studied the content itself in detail. This resulted into five different strategies that can be used in combination: interactive, connecting, promotional, entertaining and calling upon external legitimation. An interactive content strategy entails asking questions, nudging or straight forward asking to undertake some online or offline action. Connecting with consumers is done through acknowledging their efforts, thanking them, making the team/business more personal, referring to 'we/us' instead of 'me vs you' (i.e. the company vs the

consumer), connecting on a personal level (acknowledging feelings, situations of the consumer) and making relatable content. Promotional content is focused on selling and could be in the form of publications, slogans, price reductions, product announcements etc. Further, entertaining content consist of memes, GIFs, funny posts, recipes, ... Finally firms can call upon external legitimation in their posts by referring to partnerships with sustainable or circular partners, mentioning external certificates or standards they meet, showing numbers and facts that demonstrate their circularity or expressing their circular mission through relevant tips and tricks (e.g. food waste hacks). A firm is considered using a certain strategy if it applies it to a significant amount of the posts. One post can possibly combine several strategies and thus a firm can be categorized in multiple categories (see Table 28). Table 27 demonstrates the different types of content strategies. More examples per firm per strategy are given in Table 34 (see appendix).

Table 27

Coding content strategies

Content Strategy	Example
Interactive	“What do you think of this initiative?” “Read our blog with all facts” “Share your tip for a packaging free future” (Pieter Pot)
Connecting	“To date, we've saved over 2 million spuds & counting! Join us on our mission to reduce food waste and learn more when you visit the link in our bio.” “If these Cinnamon Churro French Toast Roll Ups don't get you in the holiday spirit... well, you're probably the grinch ❄️” “Tis the season for sharing 🍷 Tag a friend you're sharing your spuds with on your next road trip.”(Spudsy)
Promotional	“wake up to 55% off all gumdrops with our mystery box” “It's our best deal of the season, so grab them before they're gone” “It's our biggest giveaway EVER!” “All you need is a touch of freeze-dried magic, and 2.5 servings of fresh produce are transformed into one lightweight, portable smoothie packet that you can take with you absolutely anywhere.” “Tap to shop smoothies - our 60 packs have enough for everyone, and include an extra bottle!” (kencko)
Entertaining	“Five foods to eat for good luck in the new year” “meme: a realistic food pyramid” “This Christmas tree @ndd365 made from Imperfect boxes is still one of our favorite DIY holiday decorations to date.” (Imperfect Foods)
External legitimation	“Our founder- Caue Suplicy, meeting some of our growers! Barnana buys bananas and plantains directly from farmer-partners in the Amazon- many of whom are Indigenous women!” “Did you know that Fair Trade chocolate means a lot more than just paying a fair price for cacao? The price we pay for the chocolate that coats our Dark Chocolate Banana Bites funds environmental projects, sustainable farming trainings, economic development, and much more. Buying Fair Trade is an act with a huge ripple effect!” “Our snacks are created through respectful partnerships with smallholder Indigenous farmers in the Amazon. Did you know Indigenous people protect 80% of the world's biodiversity?* We've got a lot to learn! (*World Wildlife Fund)” “In

honor of Climate Week (which is going on now) here's Amber to explain B-corps and why they matter to us at Barnana 🍏" (Barnana)

Table 28

Categorization firms per content strategy

Interactive	Connecting	Promotional	Entertaining	External legitimation
Pieter Pot	Pieter Pot	Alara	Barnana	Pieter Pot
Alara	Black Isle Brewery	Black Isle Brewery	kencko	Barnana
Black Isle Brewery	DASH water	Island Bakery	Dizzie	DASH Water
Island Bakery	Grind	Barnana	Gotham Greens	Dizzie
Barnana	Hopvrac	kencko	Imperfect Foods	Grind
kencko	Imperfect Foods	Dizzie	Löfbergs	Imperfect Foods
DASH Water	Spudsy	Grind	Sirplus	Renewal Mill
Dizzie	Misadventure & Co	Hopvrac	Misfits Market	Toast Ale
Gotham Greens	Renewal Mill	Spudsy	Piccolo	Fruta Feia
Grind	Löfbergs	Misadventure & Co		Misfits Market
Imperfect Foods	Fruta Feia	nibs etc.		GreenPrice
Renewal Mill	Sirplus	Oato		Piccolo
nibs etc.	Piccolo	Oé		
Oé		Ekofungi		
Toast Ale		Toast Ale		
Löfbergs		Goodafter		
Fruta Feia		Approved Food		
Sirplus				
Misfits Market				
Approved Food				
GreenPrice				
Piccolo				

2.4. Results

Figure 10 and Figure 11 (see appendix) show the results of all coding together. In this manner I was able to identify patterns across codes, which results from directly engaging with the data (Locke et al., 2022).

First, several social media strategies came forward from this research. Table 29 summarizes them and provides a description. However, not every strategy could be linked to a high achieved legitimacy.

Table 29

Social media strategies

Strategy	Description
Positioning (website, social media bio, posts and hashtags)	Explicit or inexplicit reference to circularity/sustainability or derivatives thereof
Extensiveness posts	Choice of text length accompanying a post
Interactive content strategy	Aim for interaction with the consumer by asking questions, nudging or straight forward asking to undertake some online or offline action
Connecting content strategy	Aim to connect with consumers by acknowledging their efforts, thanking them, making the team/ business more personal, referring to 'we/us' instead of 'me vs you' (i.e. the company vs the consumer), connecting on a personal level (acknowledging feelings, situations of the consumer) and making relatable content
Promotional content strategy	Aim to sell and promote the product/service through posting publications, slogans, price reductions, product announcements etc.
Entertaining content strategy	Goal to entertain the consumer by posting memes, GIFs, funny posts, recipes, ...
External legitimization content strategy	Aim to achieve legitimacy by calling upon external legitimization in their posts by referring to partnerships with sustainable or circular partners, mentioning external certificates or standards met, showing numbers and facts that demonstrate their circularity or expressing their circular mission through relevant tips and tricks (e.g. food waste hacks)
Emoji use	Choice of amount of emojis in a post
Social media presence	Choice of number of channels to be active on
Frequency	Choice of how often to post (for each channel)
Bombastic posting	Posting multiple posts on one day
Representation	Choice of ratio of image, video and link usage.

Second, by analyzing the data, a pattern was found in the Superstars (see Figure 2), i.e. the firms that achieve a high legitimacy over both channels. This pattern is opposite to what was found in the Nillies (see Figure 3).

Figure 2

Super Stars pattern

Achieved legitimacy type	Firm												
		Positioning Hashtags	Content strategy				Frequency				Bombastic Poster		
Super Stars	Pieter Pot	x	x	x		x				x			
	Imperfect Foods	x	x	x		x					x		
	Fruta Feia	x	x	x		x			x				
	Piccolo	x	x	x		x				x			

Figure 3
Nillies pattern

		Foreground Sustainability/Circularity Background Sustainability/Circularity Interactive Connecting Promotional External Legitimation Single Focus semi-frequent single focus frequent All around sporadic All around semi-frequent all around frequent										
Achieved legitimacy type		Positioning Hashtags	Content strategy				Frequency				Bombastic Poster	
Firm												
Nillies	Alara	x		x		x				x		x
	Oato	x				x					x	x
	Ekofungi	x				x			x			x
	Goodafter	x				x			x			

The **Superstars** are characterized by a background positioning through hashtags, a content strategy that does not focus on promotional content but is rather interacting, connecting and calls upon external legitimation. These firms post with the same consistency over the different channels but without being bombastic posters. Hence, these strategies lead to achieving a high legitimacy. Pieter Pot is a clear example of this category. Figure 4 displays one of their posts that nicely integrates these content strategies. “If you ever wonder “What impact am I making by ordering from Pieter Pot?”” and “This is how we make impact together:” highlight the connecting aspect. “We are proud, so are the people at KraftHeinz, so are you? Read the entire press release via the link in our bio” generates interactivity and the informative content: “Each big bag thus saves 1538 sprinkle packs and 600 oatmeal packs.” makes use of external legitimation. Further, with a posting frequency of 2,73 and 2,70 posts per week for Instagram and Facebook respectively, Pieter Pot is very consistent over its channels.

Figure 4

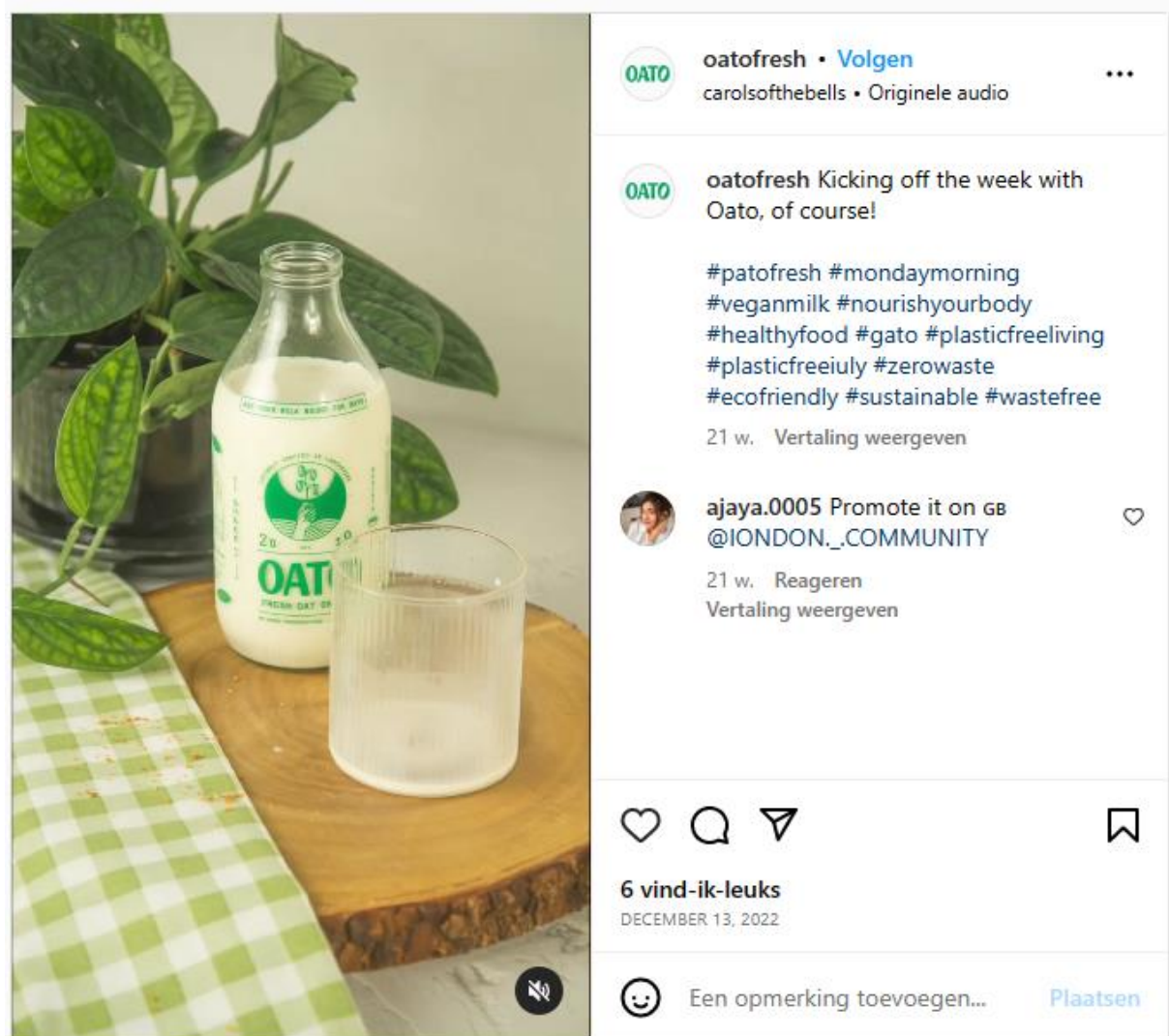
Screenshot Super Star, Pieter Pot



On the other hand the results show that the **Nillies** are firms that do use hashtags to position themselves as foreground sustainable/circular. For example, “#sustainablelifestyle #sustainablefood #sustainableproducts #sustainablebrands” (Alara) or “#sustainableproducts #sustainability” (GoodAfter, translation). Moreover, they focus on promotions in their content. For instance: “Introducing the Chocolate Yacon Granola! Launching soon... Visit for more: <https://alara.co.uk/yacon-plant-sweetner>” (Alara), “The 16th International Fair of Ethnic Food & Drink is held from 24 - 27th of November in Belgrade. You can find us at the stand of the ministarstvopoljoprivrede , with a special discount for the visitors, during the Fair! 🙌🍄 ” (Ekofungi) and “It's not a Black Friday it's a Black Week 🤩 Guys, we have never done a promotion like this. It's a very green promotion because we want our products to get to your homes! SHARE” (GoodAfter, translation). Further, three out of four Nillies are Bombastic posters. They are also consistent in posting frequency over both channels. Hence, the use (or lack of use) of these strategies lead to a low legitimacy. Oato is presented below in Figure 5 as an example of this type of firms. The product is clearly visible in the post and “Kicking of the week with Oato, of course” can be interpreted as a slogan for this firm. Note that #sustainable is used here. Oato was also classified as a bombastic bomber given that they regularly posted two or more posts per day (e.g. 2 posts 13/12 and 2 posts 07/12).

Figure 5

Screenshot Nillie, Oato



Remember that some firms only achieved high legitimacy on Instagram (i.e. Instafamous) or on Facebook (i.e. Facebookfamous). The patterns found for these firms were very similar to the Super Stars (see Figure 6).

The **Instafamous** firms carry the same characteristics as the Super Stars, with the exception that they are both single focused semi-frequent. DASH Water for example posts about 2,1 times per week on Instagram whereas only 0,67 times on Facebook. Hence, consistently applying these strategies on Instagram leads to a high achieved legitimacy on that platform.

GreenPrice is the only **Facebookfamous** firm. Much like the Instafamous ones it is characterized in the same manner as the Supers stars with an exception, namely GreenPrice does not employ the connecting strategy. This could insinuate that for legitimation through Instagram, connecting is more important than for Facebook. However, there is not enough data to conclude this.

Figure 6

Instafamous and Facebookfamous patterns

		Foreground Sustainability/Circularity Background Sustainability/Circularity Interactive Connecting Promotional External Legitimation Single Focus semi-frequent single focus frequent All a round sporadic All a round semi-frequent all a round frequent										
Achieved legitimacy type	Firm	Positioning Hashtags	Content strategy				Frequency				Bombastic Poster	
Instafamous	DASH Water		x	x	x		x	x				
	Renewal Mill		x	x	x		x	x				
Fbfamous	GreenPrice		x	x			x			x		

The remaining types are the **Not So Nillies** and the **Rising Stars**. They share some characteristics with the Nillies and some with the Super Stars. In other words, they are not applying every strategy in such a way to achieve high legitimacy. For example, nibs etc. does not employ the connecting strategy nor calls upon external legitimation. Moreover, they focus on promotions, which is a strategy that is linked to the Nillies. However, they do interact with the followers, position themselves as background sustainable/circular through their hashtags and post consistently over both channels. . Figure 8 shows that the foreground positioning through hashtags only recurs in the Not So Nillies. Hence, this strategy is strongly linked to low achieved legitimacy and thus firms should employ a background positioning strategy through hashtags in order to achieve higher legitimacy. Further, many other differences in employed strategies are visible. However, there is no clear link between which other strategies carry more weight in achieving legitimacy.

Figure 7 demonstrates this with a screenshot. Figure 8 shows that the foreground positioning through hashtags only recurs in the Not So Nillies. Hence, this strategy is strongly linked to low achieved legitimacy and thus firms should employ a background positioning strategy through hashtags in order to achieve higher legitimacy. Further, many other differences in employed strategies are visible. However, there is no clear link between which other strategies carry more weight in achieving legitimacy.

Figure 7

Screenshot Not So Nillie, nibs etc.



Figure 8

Not So Nillies and Rising Stars patterns

		Foreground Sustainability/Circularity				Background Sustainability/Circularity							
		Interactive				Connecting				Promotional			
		External Legitimation				Single focus semi-frequent				All a round sporadic			
		All a round semi-frequent											

Several strategies did not seem to have a significant impact on the achieved legitimacy. Besides the positioning through hashtags, the different means of positioning seemingly did not have any effect. Further, there was no pattern found among the extensiveness of posts, emoji use nor social media presence. A lot of variety was found among the different types of firms for these categories. Finally, the representation choice of content did not seem to have a significant effect either. Nevertheless, I noticed generally higher image use in the Nillies than in the Superstars. In the latter, image use was more alternated with videos or the addition of links. However, this did not come forward as a clear pattern and thus further research would be required to reach a conclusion.

In conclusion, from the strategies that firms can use, the following can lead to high achieved legitimacy: background positioning through hashtags and content strategy that does not focus on promotional content but is rather interacting, connecting and calls upon external legitimation combined with a similar posting frequency on both channels without posting multiple times per day.

3. Discussion

3.1. Key findings and interpretations

The data suggest that firms that want to use social media as a means to achieve legitimacy of their circular business model, need to meet several criteria:

- Background positioning through hashtags
- Non promotional focused content strategy
- Interactive posts
- Connecting posts
- Call upon external legitimation
- Frequency of posting similar on all channels
- No multiple posts per day

The background positioning as a criterium to achieve a high legitimacy might be counterintuitive. Both sustainability and circular economy are often referred to as buzzwords in literature (Kirchherr, 2023; Konstantopoulos & Manoli, 2023; Siew, 2023). However, because these concepts exist in rapidly growing fields, they diffuse in their meaning and lack of consensus about the definitions of these words arises (Henry et al., 2021; Kirchherr, 2023). Hence, the consumer who is no specialist in the field might be overwhelmed by the amount of definitions and as a result is confused, experiences cognitive strain and perceives a decrease in its informativeness (Park & Lee, 2008). Therefore, the overuse of these buzzwords can explain the negative effect on a firms achieved legitimacy.

Consumers are on a constant quest for authenticity (Napoli et al., 2014). Therefore, a firm's authenticity has a significant impact on firm trust and can be of advantage in achieving growth in the market place. One way firms can acquire this is by showing commitment to traditions and production excellence whilst rejecting commercial motivations (Napoli et al., 2014). In line with this, the results show that firms should stay clear of a promotional strategy and focus on connecting with their audience.

Interactive posts as a criterium is in line with previously mentioned research. Palazzo and Scherer (2006) state that legitimacy is the result of discussions in which the public actively participates. Posts that focus on interactivity allow for these discussions to take place. Moreover, according to Ellerup Nielsen and Thomsen (2018) this type of communication can focus on engagement, participation, collaboration and empowerment.

The results of this study also show that calling upon external legitimation has a positive effect on the achieved legitimacy. This is in line with the idea that partnerships with credible organizations have an impact on increasing the trust of consumers (Wikaningrum et al., 2020). Besides partnerships, providing appropriate information is a means to make use of this external legitimation. On the one hand, because sustainable behavior only has a noticeable effect further in the future, decisions made on this front are based on a careful consideration of facts and information available and thus informing about the impact is important (Trudel, 2019). On the other hand, a firm's reputation becomes better as their consumers become more aware of their actual efforts to be sustainable or circular (Cowan & Guzman, 2020). Therefore, information on these efforts or on certification received because of said efforts can help in achieving legitimacy.

The results suggest that posting with the same frequency on all channels has a positive impact. By mainly posting on one channel, legitimization will predominantly take place on that one. Research shows that firms should focus on consistency. Consequently, the consumer understands that after a certain amount of time they can expect a new post on their favorite brand's social media page (Salazar, 2017). While this study does not support the idea that the optimal frequency for posting is 6 to 7 posts a week, it is in line with the idea that posting too often overwhelms followers and consequently will lead to a lower achieved legitimacy because of fewer good brand mentions and lower engagement (Salazar, 2017). Moreover, as can be noted in this study, posting frequently low quality content will not have a positive effect. Only when the content is of high quality, frequent posting may help to achieve legitimacy.

When looking at the results, one could also take the country of origin of the firm into account. Interestingly, GreenPrice, a Chinese firm, achieves a high legitimacy on Facebook, but low legitimacy on Instagram. The legitimization process via social media might be severely impacted by the Chinese censorship program (King et al., 2013). The Chinese government tries to control what content citizens have access to and which channels they can use (Tai & Fu, 2020). This censorship attempts to prevent collective action (King et al., 2013). Hence, posts calling for action and promoting the change towards a circular economy might be taken down and the entire culture surrounding social media is significantly different then in the United States for example. Further, countries in Central and Eastern Europe share similar digital conditions (El Ouidi et al., 2016). However, they are lagging behind Western Europe and the United States in terms of Internet and social networking penetration. This lagging reflects the state of infrastructure and information access conditions in the region. Hence, legitimization through social media might be impacted because of this as well. Hence, Ekofungi as a Serbian firm might experience obstacles in using social media as a route towards legitimization compared to other firms.

Further, the age of the company might be explanatory for part of the achieved legitimacy through social media as well. All the Super Stars are rather young (i.e. Fruta Feia is the oldest dating from 2013). Whereas in the Nillies two out of four are old (i.e. Alara from 1975 and Ekofungi from 2001). Given that the rise of social media started in the early 2000s, younger firms grew up with social media and hence had the opportunity to start developing their social media strategies and community from the very beginning of their existence (Ortiz-Ospina & Roser, 2023). Hence, younger firms might have an advantage in achieving social media legitimacy, which could explain why no older firms are among the Super Stars.

Finally, the results seem independent of the type of product or service offered and the size of the firm. The Super Stars consist of firms that offer fresh fruit and vegetables, babyfood and two supermarkets, whereas the Nillies consist of firms that offer cereal, non-alcoholic beverages, dehydrated mushrooms and one supermarket. On the other hand, the size of the Super Stars vary from micro to large and the size of the Nillies from small to medium.

3.2. Limitations and future research

First, the focus of this research was circular companies within the food industry. As a consequence, the generalizability of the results is limited. Second, only Facebook and Instagram were investigated. Therefore, the differences, advantages and disadvantages of

different social media channels could not be considered. Finally, due to the lack of data in the category of Facebook famous companies, the results cannot confirm if a connecting strategy is truly more important on Instagram than on Facebook. Likewise, no conclusions could be made about the impact of the representation choice (i.e. image, link, video) on the achieved legitimacy.

Therefore, future research is needed to establish if a firm's legitimacy could be more effectively influenced through different strategies specific for each social media channel. Specifically, future studies could investigate if a connecting strategy is more important for Instagram than for Facebook. Other avenues for future research include investigating the ideal fractions of representation choices used and extending the study to other industries. Finally, the use of the popular TikTok that only allows short videos, could be researched.

3.3. Recommendations

Business aiming for a circular business model should be careful to actually address the cause of waste, because often circular business models fail to consider that there might be more ecological methods to satisfy those same needs (Trollman et al., 2020). Trollman et al. (2020) illustrate this with the following example. Beer brewed from old unsold bread initially minimizes the need of virgin materials but does not actually address the cause of waste in the first place. Instead of using unsold bread, the cause of the overstock of bread should be looked into. Many companies resort to repurposing waste streams into resource streams, and thus closing the loop, in an endeavor to slow the mass production of waste (Greer et al., 2021). Greer et al. (2021) note that this can lead to the waste-resource paradox. This paradox states that the attempt to repurpose waste might lead to its commodification and thus actually generate an increase in demand. If the initial environmental benefits generated by the innovation are outweighed by the effect of commodification, Greer et al. (2021) speak of the rebound effect. Therefore, an attempt to innovate a circular business model might actually reinforce the linear economy. Business should be aware of this phenomenon while generating circular innovations, before even considering the best route towards legitimation.

Further, while social networks can have some effect, recent research underlines the importance of real peer-to-peer networks. Specifically, the problem of digital media is that they do not transfer social signals as well as face-to-face interactions do. This makes it harder for people to read each other and so digital media might be less useful in generating the trust needed for the desired behavior change (Planing, 2015). Additionally, customers that pose reviews are often not representative of the general customer base of the company (Camacho-Otero et al., 2019). Moreover, they tend to report extreme experiences, so ultimate positives or negatives. These do not necessarily reflect the average customer experience. Therefore, I propose social media as a means to achieve legitimacy in conjunction with other routes towards legitimation rather than as the sole route.

4. Conclusion

This thesis aimed to identify which social media strategies firms can use to legitimize their circular business model and to what extent these impact their achieved legitimacy. Based on qualitative analysis of the Instagram and Facebook profiles of 28 firms in the food industry, it can be concluded that firms need to focus on a background positioning through

hashtags (i.e. no specific references to circularity or sustainability), should avoid promotional focused content, must create interactive and connecting posts, promote relationships with other credible circular companies and provide information about their actual efforts (i.e. external legitimation), post with the same frequency on all channels while avoiding to post multiple times per day.

This research has shown that social media can indeed be used as a route towards soft legitimation by making use of its characteristic two-way communication channel. Previous studies suggested several social media strategies without indication of their effectiveness to achieve legitimacy. The results of this study might help circular firms in legitimizing their new and innovative business models, and consequently aid in making the change from a linear to a more circular economy.

References

- Aboulamer, A. (2018). Adopting a circular business model improves market equity value. *Thunderbird International Business Review*, 60(5), 765-769.
- Alara Wholefoods. (n.d.). *Our Story*. Retrieved May 24, 2023 from <https://alara.co.uk/our-story/>
- Andrews, D. (2015). The circular economy, design thinking and education for sustainability. *Local Economy*, 30, 305-315. <https://doi.org/10.1177/0269094215578226>
- Appel, G., Grewal, L., Hadi, R., & Stephen, A. T. (2020). The future of social media in marketing. *Journal of the Academy of Marketing Science*, 48(1), 79-95. <https://doi.org/10.1007/s11747-019-00695-1>
- Approved Food. (n.d.). *About Us*. Retrieved May 24, 2023 from https://store.approvedfood.co.uk/page?name=about_us
- Arman, A. A., & Sidik, A. P. (2019). Measurement of Engagement Rate in Instagram (Case Study: Instagram Indonesian Government Ministry and Institutions). 2019 International Conference on ICT for Smart Society (ICISS),
- Auxier, B., & Anderson, M. (2021). Social media use in 2021. *Pew Research Center*, 1, 1-4.
- Baden-Fuller, C., & Morgan, M. S. (2010). Business Models as Models. *Long Range Planning*, 43(2), 156-171. <https://doi.org/https://doi.org/10.1016/j.lrp.2010.02.005>
- Banerjee, S., Savani, M., & Shreedhar, G. (2021). Public support for 'soft' versus 'hard' public policies: Review of the evidence. *Journal of Behavioral Public Administration*, 4(2).
- Barnana. (n.d.-a). *Our Story*. Retrieved May 24, 2023 from <https://barnana.com/pages/story>
- Barnana. (n.d.-b). *Overzicht LinkedIn*. <https://www.linkedin.com/company/barnana/about/>
- Barnhart, B. (2019). *10 Ways to Increase Facebook Engagement that Work*. Retrieved May 2, 2023 from <https://sproutsocial.com/insights/facebook-engagement/>
- Biloslavo, R., Bagnoli, C., Massaro, M., & Cosentino, A. (2020). Business model transformation toward sustainability: the impact of legitimation. *Management Decision*, 58(8), 1643-1662. <https://doi.org/10.1108/MD-09-2019-1296>
- Black Isle Brewery Co. (n.d.-a). *The Black Isle Brewery Story*. Retrieved May 24, 2023 from <https://www.blackislebrewery.com/people-planet/about/>
- Black Isle Brewery Co. (n.d.-b). *Overzicht LinkedIn*. Retrieved May 31, 2023 from <https://www.linkedin.com/company/black-isle-brewery/about/>
- Bocken, N. M. P., de Pauw, I., Bakker, C., & van der Grinten, B. (2016). Product design and business model strategies for a circular economy. *Journal of Industrial and Production Engineering*, 33(5), 308-320. <https://doi.org/10.1080/21681015.2016.1172124>
- Brandwatch. (2022). *23 Tips to Increase Instagram Engagement*. Retrieved May 2, 2023 from <https://www.brandwatch.com/blog/tips-increase-instagram-engagement/>
- Brydges, T. (2021). Closing the loop on take, make, waste: Investigating circular economy practices in the Swedish fashion industry. *Journal of Cleaner Production*, 293, 126245. <https://doi.org/https://doi.org/10.1016/j.jclepro.2021.126245>
- Camacho-Otero, J., Boks, C., & Pettersen, I. N. (2019). User acceptance and adoption of circular offerings in the fashion sector: Insights from user-generated online reviews. *Journal of Cleaner Production*, 231, 928-939. <https://doi.org/https://doi.org/10.1016/j.jclepro.2019.05.162>
- Cambridge Dictionary. (n.d.). Legitimation. In *Cambridge Dictionary*. <https://dictionary.cambridge.org/dictionary/english/legitimation>
- Campbell, S., Greenwood, M., Prior, S., Shearer, T., Walkem, K., Young, S., Bywaters, D., & Walker, K. (2020). Purposive sampling: complex or simple? Research case examples. *J Res Nurs*, 25(8), 652-661. <https://doi.org/10.1177/1744987120927206>
- Camps de Gispert, C. (n.d.). *Ervaring LinkedIn*. Retrieved May 24, 2023 from <https://www.linkedin.com/in/chantalcampsdegispert/?originalSubdomain=pt>

- Cantú, A., Aguiñaga, E., & Scheel, C. (2021). Learning from Failure and Success: The Challenges for Circular Economy Implementation in SMEs in an Emerging Economy. *Sustainability*, 13(3), 1529. <https://www.mdpi.com/2071-1050/13/3/1529>
- Chamberlin, L., & Boks, C. (2018). Marketing Approaches for a Circular Economy: Using Design Frameworks to Interpret Online Communications. *Sustainability*, 10(6), 2070. <https://www.mdpi.com/2071-1050/10/6/2070>
- Chandra, Y., & Shang, L. (2019). Inductive Coding. In Y. Chandra & L. Shang (Eds.), *Qualitative Research Using R: A Systematic Approach* (pp. 91-106). Springer Nature Singapore. https://doi.org/10.1007/978-981-13-3170-1_8
- Chassé, S., & Boiral, O. (2017). Legitimizing Corporate (Un) Sustainability: A Case Study of Passive SMEs. *Organization & Environment*, 30(4), 324-345. <https://doi.org/10.1177/1086026616672065>
- Cowan, K., & Guzman, F. (2020). How CSR reputation, sustainability signals, and country-of-origin sustainability reputation contribute to corporate brand performance: An exploratory study. *Journal of Business Research*, 117, 683-693. <https://doi.org/https://doi.org/10.1016/j.jbusres.2018.11.017>
- Crippa, M., Solazzo, E., Guizzardi, D., Monforti-Ferrario, F., Tubiello, F. N., & Leip, A. (2021). Food systems are responsible for a third of global anthropogenic GHG emissions. *Nature Food*, 2(3), 198-209. <https://doi.org/10.1038/s43016-021-00225-9>
- Czinkota, M., Kaufmann, H. R., & Basile, G. (2014). The relationship between legitimacy, reputation, sustainability and branding for companies and their supply chains. *Industrial Marketing Management*, 43(1), 91-101. <https://doi.org/https://doi.org/10.1016/j.indmarman.2013.10.005>
- Dal Bó, E., & Dal Bó, P. (2014). "Do the right thing:" The effects of moral suasion on cooperation. *Journal of Public Economics*, 117, 28-38. <https://doi.org/https://doi.org/10.1016/j.jpubeco.2014.05.002>
- DASH Water. (n.d.). *Overzicht LinkedIn*. Retrieved May 31, 2023 from <https://www.linkedin.com/company/dash-water/about/>
- de Souza, M., Pereira, G. M., Lopes de Sousa Jabbour, A. B., Chiappetta Jabbour, C. J., Trento, L. R., Borchardt, M., & Zvirtes, L. (2021). A digitally enabled circular economy for mitigating food waste: Understanding innovative marketing strategies in the context of an emerging economy. *Technological Forecasting and Social Change*, 173, 121062. <https://doi.org/https://doi.org/10.1016/j.techfore.2021.121062>
- Dizzie. (n.d.). *Overzicht LinkedIn*. Retrieved May 31, 2023 from <https://www.linkedin.com/company/getdizzie/about/>
- Ekofungi. (n.d.-a). *My Story*. Retrieved May 24, 2023 from <https://www.systemekofungi.com/my-story/>
- Ekofungi. (n.d.-b). *Overzicht LinkedIn*. Retrieved May 31, 2023 from <https://www.linkedin.com/company/ekofungi-21st-century-food/about/>
- El Ouiridi, M., El Ouiridi, A., Segers, J., & Pais, I. (2016). Technology adoption in employee recruitment: The case of social media in Central and Eastern Europe. *Computers in Human Behavior*, 57, 240-249. <https://doi.org/https://doi.org/10.1016/j.chb.2015.12.043>
- Elisha, O. D. (2020). Moving beyond take-make-dispose to take-make-use for sustainable economy. *Int. J. Sci. Res. Educ*, 13, 497-516.
- Ellen MacArthur Foundation. (n.d.). *Circular economy introduction*. Retrieved March 15 from <https://ellenmacarthurfoundation.org/topics/circular-economy-introduction/overview>
- Ellerup Nielsen, A., & Thomsen, C. (2018). Reviewing corporate social responsibility communication: a legitimacy perspective. *Corporate Communications: An International Journal*, 23(4), 492-511. <https://doi.org/10.1108/CCIJ-04-2018-0042>
- Esposito, M., Tse, T., & Soufani, K. (2018). Introducing a circular economy: New thinking with new managerial and policy implications. *California Management Review*, 60(3), 5-19.

- Ettenson, R., & Knowles, J. (2008). Don't confuse reputation with brand. *MIT Sloan Management Review*, 49, 19-21.
- European Parliament. (2016). *Closing the loop: New circular economy package*. https://www.europarl.europa.eu/RegData/etudes/BRIE/2016/573899/EPRS_BRI%282016%29573899_EN.pdf
- Fehrer, J. A., & Wieland, H. (2021). A systemic logic for circular business models. *Journal of Business Research*, 125, 609-620. <https://doi.org/https://doi.org/10.1016/j.ibusres.2020.02.010>
- Ferrara, E., Varol, O., Menczer, F., & Flammini, A. (2021). Detection of Promoted Social Media Campaigns. *Proceedings of the International AAAI Conference on Web and Social Media*, 10(1), 563-566. <https://doi.org/10.1609/icwsm.v10i1.14772>
- Fisher, I., & Ziviani, J. (2004). Explanatory case studies: Implications and applications for clinical research [<https://doi.org/10.1111/j.1440-1630.2004.00446.x>]. *Australian Occupational Therapy Journal*, 51(4), 185-191. <https://doi.org/https://doi.org/10.1111/j.1440-1630.2004.00446.x>
- Froes, T. (n.d.). *Ervaring LinkedIn*. Retrieved May 24, 2023 from <https://www.linkedin.com/in/tbfroes/>
- Fruta Feia. (n.d.-a). *Implementation*. Retrieved May 24, 2023 from <https://frutafeia.pt/en/the-project>
- Fruta Feia. (n.d.-b). *Overzicht LinkedIn*. <https://www.linkedin.com/company/fruta-feia-crl/about/>
- Gazzola, P., Pavione, E., Pezzetti, R., & Grechi, D. (2020). Trends in the Fashion Industry. The Perception of Sustainability and Circular Economy: A Gender/Generation Quantitative Approach. *Sustainability*, 12(7), 2809. <https://www.mdpi.com/2071-1050/12/7/2809>
- Geissdoerfer, M., Pieroni, M. P. P., Pigosso, D. C. A., & Soufani, K. (2020). Circular business models: A review. *Journal of Cleaner Production*, 277, 123741. <https://doi.org/https://doi.org/10.1016/j.jclepro.2020.123741>
- glassdoor. (n.d.). *Approved Food*. Retrieved May 31, 2023 from <https://www.glassdoor.com/Overview/Working-at-Approved-Food-IE2093002.11,24.htm>
- Glozer, S., Caruana, R., & Hibbert, S. A. (2019). The Never-Ending Story: Discursive Legitimation in Social Media Dialogue. *Organization Studies*, 40(5), 625-650. <https://doi.org/10.1177/0170840617751006>
- Gotham Greens. (n.d.-a). *Our Story*. Retrieved May 24, 2023 from <https://www.gothamgreens.com/our-story/>
- Gotham Greens. (n.d.-b). *Overzicht LinkedIn*. Retrieved May 31, 2023 from <https://www.linkedin.com/company/gotham-greens-farms/about/>
- GreenPrice. (n.d.-a). *Our Story*. Retrieved May 24, 2023 from <https://www.greenprice.com/pages/our-story>
- GreenPrice. (n.d.-b). *Overzicht LinkedIn*. Retrieved May 31, 2023 from <https://www.linkedin.com/company/greenprice/about/>
- Greer, R., von Wirth, T., & Loorbach, D. (2021). The Waste-Resource Paradox: Practical dilemmas and societal implications in the transition to a circular economy. *Journal of Cleaner Production*, 303, 126831. <https://doi.org/https://doi.org/10.1016/j.jclepro.2021.126831>
- Grind. (n.d.-a). *About Us*. Retrieved May 24, 2023 from <https://grind.co.uk/pages/about-us>
- Grind. (n.d.-b). *Overzicht LinkedIn*. Retrieved May 31, 2023 from <https://www.linkedin.com/company/shoreditch-grind/about/>
- Gustafsson, J. (2017). Single case studies vs. multiple case studies: A comparative study. In.
- Hansson, S., & Page, R. (2022a). Corpus-assisted analysis of legitimation strategies in government social media communication. *Discourse & Communication*, 16(5), 551-571. <https://doi.org/10.1177/17504813221099202>
- Hansson, S., & Page, R. (2022b). Legitimation in government social media communication: the case of the Brexit department. *Critical Discourse Studies*, 1-18. <https://doi.org/10.1080/17405904.2022.2058971>
- Heale, R., & Twycross, A. (2018). What is a case study? *Evidence Based Nursing*, 21(1), 7. <https://doi.org/10.1136/eb-2017-102845>

- Henry, M., Schraven, D., Bocken, N., Frenken, K., Hekkert, M., & Kirchherr, J. (2021). The battle of the buzzwords: A comparative review of the circular economy and the sharing economy concepts. *Environmental Innovation and Societal Transitions*, 38, 1-21. <https://doi.org/https://doi.org/10.1016/j.eist.2020.10.008>
- Hofmann, F., Jokinen, T., & Marwede, M. (2017). *Circular Business Models*. Retrieved March 19 from <https://sustainabilityguide.eu/methods/circular-business-models/>
- Holmgreen, L.-L. (2021). Is being right legitimate? Addressing public outcries on social media. *Discourse, Context & Media*, 39, 100458. <https://doi.org/https://doi.org/10.1016/j.dcm.2020.100458>
- Hopvrac. (n.d.-a). *Hopvrac*. Retrieved May 24, 2023 from <https://wemakeit.com/projects/hopvrac/show/news?locale=en>
- Hopvrac. (n.d.-b). *Overzicht LinkedIn*. Retrieved May 31, 2023 from <https://www.linkedin.com/company/hopvrac/about/>
- Imperfect Foods. (n.d.-a). *About Us*. Retrieved May 24, 2023 from <https://www.imperfectfoods.com/about-us#:~:text=Imperfect%20Foods%20was%20founded%20in,better%20food%20system%20for%20everyone.>
- Imperfect Foods. (n.d.-b). *Overzicht LinkedIn*. Retrieved May 31, 2023 from <https://www.linkedin.com/company/imperfect-foods-spc/about/>
- Island Bakery. (n.d.-a). *The Island Bakery Story*. Retrieved May 24, 2023 from <https://www.islandbakery.scot/the-island-bakery-story/>
- Island Bakery. (n.d.-b). *Overzicht LinkedIn*. Retrieved May 31, 2023 from <https://www.linkedin.com/company/island-bakery-organics-limited/about/>
- Ito, K., Ida, T., & Tanaka, M. (2018). Moral Suasion and Economic Incentives: Field Experimental Evidence from Energy Demand. *American Economic Journal: Economic Policy*, 10(1), 240-267. <https://doi.org/10.1257/pol.20160093>
- Jaakonmäki, R., Müller, O., & Vom Brocke, J. (2017). The impact of content, context, and creator on user engagement in social media marketing. *Proceedings of the Annual Hawaii International Conference on System Sciences*,
- Jiang, P., Zhou, J., Fan, Y. V., Klemenš, J. J., Zheng, M., & Varbanov, P. S. (2021). Data analysis of resident engagement and sentiments in social media enables better household waste segregation and recycling. *Journal of Cleaner Production*, 319, 128809. <https://doi.org/https://doi.org/10.1016/j.jclepro.2021.128809>
- Jora, O.-D., Pătruți, A., Iacob, M., & Șancariuc, D.-R. (2020). "Squaring the Circle"—The Disregarded Institutional Theory and the Distorted Practice of Packaging Waste Recycling in Romania. *Sustainability*, 12(22), 9440. <https://www.mdpi.com/2071-1050/12/22/9440>
- kencko. (n.d.). *Overzicht LinkedIn*. Retrieved May 31, 2023 from <https://www.linkedin.com/company/kenckofoods/about/>
- Kim, N., Woo, H., & Ramkumar, B. (2021). The role of product history in consumer response to online second-hand clothing retail service based on circular fashion. *Journal of Retailing and Consumer Services*, 60, 102457. <https://doi.org/https://doi.org/10.1016/j.jretconser.2021.102457>
- Kim, R. Y. (2020). The value of followers on social media. *IEEE Engineering Management Review*, 48(2), 173-183.
- King, G., Pan, J., & Roberts, M. E. (2013). How Censorship in China Allows Government Criticism but Silences Collective Expression. *American Political Science Review*, 107(2), 326-343. <https://doi.org/10.1017/S0003055413000014>
- Kirchherr, J. (2023). Bullshit in the Sustainability and Transitions Literature: a Provocation. *Circular Economy and Sustainability*, 3(1), 167-172. <https://doi.org/10.1007/s43615-022-00175-9>
- Kolis, K., & Jirinova, K. (2013). Differences between B2B and B2C customer relationship management: findings from the Czech Republic. *European Scientific Journal*, 4, 22-27.

- KÖNIG, T. (2007). Divergence or convergence? From ever-growing to ever-slowing European legislative decision making. *European Journal of Political Research*, 46(3), 417-444. <https://doi.org/https://doi.org/10.1111/j.1475-6765.2006.00648.x-i1>
- Konstantopoulos, I., & Manoli, A. E. (2023). Sustainable is the new black: a commentary on the future of sports ecology. *Managing Sport and Leisure*, 1-4. <https://doi.org/10.1080/23750472.2023.2182827>
- Korhonen, J., Honkasalo, A., & Seppälä, J. (2018). Circular Economy: The Concept and its Limitations. *Ecological Economics*, 143, 37-46. <https://doi.org/https://doi.org/10.1016/j.ecolecon.2017.06.041>
- Koshy, V. (2023). *Seven Types of Social Media Content to Create to Wow Your Fans*. Retrieved May 10, 2023 from <https://nealschaffer.com/types-social-media-content/>
- Kyriakopoulos, G. L. (2021). Environmental Legislation in European and International Contexts: Legal Practices and Social Planning toward the Circular Economy. *Laws*, 10(1), 3. <https://www.mdpi.com/2075-471X/10/1/3>
- Latiff, Z. A., & Safiee, N. A. S. (2015). New Business Set Up for Branding Strategies on Social Media – Instagram. *Procedia Computer Science*, 72, 13-23. <https://doi.org/https://doi.org/10.1016/j.procs.2015.12.100>
- Lee, Y.-J., Yoon, H. J., & O'Donnell, N. H. (2018). The effects of information cues on perceived legitimacy of companies that promote corporate social responsibility initiatives on social networking sites. *Journal of Business Research*, 83, 202-214. <https://doi.org/https://doi.org/10.1016/j.ibusres.2017.09.039>
- Lewandowski, M. (2016). Designing the Business Models for Circular Economy—Towards the Conceptual Framework. *Sustainability*, 8(1), 43. <https://www.mdpi.com/2071-1050/8/1/43>
- Locke, K., Feldman, M., & Golden-Biddle, K. (2022). Coding practices and iterativity: Beyond templates for analyzing qualitative data. *Organizational Research Methods*, 25(2), 262-284.
- Löfbergs. (n.d.-a). Löfbergs. Retrieved May 24, 2023 from <https://en.lofbergs.se/>
- Löfbergs. (n.d.-b). *Overzicht LinkedIn*. Retrieved May 31, 2023 from <https://www.linkedin.com/company/lofbergs/about/>
- Longato, D., Lucertini, G., Dalla Fontana, M., & Musco, F. (2019). Including Urban Metabolism Principles in Decision-Making: A Methodology for Planning Waste and Resource Management. *Sustainability*, 11(7), 2101. <https://www.mdpi.com/2071-1050/11/7/2101>
- Malnik, J. (2021). *Facebook Engagement: What Is It & How Do You Measure It?* Retrieved May 2, 2023 from <https://databox.com/facebook-engagement-tips>
- Martins, F. S., da Cunha, J. A. C., & Serra, F. A. R. (2018). Secondary data in research—uses and opportunities. *PODIUM sport, leisure and tourism review*, 7(3).
- McLachlan, S., & Newberry, C. (2021). *23 Simple Ways to Increase Facebook Engagement (Free Calculator)*. Retrieved May 2, 2023 from <https://blog.hootsuite.com/increase-facebook-engagement/>
- McMahan, E. A., & Renken, M. D. (2011). Eudaimonic conceptions of well-being, meaning in life, and self-reported well-being: Initial test of a mediational model. *Personality and Individual Differences*, 51(5), 589-594. <https://doi.org/https://doi.org/10.1016/j.paid.2011.05.020>
- Misadventure & Co. (n.d.). *Overzicht LinkedIn*. Retrieved May 24, 2023 from <https://www.linkedin.com/company/misadventureco/about/>
- Misfits Market. (n.d.). *Overzicht LinkedIn*. Retrieved May 31, 2023 from <https://www.linkedin.com/company/misfitmarket/about/>
- Napoli, J., Dickinson, S. J., Beverland, M. B., & Farrelly, F. (2014). Measuring consumer-based brand authenticity. *Journal of Business Research*, 67(6), 1090-1098. <https://doi.org/https://doi.org/10.1016/j.ibusres.2013.06.001>
- Newberry, C. (2022). *15 Tips for a Better Instagram Engagement Rate [CALCULATOR]*. Retrieved May 2, 2023 from <https://blog.hootsuite.com/instagram-engagement/>

- News European Parliament. (2015, Apr 26, 2022). *Circular economy: definition, importance and benefits*. Retrieved Nov 22 from <https://www.europarl.europa.eu/news/en/headlines/economy/20151201STO05603/circular-economy-definition-importance-and-benefits>
- nibs etc Ltd. (n.d.). *Overzicht LinkedIn*. Retrieved May 24, 2023 from <https://www.linkedin.com/company/nibs-etc-ltd/about/>
- Oato. (n.d.). *Overzicht LinkedIn*. Retrieved May 31, 2023 from <https://www.linkedin.com/company/oato/about/>
- Oé. (n.d.). *Overzicht LinkedIn*. Retrieved May 24, 2023 from <https://www.linkedin.com/company/oeforgood/about/>
- OECD. (2023). *Enterprises by business size (indicator)*. Retrieved May 31, 2023 from doi: 10.1787/31d5eeaf-en
- Ortiz-Ospina, E., & Roser, M. (2023). The rise of social media. *Our world in data*.
- Otles, S., Despoudi, S., Bucatariu, C., & Kartal, C. (2015). Chapter 1 - Food waste management, valorization, and sustainability in the food industry. In C. M. Galanakis (Ed.), *Food Waste Recovery* (pp. 3-23). Academic Press. <https://doi.org/https://doi.org/10.1016/B978-0-12-800351-0.00001-8>
- Palazzo, G., & Scherer, A. G. (2006). Corporate Legitimacy as Deliberation: A Communicative Framework. *Journal of Business Ethics*, 66(1), 71-88. <https://doi.org/10.1007/s10551-006-9044-2>
- Park, D.-H., & Lee, J. (2008). eWOM overload and its effect on consumer behavioral intention depending on consumer involvement. *Electronic Commerce Research and Applications*, 7(4), 386-398. <https://doi.org/https://doi.org/10.1016/j.eierap.2007.11.004>
- Patten, B. (n.d.). *Ervaring LinkedIn*. Retrieved May 24, 2023 from <https://www.linkedin.com/in/benpatten99/?originalSubdomain=uk>
- Piccolo. (n.d.). *Info LinkedIn*. Retrieved May 24, 2023 from <https://www.linkedin.com/company/piccolo-foods/?originalSubdomain=uk>
- Pieter Pot. (n.d.-a). *Overzicht LinkedIn*. Retrieved May 31, 2023 from <https://www.linkedin.com/company/pieterpot/about/>
- Pieter Pot. (n.d.-b). *Werken bij Pieter Pot*. Retrieved May 23, 2023 from <https://werkenbij.pieter-pot.nl/>
- Planing, P. (2015). Business Model Innovation in a Circular Economy Reasons for Non-Acceptance of Circular Business Models. *Open Journal of Business Model Innovation*.
- Pop, R.-A., Săplăcan, Z., & Alt, M.-A. (2020). Social Media Goes Green—The Impact of Social Media on Green Cosmetics Purchase Motivation and Intention. *Information*, 11(9), 447. <https://www.mdpi.com/2078-2489/11/9/447>
- Popsters. (2022). *Engagement Rate: How to Calculate ER for Social Media Properly*. <https://popsters.com/blog/post/er-how-to-calculate-engagement-rate>
- Popsters. (n.d.). *Common Questions*. Retrieved April 17, 2023 from https://popsters.com/app/fag/#text_length_count
- Press, M., Robert, I., & Maillefert, M. (2020). The role of linked legitimacy in sustainable business model development. *Industrial Marketing Management*, 89, 566-577. <https://doi.org/https://doi.org/10.1016/j.indmarman.2019.05.009>
- Ramesh, A. (n.d.). *Ervaring LinkedIn*. Retrieved May 24, 2023 from <https://www.linkedin.com/in/abhiramesh/>
- Rendtorff, J. D. (2019). The Concept of Business Legitimacy: Corporate Social Responsibility, Corporate Citizenship, Corporate Governance as Essential Elements of Ethical Business Legitimacy. In D. Crowther, S. Seifi, & T. Wond (Eds.), *Responsibility and Governance: The Twin Pillars of Sustainability* (pp. 45-60). Springer Singapore. https://doi.org/10.1007/978-981-13-1047-8_4
- Renewal Mill. (n.d.). *Overzicht LinkedIn*. Retrieved May 24, 2023 from <https://www.linkedin.com/company/renewal-mill/about/>

- Ross, A. S., & Rivers, D. J. (2020). Donald Trump, legitimisation and a new political rhetoric. *World Englishes*, 39(4), 623-637. <https://doi.org/https://doi.org/10.1111/weng.12501>
- Russo, A., Watkins, J., Kelly, L., & Chan, S. (2008). Participatory communication with social media. *Curator: The Museum Journal*, 51(1), 21-31.
- Salazar, J. M. R. (2017). Inverted u-shaped impact of social media posting frequency on engagement and sentiment ratio. *Empirical Quests for Management Essences*, 1(3), 1-15. <https://researchberg.com/index.php/eqme/article/view/31>
- Saravanakumar, M., & SuganthaLakshmi, T. (2012). Social Media Marketing. *Life Science Journal*, 9, 4444-4451.
- Schivinski, B., & Dabrowski, D. (2016). The effect of social media communication on consumer perceptions of brands. *Journal of Marketing Communications*, 22(2), 189-214. <https://doi.org/10.1080/13527266.2013.871323>
- Schoch, K. (2020). Case study research. *Research design and methods: An applied guide for the scholar-practitioner*, 245-258.
- Shokouhyar, S., & Shahrasbi, A. (2022). Revealing the reality behind consumers' participation in WEEE treatment schemes: a mixed method approach. *Journal of Environmental Planning and Management*, 65(13), 2436-2467. <https://doi.org/10.1080/09640568.2021.1972284>
- Siew, R. (2023). Introduction to Sustainability Analytics. In R. Siew (Ed.), *Sustainability Analytics Toolkit for Practitioners: Creating Value in the 21st Century* (pp. 1-6). Springer Nature Singapore. https://doi.org/10.1007/978-981-19-8237-8_1
- Sirplus. (n.d.-a). *Overzicht LinkedIn*. Retrieved May 31, 2023 from <https://www.linkedin.com/company/sirplusde/about/>
- Sirplus. (n.d.-b). *Wer steckt hinter SIRPLUS*. Retrieved May 24, 2023 from <https://sirplus.de/pages/was-ist-sirplus>
- Smith, K. (n.d.). *Ervaring LinkedIn*. Retrieved May 31, 2023 from <https://www.linkedin.com/in/katrina-smith-8468346b/?originalSubdomain=uk>
- Spudsy. (n.d.-a). *Our Story*. Retrieved May 24, 2023 from <https://www.spudsy.com/pages/our-story>
- Spudsy. (n.d.-b). *Overzicht LinkedIn*. Retrieved May 31, 2023 from <https://www.linkedin.com/company/spudsy/about/>
- Srivastava, P., & Hopwood, N. (2009). A practical iterative framework for qualitative data analysis. *International journal of qualitative methods*, 8(1), 76-84.
- Stahel, W. R. (2016). The circular economy. *Nature*, 531(7595), 435-438. <https://doi.org/10.1038/531435a>
- Stocchi, L., Pourazad, N., Michaelidou, N., Tanusondjaja, A., & Harrigan, P. (2022). Marketing research on Mobile apps: past, present and future. *Journal of the Academy of Marketing Science*, 50(2), 195-225. <https://doi.org/10.1007/s11747-021-00815-w>
- Susur, E., & Engwall, M. (2022). A transitions framework for circular business models. *Journal of Industrial Ecology*.
- Tai, Y., & Fu, K.-w. (2020). Specificity, conflict, and focal point: A systematic investigation into social media censorship in China. *Journal of Communication*, 70(6), 842-867.
- The Modern Milkman. (n.d.). *Oato*. Retrieved May 24, 2023 from <https://themodernmilkman.co.uk/our-suppliers/oato>
- The Portugal News. (2020). Retrieved May 31, 2023 from <https://www.theportugalnews.com/news/portuguese-online-supermarket-eliminating-food-waste/56321>
- Toast Ale. (n.d.-a). Retrieved May 31, 2023 from <https://www.linkedin.com/company/toastale/about/>
- Toast Ale. (n.d.-b). *About Us*. Retrieved May 24, 2023 from <https://www.toastale.com/about-us>
- Trollman, H., Colwill, J., & Brejnholt, A. (2020). Ecologically embedded design in manufacturing: Legitimation within circular economy. *Sustainability*, 12(10), 4261.
- Trudel, R. (2019). Sustainable consumer behavior. *Consumer Psychology Review*, 2(1), 85-96. <https://doi.org/https://doi.org/10.1002/arcp.1045>

- Tyler, T. R. (2006). Psychological perspectives on legitimacy and legitimation. *Annu. Rev. Psychol.*, 57, 375-400.
- Urbanati, A., Chiaroni, D., & Chiesa, V. (2017). Towards a new taxonomy of circular economy business models. *Journal of Cleaner Production*, 168, 487-498. <https://doi.org/https://doi.org/10.1016/j.jclepro.2017.09.047>
- Verleye, K. (2019). Designing, writing-up and reviewing case study research: an equifinality perspective. *Journal of Service Management*, 30(5), 549-576. <https://doi.org/10.1108/JOSM-08-2019-0257>
- Vermunt, D. A., Negro, S. O., Verweij, P. A., Kuppens, D. V., & Hekkert, M. P. (2019). Exploring barriers to implementing different circular business models. *Journal of Cleaner Production*, 222, 891-902. <https://doi.org/https://doi.org/10.1016/j.jclepro.2019.03.052>
- Voss, K. E., Spangenberg, E. R., & Grohmann, B. (2003). Measuring the Hedonic and Utilitarian Dimensions of Consumer Attitude. *Journal of Marketing Research*, 40(3), 310-320. <https://doi.org/10.1509/jmkr.40.3.310.19238>
- Wikaningrum, T., Ghozali, I., Nurcholis, L., & Nugroho, M. (2020). Strategic Partnership: How Important for Reputation of Small and Medium Enterprise? *Quality-Access to Success*, 21(174), 35-39.
- Wright, A. (n.d.). *Ervaring LinkedIn*. Retrieved May 24, 2023 from <https://www.linkedin.com/in/alex-wright-5ab0b182/?originalSubdomain=uk>
- Yost, E., Zhang, T., & Qi, R. (2021). The power of engagement: Understanding active social media engagement and the impact on sales in the hospitality industry. *Journal of Hospitality and Tourism Management*, 46, 83-95. <https://doi.org/https://doi.org/10.1016/j.jhtm.2020.10.008>
- Zhang, D., Huang, X., Wen, Y., Trivedi, P., & Joghee, S. (2021). Sustainable Circular Business Model for Transparency and Uncertainty Reduction in Supply Chain Management. *Journal of Theoretical and Applied Electronic Commerce Research*, 16(4), 959-975. <https://www.mdpi.com/0718-1876/16/4/54>
- Zhijun, F., & Nailing, Y. (2007). Putting a circular economy into practice in China. *Sustainability Science*, 2(1), 95-101. <https://doi.org/10.1007/s11625-006-0018-1>
- Zote, J. (2023). *13 Ways to increase your Instagram engagement rate*. Retrieved May 2, 2023 from <https://sproutsocial.com/insights/instagram-engagement/>

lices

fb	insta																							
	Posts	Posts	Shares	Total likes	Total likes	Avg likes	Avg likes	Total comments	Total comments	Avg comments	Avg comments	Avg ER	Avg ER	Max ER	Max ER	Reference	Reference	Hashtags	Hashtags	Frequency	Frequency	# social media channels used	% of posts are image	% of posts are image
143	141	815	53291	10607	373	75	2959	1833	21	13,0	0,70%	0,38%	8,68%	3,88%	20%	22%	13%	1%	2,73	2,70	2	63%	61%	0%
89	75	7	1068	94	12	1	377	14	4	0,2	0,56%	0,01%	6,63%	0,05%	63%	56%	318%	161%	1,70	1,43	2	93%	91%	22%
89	94	177	7229	3660	81	39	236	316	3	3,4	0,96%	0,31%	4,59%	2,12%	1%	7%	3%	3%	1,70	1,80	4	91%	90%	9%
27	49	113	2514	2293	93	47	163	260	6	5,3	2,43%	1,01%	7,23%	5,80%	4%	2%	0%	0%	0,52	0,94	3	89%	80%	4%
233	145	64	26547	1402	114	10	13454	872	58	6,0	0,32%	0,05%	3,96%	0,78%	6%	3%	7%	3%	4,46	2,77	4	53%	94%	10%
183	99	129	38270	1624	209	16	4342	864	24	8,7	0,15%	0,06%	1,45%	0,30%	3%	4%	0%	0%	3,50	1,89	3	59%	79%	0%
110	35	33	26455	347	241	10	22011	119	200	3,4	0,71%	0,15%	11,54%	0,66%	1%	0%	0%	0%	2,10	0,67	3	62%	100%	0%
77	138	73	4146	478	54	3	733	90	10	0,7	0,41%	0,05%	4,45%	0,47%	10%	9%	29%	25%	1,47	2,64	3	66%	77%	4%
301	49	78	64373	1310	214	27	2184	74	7	1,5	0,31%	0,01%	2,35%	0,07%	1%	0%	0%	0%	5,76	0,94	4	91%	41%	0%
245	6	7	148763	93	607	16	47875	19	195	3,2	0,39%	0,27%	5,16%	0,71%	0%	0%	1%	0%	4,69	0,11	4	34%	83%	1%
126	130	133	4630	1466	37	11	203	53	2	0,4	2,14%	1,00%	5,70%	5,96%	7%	8%	2%	2%	2,41	2,49	3	83%	90%	63%
296	175	1102	346428	10801	1170	62	18957	1282	64	7,3	0,27%	0,02%	4,49%	0,41%	6%	8%	0%	0%	5,66	3,35	5	74%	91%	0%
324	128	43	13658	732	42	6	7676	129	24	1,0	0,18%	0,31%	5,44%	15,51%	1%	1%	0%	0%	6,20	2,44	2	61%	80%	0%
155	158	29	12824	847	83	5	633	78	4	0,5	1,39%	0,26%	6,41%	1,86%	23%	22%	17%	15%	2,96	3,02	3	79%	96%	1%
122	38	7	7775	77	64	2	4171	9	34	0,2	0,91%	0,42%	12,32%	1,54%	17%	16%	6%	0%	2,33	0,73	4	82%	89%	14%
58	53	0	2365	62	41	1	614	25	11	0,5	1,10%	0,32%	6,28%	0,79%	2%	2%	3%	2%	1,11	1,01	4	79%	94%	2%
232	230	173	2692	1183	12	5	126	97	1	0,4	0,27%	0,20%	1,38%	1,02%	5%	5%	14%	15%	4,44	4,40	4	97%	99%	6%
217	209	91	19821	1418	91	7	5923	34	27	0,2	0,76%	0,07%	18,39%	0,44%	9%	8%	4%	2%	4,15	4,00	5	83%	94%	2%
6	6	9	115	46	19	8	11	5	2	0,8	1,04%	0,81%	1,39%	1,22%	33%	0%	117%	67%	0,11	0,11	2	100%	100%	0%
161	103	80	10835	711	67	7	3727	78	23	0,8	0,42%	0,14%	6,16%	0,71%	14%	14%	27%	15%	3,08	1,97	4	41%	76%	2%
68	41	102	6884	2300	101	56	715	287	11	7,0	1,04%	0,12%	11,10%	0,90%	4%	2%	0%	0%	1,30	0,78	5	75%	63%	0%
64	49	50	3290	189	51	4	130	14	2	0,3	0,34%	0,01%	1,61%	0,12%	16%	14%	11%	10%	1,22	0,94	2	31%	96%	2%
9	11	746	7074	2898	786	263	167	197	19	17,9	3,26%	0,53%	8,06%	1,50%	0%	0%	0%	0%	0,17	0,21	3	89%	73%	0%
239	173	245	76505	2868	320	17	9079	1038	38	6,0	0,55%	0,08%	6,37%	1,72%	10%	9%	9%	6%	4,57	3,31	5	60%	75%	9%
347	210	2645	274122	12648	790	60	12787	8342	37	39,7	0,17%	0,03%	2,11%	0,20%	3%	5%	3%	2%	6,64	4,02	6	67%	90%	0%
-	13	521	-	1146	-	88	-	3442	-	264,8	-	0,32%	-	3,77%	-	0%	-	0%	-	0,25	2	-	46%	-
85	97	329	4661	7262	55	75	206	962	2	9,9	0,55%	0,33%	1,93%	6,67%	5%	3%	9%	8%	1,63	1,86	3	96%	91%	15%
143	123	91	21987	898	154	7	44724	840	313	6,8	0,75%	0,04%	9,77%	2,63%	1%	2%	0%	0%	2,73	2,35	3	81%	83%	0%

insta/fb' and 'reference insta/fb' display the number of explicit mentions of circularity, sustainability or derivates thereof in hashtags and in posts ely, over the total number of post times 100.

Table 30*Full evidence coding based on text length in posts*

Extensiveness posts	Firm	Evidence
Concise	Island Bakery	Instagram posts: 13 short – 14 medium – 0 long Facebook posts: 29 short – 20 medium – 0 long
	kencko	Instagram posts: 51 short – 121 medium – 11 long Facebook posts: 20 short – 73 medium – 6 long
	DASH Water	Instagram posts: 40 short – 68 medium – 2 long Facebook posts: 12 short – 23 medium – 0 long
	Dizzie	Instagram posts: 27 short – 49 medium – 1 long Facebook posts: 59 short – 73 medium – 6 long
	Gotham Greens	Instagram posts: 183 short – 116 medium – 2 long Facebook posts: 25 short – 24 medium – 0 long
	Grind	Instagram posts: 117 short – 126 medium – 2 long Facebook posts: 3 short – 3 medium – 0 long
	Spudsy	Instagram posts: 231 short – 89 medium – 4 long Facebook posts: 76 short – 48 medium – 4 long
	nibs etc.	Instagram posts: 11 short – 42 medium – 5 long Facebook posts: 15 short – 34 medium – 4 long
	Löfbergs	Instagram posts: 31 short – 36 medium – 1 long Facebook posts: 14 short – 26 medium – 1 long
	Goodafter	Instagram posts: 12 short – 49 medium – 3 long Facebook posts: 33 short – 13 medium – 3 long
	Misfits Market	Instagram posts: 184 short – 159 medium – 4 long Facebook posts: 100 short – 108 medium – 2 long
	Piccolo	Instagram posts: 48 short – 83 medium – 12 long Facebook posts: 45 short – 71 medium – 7 long
Average	Pieter Pot	Instagram posts: 4 short – 126 medium – 13 long Facebook posts: 10 short – 117 medium – 14 long
	Alara	Instagram posts: 1 short – 65 medium – 23 long Facebook posts: 3 short – 69 medium – 3 long
	Black Isle Brewery	Instagram posts: 10 short – 70 medium – 9 long Facebook posts: 23 short – 64 medium – 7 long
	Barnana	Instagram posts: 28 short – 193 medium – 12 long Facebook posts: 59 short – 79 medium – 7 long
	Hopvrac	Instagram posts: 0 short – 115 medium – 11 long

		Facebook posts: 6 short – 113 medium – 11 long
	Imperfect Foods	Instagram posts: 42 short – 221 medium – 33 long
		Facebook posts: 21 short – 134 medium – 20 long
	Misadventure & Co	Instagram posts: 7 short – 121 medium – 27 long
		Facebook posts: 29 short – 102 medium – 27 long
	Oato	Instagram posts: 60 short – 172 medium – 0 long
		Facebook posts: 54 short – 176 medium – 0 long
	Ekofungi	Instagram posts: 0 short – 6 medium – 0 long
		Facebook posts: 1 short – 5 medium – 0 long
	Toast Ale	Instagram posts: 16 short – 118 medium – 27 long
		Facebook posts: 8 short – 79 medium – 16 long
	Fruta Feia	Instagram posts: 1 short – 7 medium – 1 long
		Facebook posts: 3 short – 7 medium – 1 long
	Sirplus	Instagram posts: 5 short – 195 medium – 39 long
		Facebook posts: 38 short – 107 medium – 28 long
	Approved Food	Instagram posts: -
		Facebook posts: 2 short – 10 medium – 1 long
	Green Price	Instagram posts: 19 short – 66 medium – 0 long
		Facebook posts: 21 short – 76 medium – 0 long
Extensive	Renewal Mill	Instagram posts: 7 short – 87 medium – 28 long
		Facebook posts: 4 short – 28 medium – 6 long
	Oé	Instagram posts: 14 short – 138 medium – 65 long
		Facebook posts: 17 short – 139 medium – 53 long

Table 31*Full evidence coding image usage*

Image usage	Firm	Evidence
Low insta low fb	Pieter Pot	63% of insta posts, 61% of fb posts
	Approved Food	- of insta posts, 46% of fb posts
Low insta medium fb	kencko	59% of insta posts, 79% of fb posts
	Grind	34% of insta posts, 83% of fb posts
	Spudsy	61% of insta posts, 80% of fb posts
	Toast Ale	41% of insta posts, 76% of fb posts
	Sirplus	60% of insta posts, 75% of fb posts
Low insta high fb	Barnana	53% of insta posts, 94% of fb posts
	DASH Water	62% of insta posts, 100% of fb posts
	Goodafter	31% of insta posts, 96% of fb posts
Medium insta low fb	Löfbergs	75% of insta posts, 63% of fb posts
Medium insta medium fb	Island Bakery	89% of insta posts, 80% of fb posts
	Dizzie	66% of insta posts, 77% of fb posts
	Renewal Mill	82% of insta posts, 89% of fb posts
	Fruta Feia	89% of insta posts, 73% of fb posts
	Piccolo	81% of insta posts, 83% of fb posts
Medium insta high fb	Hopvrac	83% of insta posts, 90% of fb posts
	Imperfect Foods	74% of insta posts, 91% of fb posts
	Misadventure & Co	79% of insta posts, 96% of fb posts
	nibs etc.	79% of insta posts, 94% of fb posts
	Oé	83% of insta posts, 94% of fb posts
	Misfits Market	67% of insta posts, 90% of fb posts
High insta low fb	Gotham Greens	91% of insta posts, 41% of fb posts
High insta high fb	Alara	93% of insta posts, 91% of fb posts
	Black Isle Brewery	91% of insta posts, 90% of fb posts
	Oato	97% of insta posts, 99% of fb posts
	Ekofungi	100% of insta posts, 100% of fb posts
	Greenprice	96% of insta posts, 91% of fb posts

Table 32*Full evidence coding link usage*

Link usage	Firm	Evidence
Low insta low fb	Barnana	10% of insta posts, 11% of fb posts
	DASH Water	0% of insta posts, 0% of fb posts
	Grind	1% of insta posts, 0% of fb posts
	Spudsy	0% of insta posts, 10% of fb posts
	nibs etc.	2% of insta posts, 2% of fb posts
	Oato	6% of insta posts, 7% of fb posts
	Ekofungi	0% of insta posts, 0% of fb posts
	Goodafter	2% of insta posts, 0% of fb posts
	Sirplus	9% of insta posts, 8% of fb posts
	Piccolo	0% of insta posts, 9% of fb posts
Low insta medium fb	Pieter Pot	0% of insta posts, 21% of fb posts
	Island Bakery	4% of insta posts, 18% of fb posts
	Dizzie	4% of insta posts, 15% of fb posts
	Imperfect Foods	0% of insta posts, 28% of fb posts
	Misadventure & Co	1% of insta posts, 24% of fb posts
	Oé	2% of insta posts, 26% of fb posts
	Toast Ale	2% of insta posts, 27% of fb posts
	Löfbergs	0% of insta posts, 27% of fb posts
	Fruta Feia	0% of insta posts, 36% of fb posts
	Misfits Market	0% of insta posts, 15% of fb posts
Low insta high fb	Black Isle Brewery	9% of insta posts, 65% of fb posts
	kencko	0% of insta posts, 44% of fb posts
	Gotham Greens	0% of insta posts, 69% of fb posts
	Approved Food	- of insta posts, 54% of fb posts
Medium insta low fb	Renewal Mill	14% of insta posts, 3% of fb posts
Medium insta medium fb	Alara	22% of insta posts, 31% of fb posts
	GreenPrice	15% of insta posts, 18% of fb posts
High insta high fb	Hopvrac	63% of insta posts, 62% of fb posts

Table 33*Full evidence coding video usage*

Video usage	Firm	Evidence
Low insta low fb	Alara	7% of insta posts, 8% of fb posts
	Black Isle Brewery	7% of insta posts, 5% of fb posts
	Island Bakery	11% of insta posts, 8% of fb posts
	Gotham Greens	9% of insta posts, 8% of fb posts
	Oato	3% of insta posts, 1% of fb posts
	Ekofungi	0% of insta posts, 0% of fb posts
	Fruta Feia	11% of insta posts, 0% of fb posts
	Approved Food	- of insta posts, 0% of fb posts
	GreenPrice	4% of insta posts, 9% of fb posts
Medium insta low fb	Hopvrac	17% of insta posts, 3% of fb posts
	Imperfect Foods	36% of insta posts, 4% of fb posts
	Misadventure & Co	21% of insta posts, 3% of fb posts
	Renewal Mill	18% of insta posts, 11% of fb posts
	nibs etc.	21% of insta posts, 6% of fb posts
	Oé	17% of insta posts, 3% of fb posts
Medium insta medium fb	Löfbergs	25% of insta posts, 22% of fb posts
	Piccolo	19% of insta posts, 15% of fb posts
High insta low fb	Barnana	47% of insta posts, 6% of fb posts
	DASH Water	38% of insta posts, 0% of fb posts
	Goodafter	69% of insta posts, 4% of fb posts
	Misfits Market	33% of insta posts, 3% of fb posts
High insta medium fb	kencko	41% of insta posts, 16% of fb posts
	Dizzie	34% of insta posts, 20% of fb posts
	Grind	66% of insta posts, 17% of fb posts
	Spudsy	39% of insta posts, 17% of fb posts
	Toast Ale	59% of insta posts, 21% of fb posts
	Sirplus	40% of insta posts, 22% of fb posts
High insta high fb	Pieter Pot	37% of insta posts, 32% of fb posts

Table 34

Coding types of content strategy evidence per company

Content strategy	Firm	Example
Interactive	Pieter Pot	“What do you think of this initiative?” “Read our blog with all facts” “Share your tip for a packaging free future”
	Alara	“Visit for more: https://alara.co.uk/yacon-plant-sweetner ” “Something new is coming soon! Any guesses?” “Have you heard about yacun syrup?”
	Black Isle Brewery	“Comment below your stories of meeting Christine and any photos you have.” “Is it really Christmas without a glass of Colonel Custard beside the woodburner?” “Link in bio.”
	Island Bakery	“Could biscuits be the solution to the current lack of staying power in politics?” “What do you think? Orange or Lemon?” “Where do you eat yours?”
	Barnana	“Who needs tree ornaments when you have tree snacks?” “To enter just like and comment on this video” “What are you thankful for this year?”
	kencko	“Let us know your favorite activities in the comments ❄️” “How do you win? It’s simple, there’s just two rules: like this post, and repost it to your stories!” “Here’s how to enter: 👉 Follow us: kencko rmdyco 🧑🧑 Tag a friend (1 tag = 1 entry)”
	DASH Water	“👉 Follow whiteherondrinks & dashdrinks 👉 Like this post 👉 Tag a friend below who would love this cocktail (the more tags the merrier)” “Leave a box by your front door and send us a photo/tag us in your story.” “Last year thisgirlcanorganise shared a genius idea with us (swipe ➡️).” “To enter: ✨ Follow dashdrinks ✨ Like this post ✨ Tag a friend that would love a DASH tote (each time you tag it's a new entry so go crazy) ✨ For a bonus entry share this post on your story and make sure to tag us so we can see it!” “Gentle reminder we always accept (encourage) pictures of your furry friends with DASH to be sent in 😊 ”
	Dizzie	“Invest now ⬇️ https://lnkd.in/epDDhAG2 ” “Tag us in your refills @getdizzie 👉 ” “What's your fave #dizzie product to order again, and again, and again?” “We gotta know... 🍷 are you more of a classic penne or fun fusilli pasta fan” “🍷 What's in your #dizzie delivery?” “What's your top tip to cut down on food waste?”

Gotham Greens	“Check out the article here: https://bit.ly/3En7IEI” “Currently accepting confessions to our inbox.” “Spinach artichoke dip stuffed peppers—AKA our new default plant-based party app. Find the recipe on our blog!”
Grind	“Tickets still available, head to the website to book 🌟🍷” “Would you try this? Recipe below 🍒👉” “Follow @Grind Like this video Leave a 🧑🍳 emoji on our last 2 posts 🌟 Share to your story for an extra entry! 🍰👉” “Have you tried our winter favourite yet? Head to Grind to get your hands on one! 🍊”
Imperfect Foods	“Want to kick off 2023 with some extra luck?” “Because who doesn't adore a lovely smattering of freckles? 🍷” “Swipe for some of our favorite avo-laden recipes! (link in bio if you're ready to guac your world!)” “Find the full recipe at the link in the comments!”
Renewal Mill	“And, we'd love to see what you make - share your pictures & videos and we'll be sure to share them with our whole climate-friendly baking community.” “Entertain the sustainable way this season! Check our more tips on our website, renewalmill.com, or DM us with your questions / stories / pictures! <3” “Here's how to enter: 1 FOLLOW @moonshotsnacks, @renewalmill, and @justdatesyrup 2 LIKE and SAVE this post 3 TAG 1+ friends in the comments below 4 BONUS ENTRY: Share this post to your IG stories + tag us!”
nibs etc.	“Give it a ❤️ if you want a recipe reel...” “To order yours head to mission kitchen for more info or visit https://www.missionkitchen.shop” “What's your granola activity of choice?” “Who else goes to bed thinking about breakfast...”
Oé	“And you, what is your favorite moment? 🍷” “Are you ready for the end-of-year fiesta? 🍷” “Find this #oésistible recipe on our blog.” “Do you have other ideas to share with us to inspire us?”
Toast Ale	“To find more visit socialenterprise.org.uk or check out our mates at socialenterpriseuk.” “📧 To get in with the green gang, sign up to our newsletter at toastale.com and a slice of something nice will pop into your inbox tomorrow. No pressure to purchase, take your time to read and research with a cold beer in hand of course 🍷❤️.” “Will you help them reach their £5,000 goal? Check out the link in our bio or their profile feedbackorg.”

Löfbergs	“Karin, 58, may not be a morning person, but well up so... What does she do then? Swipe for the answer!” “Click the link to read Anna's tips! 😊” “Whatever it is, we want to be the start of your day, a little push forward, no matter where the day takes you. What are you getting up for? ☕” “Tag someone you want to treat to a Spicy Mocha☕!”
Fruta Feia	“WE HAVE ARRIVED AT SÃO DOMINGOS DE BENFICA! On April 20th we started our 15th delivery point at São Domingos de Benfica Market. There we will be every Wednesday from 5pm to 9pm to receive 350 more consumers and avoid 1.5 tons of fruit and vegetable waste per week.” “Read the report in the link in the bio” “Check the offer in the bio link and, if you fulfill the requirements, send us your application (CV and motivation letter) to lindoservico@frutafeia.pt”
Sirplus	“How did you like this kind of advent calendar? 😊🥳” “Have you ever squeezed your own juice?” “Have you wrapped all the presents yet? 🎁🎄” “Do you still need a last minute gift idea? 🎁🎄”
Misfits Market	“What’s your snack to small talk ratio looking like this year?” “Swipe, then score the recipes now through our link in bio.” “Celebrating #NationalCupcakeDay with a little friendly food debate—what do you call it?”
Approved Food	“We would love to hear about how we have saved you money and on what products?” “For a chance to win: ⭐ like our page ⭐ like this post ⭐ tag a friend in the comments (multiple comments count as extra entries!) ⭐ share this post for an extra entry” “Roll back the years with us today and see how much you can save! https://store.approvedfood.co.uk/latest_products”
GreenPrice	“Do you remember the first branch on Hong Kong Island? Feel free to leave a comment and let us know the answer 😊” “Thank you all for staying with us at 🏃🏃 until today. Leave us a comment and let us know!” “Like this post and leave a comment "Wear two" so that we can choose from next week's Live!” “For more details, please leave a message or DM us for more information.”
Piccolo	“Make sure to tag us in your creations! 🎁” “All you need to do is... Follow mylittlepiccolo hape_uk & childsfarm Like this post Tag your bath time buddy or four (each count as an entry!) For an extra entry share to your story!” “We’ve loved seeing all your Piccolo Christmas creations, don’t forget to tag us in your festive recipes”

Connecting	Pieter Pot	“We listened to your feedback” “Together we saved 4 million packages” “Together we go into the packaging free into the new year with a banger”
	Black Isle Brewery	“Merry Christmas from the Black Isle Team!” “Many of you Black Isle fans will be familiar with our longest serving member of staff, the wonderful Christine. We cannot begin to thank Christine enough for her many years (23!) of hard work, kindness and dedication.” “For several years, we have been working with local schools to bring children out to our brewery farm.”
	DASH water	“Your new conversation starter when you're sat next to the awkward uncle...” “We wish you a DASHing Christmas and a sparkling new year ✨ Thank you for all of your incredible support in 2022.”
	Grind	“Tag yourself as your top order, we’re the oat flat white” “Me during that weird time between Christmas and New Years where I don’t even know what day it is. Coffee, chocolate & watching classics” “We stand with Ukraine. We’ve made a donation to @chooselove - a charity doing whatever it takes to help refugees and displaced people from the crisis in Ukraine.”
	Hopvrac	“Marie is a passionate, always smiling and motivated person with whom we love to work! Find her products on our website!” “🥰 OUR SUPPLIERS ARE AMAZING 🥰” “👏 We wish you a great year in 2023. May it be rich with love and good products!” “🥰 THANK YOU 🥰”
	Imperfect Foods	“If you haven’t, congratulations, you don’t have social anxiety and we’re happy for you. But for the rest of us, a French toast bake is the easy solution breakfast dreams are made of!” “It’s a fun reminder to celebrate the holidays your way. Happy Imperfect holidays!” “This April, traditional grocery stores rejected a truckload of freckled papayas, so our community took them home instead. Because who doesn't adore a lovely smattering of freckles? 🥰”
	Spudsy	“To date, we've saved over 2 million spuds & counting! Join us on our mission to reduce food waste and learn more when you visit the link in our bio.” “If these Cinnamon Churro French Toast Roll Ups don’t get you in the holiday spirit... well, you’re probably the grinch ❄️” “Tis the season for sharing 🥂 Tag a friend you're sharing your spuds with on your next road trip.”
	Misadventure & Co	“We are grateful for the wonderful community that has supported our efforts and look forward to opening again in the new year with more tasty new things for you all to try!” “Want to go out and enjoy a good drink but take it easy on the alcohol?” “I’m sad to announce that as of this

	weekend, I will no longer be part of the Misadventure team. I can honestly say that Misadventure has changed my life in so many incredible ways and it will always have a very special place in my heart.”
Renewal Mill	“Plus, then you have fresh baked cookies for dessert... if they last that long. We won't tell Santa if you sneak a few bites...” “We’re excited to share that @Renewal Mill was included in @wholefoods 2023 Top 10 Food Trends report under the trend "Pulp with Purpose!"” “stay safe & warm fam!” “We’d love to hear what fun ways you are jazzing up your brownie mug cakes! []” “Feeling the winter blues with all these snow storms??” “Whether your young or just young at heart, we hope our products spark your creativity in the kitchen this holiday week! And, we'd love to see what you make”
Löfbergs	“Treat your New Year's guests to an Espresso Tonic and we can guarantee success!” “Don't listen to people who tell you that you can't have the coffee package on display as a shelf decoration. You don't need that kind of negativity in your life.” “Kathrine is stepping up to continue developing the family business.” “Something happy sometimes, something sad sometimes. Because you believe in something, because you don't. Your mother, your job, your dog, a sunny Sunday morning. We all have our reasons and motivations. Whatever it is, we want to be the start of your day.” “
Fruta Feia	“After winning 2 awards - the Environmental Category and the most voted by the public - in the 2020 edition with the FLAW4LIFE project, Isabel Soares (founder of Fruta Feia and coordinator of FLAW4LIFE) joined the jury for the 2022 edition.” “On October 13th we started our 16th delivery point at Arroios Market. There we will be every Thursday from 5pm to 9pm to receive 350 more consumers and avoid 1.5 tons of fruit and vegetable waste per week.”, pictures with people/ the team on them
Sirplus	“Thank you to all the hardworking rescuers and supporters of our mission. 🙌❤️” "Thank you to each savior, you are fantastic and we wish you a happy 2023 🍀" “So we want to congratulate not only Foodsahring but just as much thank every member who is working to save food. You guys are awesome! 🥳🥳”
Piccolo	“It's only the first day of the year but the number of to do lists and dates for the diary are already piling up! We're taking a more laid back approach to resolutions this year and keeping the pressure to a minimum 🙌” “Ohh the Christmas holidays... biscuits for breakfast and cereal for dinner. It really is the most wonderful time of the year (at least until the sugar kicks in!) Check out some of

		@emma.thomas__ holiday snack recipes that help maintain a bit of calm during the chaos that is the Christmas holidays!” “Ahh New Year's Eve...the one evening of the year where we can stay up late and our little ones still end up making more noise than the party guests!”
Promotional	Alara	“Introducing the Chocolate Yacon Granola!” “We would like to introduce to you our new ingredient: yacon syrup” “Alara Product Spread! Fruity Oats Gluten free Muesli. Visit our website to order now; alara.co.uk” “Alara Product Spread! Old Fashioned Oats Porridge. Visit our website to order now; alara.co.uk”
	Black Isle Brewery	“Last orders for Christmas delivery need to be placed by the 19th December.” “A rich, deep, dark export style stout, brewed as a delicious antidote to the impending winter months. “ “BLACKOUT EXPORT STOUT - COMING SOON” “NEW BEER ALERT 🍷🍰 Apparent Magnitude 🍰🍷 Organic Pastry Stout - 9.7% The Apparent Magnitude of a star is how bright it appears from the earth.” “Our classic Scotch Ale is big, bold, deliciously sweet and canned today! Head over to our web shop to fill your fridge 🍷🍰”
	Island Bakery	“SPECIAL OFFER! 15% off our tins while stocks last.” “Dawn is at the Craignure iCentre @visitscotland on Mull today with samples of Island Bakery biscuits and her own Biscuit Press Designs on display.”
	Barnana	“Post holiday cravings can strike at any time! Be prepared with a bag of Organic Crunchy Plantain Nuggets in your favorite flavor.” “Win a case of our bites, ridges, crisps, and nuggets, plus some fun swag!” “Today, we’re giving away a case of our Organic Plantain Crisps! “ “Suddenly—SCOOPS! Paper thin and light as air, Plantain Scoops are classically crispy and fun to eat! Find a bag at costco in the LA area now! Check our link in bio for store locations.” “It’s Cyber Monday, use code CYBER40 today only for 40% off our Plantain Nuggets! They’re the perfect stocking stuffers this holiday season for all the ppl on your “nice” list!”
	kencko	“wake up to 55% off all gumdrops with our mystery box” “It’s our best deal of the season, so grab them before they’re gone” “It’s our biggest giveaway EVER!” “All you need is a touch of freeze-dried magic, and 2.5 servings of fresh produce are transformed into one lightweight, portable smoothie packet that you can take with you absolutely anywhere.” “Tap to shop smoothies - our 60 packs have enough for everyone, and include an extra bottle!”

Dizzie	“Squish, squash. It's dried fruit o'clock! Perfect for a mid day snack.  Dried Mango, Pitted Prunes, Apple Rings, Apricots and Golden Berries” “Comin' in hot  These chocolate D&D's are an all time #dizzie fave” “No more! Refillable crisps are here. We welcomed spudos_crisps lightly salted crisps to our pots, ready to be munched, straight from the jar.” “With tons of household faves - from TP to dish soap  Refill with #dizzie”
Grind	“ GET 20% OFF THE ENTIRE WEBSITE!  The Grind Boxing Day sale is here!  “ “we’re celebrating by giving someone the chance to win EVERYTHING in the video! “ “ We are giving YOU the chance to win a £150 bar tab @ Grind!” “one lucky winner the chance to win the ultimate day out at Battersea Power Station” “Join us as poppycrew sees the Grind x Poppy Crew collaboration IRL!  And what a sight she is     ” “Located on the upper floor of markethalls, you’ll find all your classic Grind favourites in one place   ”
Hopvrac	“A gorgeous local bottle like Souboziane, is always a winner” “At Hopvrac we offer you our delicate chocolate pellets all year around” “One gift idea that always appeals is artisanal cosmetics: from soap to solid shampoo, lip balm or moisturizer, we are lucky to have many local quality manufacturers in our region!”
Spudsy	“This month, we're offering 20% off our delicious vegan snacks, sharing our favorite vegan recipes, and hosting incredible giveaways with other vegan brands! “ “Our Puffs and Fries make the ultimate holiday gift for sweet and savory snackers alike! With 7 different flavors to choose from, you can't go wrong “ “weet potatoes + ranch = salad, right? We think so! Our Zesty Ranch flavor is tangy, bold, and deliciously vegan” “Our spuds are the perfect on-the-go snack for all your busy days out on the town!” “Follow us spudsyfoods on the tok and redeem 10% off your next Spudsy order with the code in our bio”
Misadventure & Co	“Bottle Sale at Misadventure today Friday, December 16th from 5 to 8 at the tasting room! “ “New Cocktail: "Adam & Eve" “We got you covered with Four new fresh mocktails ready for you to try “ “Misadventure is not only a great quality and smooth vodka to add to your bar selection, but it’s also sustainably made and reasonably priced!  ” “Hope you take a little time to relax and enjoy some Misadventure!”
nibs etc.	“We’re also in an array of festive hampers: Oat, Almond & Honey featured in mission kitchen ‘s Gift Hamper [last

	few available 🏃] and Barley, Spelt & Walnut features in #BoroughMarketOnline's Best of Borough Hamper 🎁 " 🎉 GIVEAWAY 🎉 We've teamed up with coconutcollab oddboxldn and dailydoseldn for one of the tastiest giveaways around." " 🎁 EXCITING NEWS 🎁 We are delighted to announce that we are part of the first ever Mission Kitchen Gift Hamper - along with 8 other amazing independent food businesses from the #MissionKitchen community, all lovingly made by up-and-coming food makers." "We'll be giving away 25 breakfast bowls and 25 cheeseboards to the first 50 visitors weareraye this Saturday for FREE." "This means that you get an incredibly deep and rich chocolate flavour, without the sugar hit. This one's for all the granola for breakfast or dessert, dark chocolate lovers in your lives"
Oato	"Plastic packaging has harmful chemicals that leach into drinks, which is why Oato is a perfect alternative! " "I found Oato about 7 months ago and have it delivered by a milk man. I never drink cold drinks but I'm addicted to drinking it straight from the bottle when no ones looking!" - we love this secret confession. " "Crafted for coffee, it'll micro-foam for your latte art 🌿"
Oé	"If you missed the boat to order your wines, we invite you to find them at all our partners in France: wine merchants, grocery stores, specialized stores & of course in your favorite restaurants and hotels. The link is always available in the bio 🍷" "The best way to raise awareness and evangelize our loved ones about environmental issues is by tasting Oé wine !" "4.8 out of 727 reviews 🌟 THANK YOU!" "Doing good with tasteful wines !"
Ekofungi	"You can find us at the stand of the Ministarstvo poljoprivrede , with a special discount for the visitors, during the Fair!" "Another star of our portfolio: Organic Oyster mushroom" "Known as the first and only organic White button mushroom production in Southeastern Europe, we are more than proud what we've achieved so far"
Toast Ale	"Check out our range of planet-saving beers 🍺 at toastale.com and save 10% on your first order by signing up to our newsletter." "SAVE at tasty 20% on our Session IPA and American Pale Ale" "Need a last-minute gift 🎁 for the beer lover in your life? What about a Toast gift voucher? 📧 With our e-gift vouchers you choose the amount and we'll email a virtual card over on your specified date."

	Goodafter	“@lastpad sanitary pad reusable up to 250 times. New addition to our sustainable products section.” “Guys, we have never done a promotion like this. It's a very green promotion because we want our products to get to your homes!” “A simple cloth from hagertyportugal that can be used to clean jewelry and leave it shining. Another discontinued product that is in GoodAfter.”
	Approved Food	“Purchase all 9 products for £13.50 & save 67%! Grab them while you can!” “Freddos are back to 10p for one day only!” “The Approved Food MEGA SALE deals are back with a bang today! 🔥 Get stuck in before they're all gone and see how much you can save!”
Entertaining	Barnana	“Let it snow, let it snow... LET'S SNACK!” “Post holiday cravings can strike at any time! “ “Who needs tree ornaments when you have tree snacks?”
	kencko	“You can find us having a snowball fight and sipping on a pumpkin pie smoothie all holiday season long!” “Grab the snacks... it's time for a holiday movie marathon! Here are some of our favorite holiday movies, as well as their perfect snack and kencko pairings “
	Dizzie	“Taking our favourite reusable cup out for a Monday walk to fill it coffee ☕😎” “We are loving this pantry shot from @thunderhorse8 filled with Dizzie goodies 🍪” “No tricks around here! We're staying in with a pot of our fave Chocolate D&D's 🍷🍷”
	Gotham Greens	“Currently accepting confessions to our inbox.” “Field of dreams—greenhouse edition.” “How to stock the fridge of your dreams” “36 summer salads that'll brighten up your cookout spread”
	Imperfect Foods	“Five foods to eat for good luck in the new year” “meme: a realistic food pyramid” “This Christmas tree @nidd365 made from Imperfect boxes is still one of our favorite DIY holiday decorations to date. “
	Löfbergs	“Don't listen to people who say you can't have the coffee package in front of you as a shelf decoration. You don't need that kind of negativity in your life.” “Treat the New Year's guests to an Espresso Tonic and we can guarantee success! How to do it: Fill half the glass with ice and pour over the desired amount of tonic. Brew a double espresso and pour over. Top with a slice of lemon 🍋” “An iced coffee a day is good for...?”
	Sirplus	“Have you ever pressed juice yourself? There are leftovers from both fruit and vegetables and it is exactly these that the dear katjamathes.de has recycled into delicious muffins. 🍪👏 Recipe:” “Our recipe of the week 😊💚 In our Everyday Box there is always a

		delicious mix of fruit, vegetables, staples and something special 🥰.” “Do you still need a last minute gift idea? 🎁 🌲 Here we have 3 ideas for you that are quick and sustainable!”
	Misfits Market	“What’s your snack to small talk ratio looking like this year?” “We hear some people consider cabbage a lucky New Year’s food, so naturally we had to sharpen up our knife skills.” “If you’re looking for your next over-the-top-impressive baking project, this is it!”
	Piccolo	“Ahh New Year's Eve...the one evening of the year where we can stay up late and our little ones still end up making more noise than the party guests!” “When your BeReal notification goes off just as Father Christmas comes down the chimney 🕸️” “Rumour has it baby grazing boards are the new butter boards!”
External legitimation	Pieter Pot	“Packaging free groceries is the future, and that’s something @ekoplazabio also gets!” “Pieter Pot x Plastic Soup Foundation” “Seepje and Pieter Pot are working together” “our new partner Jimmy Loves Food” “Today new goals and rules are being proposed to reduce packaging waste” “foodwastehack” “Microplastics per sector and polymer type”
	Barnana	“Our founder- Caue Suplicy, meeting some of our growers! Barnana buys bananas and plantains directly from farmer-partners in the Amazon- many of whom are Indigenous women!” “Did you know that Fair Trade chocolate means a lot more than just paying a fair price for cacao? The price we pay for the chocolate that coats our Dark Chocolate Banana Bites funds environmental projects, sustainable farming trainings, economic development, and much more. Buying Fair Trade is an act with a huge ripple effect!” “Our snacks are created through respectful partnerships with smallholder Indigenous farmers in the Amazon. Did you know Indigenous people protect 80% of the world’s biodiversity?* We’ve got a lot to learn! (*World Wildlife Fund)” “In honor of Climate Week (which is going on now) here’s Amber to explain B-corps and why they matter to us at Barnana ❤️”
	DASH Water	“A DASH of deliciousness created by the incredible @bluebellbiscuit 🥰” “We’re proud to be supporting The Felix Project and their Empty Plate Emergency Appeal 🙌 Together we can fill millions of empty plates with nutritious surplus food and help London families eat during the #costoflivingcrisis.” “It’s been just over a year since we launched DASH down under (where we use locally sourced wonky fruit and

	Australian spring water) so we're proud as a peach to now be in colessupermarkets as well as woolworths_au !"
Dizzie	"Waste-free baking with Dizzie 🍌 Bake yourself some comforting chocolate chip & walnut banana bread. A great way to use up sad bananas and with minimal single use packaging!" "We're staying in with a pot of our fave Chocolate D&D's 🍁🍌" "Zero waste is no fright! 🍁👻 Give these eek-oh swaps a try for Halloween" "That's 7 tonnes of plastic packaging, from direct to customer and business orders, that won't need to be recycled or end up in landfill"
Grind	"On the 8th day of the Grind advent, we have created the ultimate festive breakfast with our friends pipandnut! 🍌🍌" "Want to win a luxury one night stay at retreatast and a grind One Machine?" "TAG A PAL in the comments and follow grind for your chance to win the ultimate GRIND & OATLY bundle."
Imperfect Foods	"No wrapping paper? No problem! Use your silver insulated liner from Imperfect Foods for a fun, and upcycled way to wrap gifts!" "You can cook many holiday dishes and freeze them for weeks—and even months—before your guests arrive." "Make your own beeswax wrap! Makes for a buzzworthy zero-waste gift for the earth lovers in your life. Clean up tip- soak anything with wax on it in cold water, then scrape the wax off. 🍌"
Renewal Mill	"We love this Cozy Morning kit because it's the labor of love of so many women. It features our Chai Oat Muffin Mix (made by the women behind @renewalmill & @justdatesyrup) and absolutely delicious coffee beans from the women at @vegacoffeehq!" "We promise your whole house will smell AMAZING with the warm scent of @burlapandbarrel cinnamon - literally holiday cheer in the air!" "1 winner will receive: ❄️: @moonshotsnacks: 3 Pack Variety of Climate-Friendly Organic Crackers" "Women are responsible for up to 70% of all labor that goes into coffee production. But they are too often kept out of decision-making in the marketplace, with limited access to land ownership and official leadership roles." "COP 27, the 27th Conference of Parties (COP27), hosted by United Nations Framework Convention on Climate Change (UNFCCC), started this past Sunday in Egypt with folks from around the world convening to discuss and implement climate change mitigation tactics. Chief amongst them? Fixing the food system."

Toast Ale	“We work with Soil Heroes to provide funding to UK farms that are using nature-friendly farming practices, known as "regenerative agriculture". In short, this creates more carbon drawn down, better water-holding capacity, enhanced biodiversity and improves nutrients in the soil.” “❤️ Our friends at feedbackorg are taking part in the thebiggiveorg #ChristmasChallenge22! For this week only, the money you donate will be doubled, at no extra cost to you.” “That's why we've pulled together the great and the good in our newsletter for Green Friday. In it you'll find a whole host of shout outs and offers for businesses working hard to do things differently - from fellow B Corps to our Social Enterprise pals. Shamless name drops to... iammissmacaroon , reboxed, madebypivot , divinechocolateuk , seachangewine , thegoodwashcompany , greenelftrees , elvisandkresse , youunderwearuk .” “The funds will help us to scale our work to prevent bread waste. To date we’ve upcycled a whopping 2.9 million slices of surplus bread, working with bakeries and sandwich manufacturers in the UK to prevent waste.” “We work with Soil Heroes to provide funding to UK farms that are using nature-friendly farming practices, known as "regenerative agriculture". In short, this creates more carbon drawn down, better water-holding capacity, enhanced biodiversity and improves nutrients in the soil. How? By mimicking nature’s wise ways, which allow natural processes to boost farm productivity and restore the soils.” “Who out there in Instagram-land knows what a social enterprise is? Well, if you want to know keep reading, and if you don't, here's to you anyway for coming this far and hope you have a jolly nice day. 😊 So, where were we? Oh yes. Social enterprises. Clue 1, Toast is one, so they must be pretty epic right?”
Fruta Feia	“we closed September with 4,050 tons of fruit and vegetables saved, thus avoiding the waste of resources spent on their production - soil, energy and water (1780 Olympic pools!) - and putting more than 1.6 million euros in the hands of farmers!” “here's to having avoided wasting 4230 tons of food, 140 soccer fields of soil, 1850 Olympic-sized pools of water, 6060 MWh of energy, and to having avoided the emission of 3765 tons of CO2 eq of greenhouse gases derived from the decomposition of food that is not consumed.” “ ‘For almost a decade that beautiful people eat ugly fruit’ The team from Público's Blue section visited us at the delivery point in Bonfim (Porto) and got to know better our Cooperative's course and operation.”
Misfits Market	“Hit save to make sure you’re storing your veggies right (and reducing at-home food waste as a result!) this

	winter” “That’s right, “winter fruit” isn’t an oxymoron. Click our link in bio to read more about the fruits we’ll be sourcing all season long.” “Not only are latkes a symbolic #Hanukkah food, they’re also an excellent way to use up all kinds of root veggies.” “In our latest installment of #MisfitsMemo: Why are supermarkets fundamentally energy-inefficient?”
GreenPrice	“Every year, 150 million pieces of expired food are sent to landfills in Hong Kong, and more than 1.2 million tons of food are wasted in a year, while the number of hungry people in 2022 is expected to exceed 828 million, equivalent to 10% of the world's population.” “Christmas is supposed to be a universal holiday, but how many people know that Christmas is one of the most wasteful holidays, from gifts, packaging, decorations, and festive parties, all resulting in a lot of waste. The amount of trash generated and thrown away during Christmas is 30% more than normal! “ “According to the guidelines of the Center for Food Safety, food labeled "best before" may not be as good as before after the expiration date, but it is still acceptable for consumption. The U.S. Food Safety and Inspection Service (USDA) recommends that before consuming expired food, the public should use their senses to assess the quality of the food to see if it is safe to eat.”
Piccolo	“Piccolo x Childs Farm x Hape” “To celebrate our brand-new Family Club Partner MICRO SCOOTERS, we've got Christmas day sorted with our complete Piccolo X Micro Scooter bundle.” “Let it goooooo... and enter our ultimate Frozen giveaway with toniesuk!”

		Circularity																							
		Foreground Sustainability				Background Sustainability				Foreground Sustainability				Background Sustainability				Foreground Sustainability				Background Sustainability			
Category	Sub-category	Positioning Website		Positioning Social Media Bio		Positioning Posts		Positioning Hashtags		Extensiveness Posts		Content strategy				Emoji use		Social Media Presence		Frequency				Bombastic Poster	
		1	2	1	2	1	2	1	2	1	2	1	2	3	4	1	2	1	2	1	2	3	4	1	2
Beverage & Food	Beer	x		x		x		x		x		x		x		x		x				x		x	
	Wine	x			x		x			x			x			x		x					x		x
	Spirits	x		x		x			x			x			x		x				x			x	
	Coffee		x		x	x		x		x			x			x		x				x			
	Tea	x			x	x		x			x	x			x			x				x			
	Chocolate	x			x		x		x	x			x				x		x			x			
	Dairy		x	x		x		x		x		x	x	x		x		x				x			
Meat & Seafood	Beef	x			x		x		x		x		x	x	x	x		x		x					
	Pork	x			x		x		x		x			x		x		x			x				
	Chicken		x				x				x											x			
	Fish				x		x		x																
	Shellfish				x	x				x	x														
	Eggs				x		x		x																
	Deli				x		x		x																
Dairy & Eggs	Milk				x		x		x		x		x			x		x							
	Cheese				x		x		x		x		x			x		x							
	Butter				x		x		x		x		x			x		x							
	Yogurt				x		x		x		x		x			x		x							
	Ice Cream				x		x		x		x		x			x		x							
	Cheese Curd				x		x		x		x		x			x		x							
	Eggs				x		x		x		x		x			x		x							
Bakery & Snacks	Bread				x		x		x		x		x			x		x							
	Pastries				x		x		x		x		x			x		x							
	Cakes				x		x		x		x		x			x		x							
	Cookies				x		x		x		x		x			x		x							
	Snacks				x		x		x		x		x			x		x							
	Chips				x		x		x		x		x			x		x							
	Ice Cream				x		x		x		x		x			x		x							
Fast Food	Burgers				x		x		x		x		x			x		x							
	Pizza				x		x		x		x		x			x		x							
	Sandwiches				x		x		x		x		x			x		x							

		Usage of digital marketing tools																
		Image Usage					Link Usage					Video Usage						
		Low insta low fb	Low insta medium fb	Low insta high fb	Medium insta low fb	Medium insta medium fb	Medium insta high fb	High insta low fb	High insta high fb	Low insta low fb	Low insta medium fb	Low insta high fb	Medium insta low fb	Medium insta medium fb	Medium insta high fb	High insta low fb	High insta medium fb	High insta high fb
Success	Firm																	
	Alara							x				x				x		
	Oato							x	x							x		
	Ekofungi							x	x							x		
	Goodafter			x					x								x	
	Misadventure & Co						x			x						x		
	nibs etc.						x			x						x		
	Oé						x			x						x		
	Toast Ale			x						x								x
	Dizzie						x			x								x
	Gotham Greens							x				x				x		
	Approved Food	x										x				x		
	DASH Water				x					x								x
	Renewal Mill						x						x					
	Black Isle Brewery							x				x				x		
	Island Bakery						x			x						x		
	Barnana				x					x								x
	kencko			x								x						x
	Hopvrac						x							x		x		
	Spudsy			x						x								x
	Löfbergs						x					x					x	
	Grind			x						x								x
	Sirplus			x						x								x
	Misfits Market						x					x					x	
	GreenPrice							x					x			x		
	Pieter Pot	x										x						x
	Imperfect Foods							x				x					x	
	Fruta Feia							x				x				x		
Piccolo							x				x					x		

