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Sustainable consumption in the digital world: The role of social media on consumer behavior towards a more sustainable society.

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Summary

This research investigates the impact of social media on consumers' willingness to purchase sustainable goods and services. The scientific contribution of this research lies in the comparison of the effectiveness of different social media advertisements in promoting sustainable consumption and the analysis of the relationship between social media and consumers' willingness to purchase sustainable products. It also examines the factors associated with social media that influence consumers' attitudes and behaviors towards sustainability.

The scientific findings reveal outcomes that provide valuable insights into the complex relationship between social media and sustainable consumer behavior. In contrast to previous studies, the research demonstrates that trust and social media influencers have minimal impact on consumer decisions regarding sustainable purchases. However, it uncovers the positive influence of status and reputation on social media and the information availability on consumer behavior, highlighting the importance of individuals' perception of their social reputation and their access to relevant information in driving sustainable choices.

Furthermore, the research examines the effects of different social media advertisements on sustainable behavior. Interestingly, exposure to advertisements featuring conventional products increases the likelihood of sustainable behavior compared to advertisements solely promoting sustainable products. Additionally, presenting the advertisement for a sustainable product before the advertisement for a conventional product enhances the likelihood of sustainable behavior.

These findings have significant implications for companies seeking to develop sustainability-focused marketing strategies. By understanding the factors that shape consumer attitudes and behaviors related to sustainability and social media, businesses can align their advertising efforts with consumer values and interests, effectively promoting sustainable consumption. Moreover, policymakers and stakeholders can leverage social media platforms to facilitate behavior change towards sustainability, considering the impact of social media on consumer willingness to embrace sustainable goods and services.

Keywords: Consumer behavior, social media, social media marketing, sustainable consumption, sustainability, advertising effectiveness.

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1. Introduction

Increasing concerns about climate change, lack of resources, and environmental degradation are encouraging consumers to choose sustainable products and services. Businesses that want to effectively market and communicate sustainability-related messages to their target audience have both challenges and opportunities as a result of this shift in consumer preferences.

Social media platforms have become effective tools for businesses to interact with consumers and advertise their goods and services in this context. Social media offers significant advantages for encouraging consumers to engage in sustainable consumption because of its broad reach, interactive features, and communication possibilities that are specifically tailored to the target audience.

Although the influence of social media on different kinds of consumer behaviors and attitudes has been studied in previous research, there has been limited study on how social media directly influences the willingness of consumers to buy sustainable goods and services. This study looks at how social media affects consumer willingness to buy sustainable products and services. In today's consumer circumstances, it is crucial for businesses to be able to effectively use social media platforms for sustainable marketing initiatives. Businesses can adapt their advertising strategies to the increasing demand from consumers for sustainability by understanding the relationship between social media and sustainable consumption.

The main objective of this research is to determine the impact of social media on consumers' willingness to purchase sustainable goods and services. The main research question guiding this study is: ***"How does social media influence consumers' willingness to purchase sustainable goods and services?"***

In order to address the research question, we use a theoretical framework that draws on consumer behavior theory, the social impact theory, consumer socialization theory and the sustainability theory. By integrating these theories, we aim to develop a comprehensive understanding of the factors underlying the influence of social media on consumers' willingness to engage in sustainable purchasing decisions.

The data for this study was gathered through an online survey. The survey consisted of a series of statement-type questions and two scenario-based questions related to social media advertisements. The survey was designed to capture participants' attitudes and behaviors regarding sustainable consumption and their exposure to different types of social media

marketing. The survey was distributed through leaflets with QR codes to students at the University of Stavanger and online distribution through social media platforms.

The overall aim of this research is to provide insights into the impact of social media on consumers' willingness to purchase sustainable goods and services. By examining the effectiveness of different social media marketing strategies and identifying the factors that influence consumer behavior, we aim to contribute to the knowledge on the role of social media in promoting sustainable consumption.

It is important to acknowledge the limitations of this research. The findings may however be influenced by certain limitations of this research such as sample characteristics and specific geographical location. Additionally, the research is conducted within a specific time frame and may not capture long-term effects or account for future changes in consumer behavior and social media marketing methods.

This research contributes to the literature on social media, sustainable consumption, and consumer behavior. By investigating the impact of social media on consumers' willingness to purchase sustainable goods and services, this study fills a research gap in understanding the role of social media in promoting sustainability. The findings will provide valuable insights for businesses in developing effective sustainability-focused marketing strategies and for policymakers and stakeholders involved in initiatives promoting sustainable consumption.

The research is structured into eight chapters, including the introduction. Chapter 2 presents the background of the study outlining sustainable consumption, sustainable consumer behavior and social media marketing. Chapter 3 presents a review of relevant literature on consumer behavior, social media marketing, sustainable consumption, and various aspects of social media marketing and sustainability. In Chapter 4, the theoretical positioning of this research is presented. The research methodology is described in Chapter 5 along with the research design, research hypotheses, data collection methods, and sampling techniques and size. Chapter 6 presents the empirical analysis of the study, followed by Chapter 7, which provides a detailed discussion and interpretation of the findings. Chapter 8 concludes the study by summarizing the key findings, discussing their implications, and the limitations of our research and recommendations for future further research.

2. Background

2.1 Understanding sustainable consumption

Sustainable consumption has become a crucial concern in today's world as the world's population continues to increase and resources become scarcer. In addition, the importance of sustainable consumption has grown in recent years as people have become more mindful of the damage that their activities have on the environment. The concept of sustainable consumption refers to the utilization of goods and services that satisfy people's fundamental requirements while having a minimum impact on the environment and the society (Barnes et al., 2016).

To comprehensively understand the significance of sustainable consumption, it is crucial to examine its historical background and the regulatory frameworks that guide its implementation. Sustainable consumption is strongly related to the Sustainable Development Goals (SDGs) of the United Nations, which provide a thorough framework for understanding the broader global development goals associated with sustainability.

In particular, SDG 12: Responsible Consumption and Production emphasizes the promotion of sustainable patterns of consumption and production. It encourages both businesses and individuals to adopt procedures that achieve sustainable management and efficient use of natural resources, reduce waste production through prevention, reduction, recycling and reuse and ensure that everyone has access to the necessary information and is aware of sustainable development and environmentally friendly lifestyles. (United Nations, 2023)

The regulatory frameworks regarding sustainable consumption vary between countries and regions. To encourage sustainable consumption habits, governments and international organizations have set regulations and laws in place. Among the issues addressed by these initiatives are waste management, energy efficiency, sustainable sourcing, and eco-labeling. Through incentives, awareness campaigns, and educational initiatives, regulatory frameworks also attempt to promote an environment that supports sustainable business practices and consumer choices.

2.2 The SHIFT framework: understanding sustainable consumer behavior

In order to identify the most effective approaches for encouraging sustainable consumer behavior, The authors White, Habib, and Hardisty carried out an extensive review of the literature in the fields of marketing and behavioral economics. The authors' proposed SHIFT

framework emphasizes the relevance of employing psychological aspects to influence consumer choices (White et al., 2019). The theory suggests that taking into consideration specific psychological aspects increases consumers' willingness to engage in environmentally friendly behaviors (White et al., 2019). These aspects include social influence, Habit formation, Individual self, Feelings and cognition, and Tangibility (White et al., 2019).

According to the SHIFT framework, social influence plays a crucial role in shaping individuals' attitudes and behaviors towards sustainable consumption. It considers how people are influenced by their social networks, peer groups, and societal norms when making choices related to sustainability. Furthermore, habit formation examines how routines and repeated behaviors help to create sustainable consumption habits. It is possible to implement initiatives to promote more sustainable choices by understanding how habits are created and maintained.

The individual self-perception aspect of the SHIFT framework explores how individuals' identities and values impact their decision-making processes. People are more likely to adopt sustainable activities if they firmly identify as being environmentally conscious. (White et al., 2019). Feelings and cognition include individuals emotional and cognitive reactions to issues associated with sustainability.

Lastly, tangibility addresses the tangible or sensory aspects of sustainable goods or services that affect consumer behavior. People's desire to choose sustainable options can be influenced by things such as eco-label visibility or the perceived value of sustainable alternatives (White et al., 2019).

This framework offers an in-depth foundation for examining the different psychological factors that influence individual choices and can help in the development of successful methods and marketing strategies to encourage sustainable consumption.

2.3 The role of social media in sustainable consumption

Social media can be an effective instrument for raising people's knowledge of environmental problems and motivating them to accept responsibility for their environmental impact. Social media channels are crucial for spreading awareness of environmental issues, especially those related to packaging, recycling, and apparel (Zafar et al., 2021). Based on Arantes (2022), around 6.65 billion people around the world spend an average of two and a half hours a day on social media. Therefore, they don't have to put much effort into sharing and obtaining information on social media (Subramani & Rajagopalan, 2003). It shows the opportunity for organizations, companies and brands to be present on social media and increase sustainability

concern. The potential of social media marketing to reach a wide audience at a low cost has made it more and more popular among businesses (Kaplan & Haenlein, 2010). Furthermore, sharing content via social media is another way for people and businesses to grow their businesses, build online fan communities, and improve consumer engagement. It is clear that social media sharing of information has a growing impact on how consumers behave (Sun & Xing, 2022).

The promotion of sustainable consumption through social media marketing is a relatively new field of study. This field of study has gained significant attention in recent years due to its potential to drive positive environmental and social effects. Social media marketing can affect consumer behavior through informing people about environmentally friendly choices of goods and services, raising awareness of environmental problems and sustainable consumption through influencers in the social media platforms, building trust in the social media community and motivating people to change their behavior to be more environmentally friendly by using the aspects of being a reputable social media user.

Social media has a broad and multidimensional impact on sustainable consumption behavior. Some research suggests that social media can have a favorable impact on consumer behavior in the direction of sustainability. According to Nam et al., (2017) study, social media marketing has a favorable impact on consumers' perceptions of sustainable goods and another study by Chu et al., (2019) indicated that social media marketing has a positive effect on consumers' intention to buy sustainable goods. However, some studies claim that it may not be successful in creating a long-term behavioral change. Therefore, more research is required in this field of study to determine how much social media can influence environmentally friendly consumption.

By examining the historical background, regulatory frameworks, the SHIFT framework, and the role of social media in sustainable consumption, we create a foundation for a comprehensive analysis of how social media can influence consumer behavior and contribute to the growth of a more sustainable society.

3. Literature review

This chapter of the literature review will examine the research available on sustainable consumption in the digital age, with a focus on how social media affects consumer behavior. The chapter will include an overview of the idea of sustainable consumption and its significance in handling major environmental problems worldwide and reviews from relevant

articles on social media and how it affects consumer behavior including both theoretical frameworks and empirical studies.

3.1 Consumer behavior and sustainable consumption

Consumer behavior has been a popular area of research. On the other hand, sustainable consumption is a fairly recent concept that has emerged in response to environmental concerns. Using goods and services that are less harmful to the environment and support sustainable development is referred to as sustainable consumption. The relationship between consumer behavior and sustainable consumption will be addressed in this section of the literature review.

The behaviors and choices that individuals and households make when they buy, utilize, and dispose of goods and services are referred to as "consumer behavior" (Solomon et al., 2014). It is influenced by a number of factors, including environmental, social, cultural, psychological, and personal aspects. Sustainable consumption involves taking the environment's impacts into consideration while making purchases. Same factors that influence consumer behavior also influence it, but environmental concern is given more importance.

Consumers normally have present-focused biases, whereas sustainability is naturally future-focused. Research has shown that people who think about the future impact promote sustainable choices and asking them to focus on future generations can help eliminate present-focused biases. Social influence, including norms of society, social comparisons, and other people's behavior, according to White et al., (2019) significantly influences sustainable behaviors. The adoption of environmentally friendly choices is also influenced by the individual self, which involves combining sustainable actions with individual principles, beliefs, and identity (White et al., 2019). Therefore, marketers can influence consumers to make sustainable decisions by connecting with their feelings through communication and presenting convincing information of the environmental impact consumers actions have (White et al., 2019).

Consumer awareness regarding the environmental effects of goods and services is another aspect that affects sustainable consumption. Customers are more likely to choose sustainably if they are aware of how their decisions affect the environment (Laroche et al., 2001). By being open and honest about the environmental effects of their goods and services, marketers can encourage sustainable consumption.

Although there are several studies proving the positive relationship between different marketing techniques and sustainable consumption, there is still potential to further encourage and support sustainable consumer behavior. The gap between what consumers say and do is likely the biggest challenge for marketers, businesses, public policy makers, and nonprofit groups working to promote sustainable consumption. While more general marketing approaches can be helpful in this area, marketers also require a special set of resources to promote sustainability. Since, sustainability has gained recognition among both consumers and corporations. Many businesses will therefore need to start incorporating sustainability into their marketing efforts.

3.2 Social media marketing

Social media has become an important aspect of our daily lives, and its influence has extended to the business world. Social media platforms such as Facebook, Twitter, Instagram, LinkedIn and others provide an effective way for businesses to connect with their customers and promote their products or services. Social media has become more significant since it is so simple for anyone to generate, publish, and share information with many other people (Leonardi and Vaast, 2017). This review of the literature aims to examine the current level of research on social media marketing and its usefulness in promotional activity.

The meaning of social media marketing provided by Kaplan and Haenlein (2010) is "a series of Internet-based applications that build on the theoretical and technological foundations of Web 2.0 and that enable the creation and exchange of user-generated content." Companies and businesses have rapidly recognized the significance of social media platforms in shaping their tactics and interacting with customers.

Being able to communicate directly with customers is one of the major benefits of social media marketing for businesses. Social networks serve as a gateway to the global audience, allowing brands and organizations to engage and connect with millions of people, creating endless opportunities for the market (Bala & Verma, 2018). By interacting with customers, businesses can better understand their needs and adjust their goods and services to meet those demands.

Based on Jobber & Ellis (2013) Digital marketing tactics are a component of the marketing communication mix and have the ability to repeat a number of traditional and marketing communications elements. It is marketing that involves the stakeholders in the process by using electronic devices including personal computers, smartphones, telephones, and gaming consoles (Jobber & Ellis, 2013).

Social media marketing does, however, also have certain drawbacks. The difficulty in evaluating its effectiveness is a major downside. As stated by Kietzmann et al., (2011) "Measuring the effectiveness of social media marketing is challenging due to the lack of standard metrics." Due to this, businesses find it challenging to calculate the return on investment of their social media marketing activities.

3.3 Digital world and sustainable consumption

The way businesses operate and interact with their clients, customers, and society at large has changed because of digital marketing. Digital marketing serves as an instrument to affect society's attitudes and views as well as a means of better understanding of consumer behavior.

In order to achieve a greater level of sustainability, many studies point to the need for firms to adopt a customer-centric strategy that emphasizes the values, customs, behaviors, and unique characteristics of their target audience. Therefore, targeting consumers that have strong personal norms and values about sustainability or strengthening existing norms through prompting can be successful for marketers.

Consumers that prioritize caring for oneself, one's community, and the environment have given rise to consumer segments that are ethically conscious. People commonly express self-defensive reactions when they realize that their own habits have a harmful influence on the environment because they want to see themselves in a positive light, and they criticize others who are acting in a less sustainable way. According to White et al., (2019) the individual self-aspect in SHIFT is the connection of sustainable behaviors with an individual's values, beliefs, and identity. Consumers are more likely to make sustainable decisions when sustainability aligns with their personal beliefs and sense of self (White et al., 2019). Further, research has shown that in public situations like social media, where other people can see and judge what they do, consumers are more likely to behave in a socially desirable way. When the setting is public or status factors are involved, consumers are more likely to choose sustainable choices

Early personal commitments to behave sustainably can enhance the likelihood of continuing to do so, especially if they are stated in writing in platforms such as social media apps. For sustained behavior change, it may be essential to positively associate sustainable actions with one's self-concept and to protect oneself from self-threatening information

Several studies have been conducted on the relationship between digital marketing and sustainable consumer behavior. One of the main benefits of digital marketing in promoting sustainable consumer behavior is its ability to provide consumers with more information about

sustainable products and services and educate consumers about the benefits of environmentally sustainable goods and the impact they have on the environment. This increased awareness can lead to a higher level of interest in and willingness to buy environmentally sustainable goods and lead to an increase in consumer awareness and understanding of sustainability issues.

A study by Rana and Dwivedi (2020) investigated the impact of social media marketing on consumers' perceptions of sustainability. The study found that social media marketing can positively influence consumers' perceptions of sustainability and their intention to engage in sustainable behaviors.

Another study by Oksanen et al., (2019) explored the role of social media in promoting sustainable behavior. The study found that social media can be a powerful tool for promoting sustainable behavior, as it provides a platform for information sharing and social influence. The study also found that social media can influence consumers' attitudes towards sustainability and their willingness to adopt sustainable behaviors.

According to Singh & Sonnenburg (2012) social media has opened up the opportunity for connections between businesses and consumers regarding green and non-green goods, which has influenced consumers to buy more competitive items. In order to attract customers across digital networks, organizations are attempting to increase their presence on numerous social platforms.

Jain et al., (2020) discussed some factors which affect green consumption behavior in India. The use of social media was found to have the greatest influence on purchase intention. Hajli (2014) studied the impact of social media on consumers in London with 237 respondents through a survey. His findings revealed that social media makes more social interactions that build trust among users and lead to purchase intentions.

Bedard & Tolmie (2018) examined how the use of social media and online interpersonal influence affect the intentions of millennials in the United States to purchase environmentally-friendly products. Data was collected using Amazon's Mechanical Turk service. The study found that social media usage and online interpersonal influence have a strong, positive correlation with green purchase intentions.

According to a study by Bryła et al., (2022) social media can help consumers access information about sustainable products or services that they might not have been able to access

through traditional marketing channels. This increased access to information can lead to more informed purchasing decisions and more sustainable consumer behavior. Digital marketing can be used to create social campaigns that raise awareness about the negative impact of products or services on the environment or society. These campaigns can encourage consumers to make more sustainable choices by highlighting the benefits of environmentally and socially responsible products or services (Arantes, 2022).

Another way digital marketing can promote sustainable consumer behavior is by facilitating peer-to-peer communication. According to a study by Wang and Chen (2020), digital marketing can provide social proof through user-generated content, such as reviews and ratings, that demonstrate the benefits and efficacy of sustainable products. This can help to build trust with consumers, provide a sense of belonging and shared purpose that motivates consumers to make more sustainable choices.

3.4 Aspects of social media and sustainability

3.4.1. Trust

Trust is one of most significant factors in ecommerce (Kim et al., 2005; Morid & Shajari,2012). The emergence of social media has made it possible for people to interact with similar minded peers, develop relationships, and exchange product information with their own network and other users on social media (Hudák et al., 2017). These interactions and online communication among users make social support and it results in trust (Crocker & Canevello, 2008). Because there is a large community of people who routinely share their opinions on the goods and services offered by various retailers, trust is crucial in transactions made on social media (Nadeem et al., 2015).

The role of trust in social media and online activities is important (Hajli, 2014). The social support and trust facilitate the relationship between sellers and users (Hashim and Tan, 2015) and it encourages consumers to use the system again or buy a new product (Bhattacherjee,2001). The existence of interactive online platforms and reviews has a beneficial impact on the intentions and actions of consumers when it comes to making purchases (De Maria & Finotto, 2008).

The literature mentioned above suggests that the impact of trust in social media can be analyzed by considering the interrelationships between various factors. It highlights that trust plays a significant role in social media and can influence users' perceptions at different levels. This implies that trust can influence how users respond to the information they come across

while using social media platforms. When individuals have strong beliefs about trust in social media, they are more likely to pay attention to environmentally friendly posts, comments, or videos. Therefore, we expect a positive relationship between sustainable purchase intentions and trust that is built through social media with getting positive feedback and comment.

3.4.2. Social media influencers

Social media has provided a chance for influencers to play a significant role in marketing. Social media influencers have played a strong role in recent years in spreading sustainable practices among their followers due to the rising interest in sustainable consumption. Social media influencers are those who have a significant number of people following them on social media platforms like Instagram, YouTube and Twitter. They are recognized for their ability to influence the views and behaviors of their audience through their content. Due to their greater ability to reach consumers than traditional advertising methods, social media influencers have grown to be a crucial element in the marketing sector (Kaplan & Haenlein, 2010).

Based on Herrando et al., (2019) the level of trust among users depends on sources they get information from. As influencers share their own experience and engage directly to users, people believe and trust them more compared to brands. Many customers make purchases of specific products because they were previously evaluated by influencers. (Sun et al., 2006).

Influencers on social media have been helpful in encouraging their followers to engage in sustainable consumption. They make use of their position to spread the word about environmentally friendly goods and services, inform their audience about sustainable lifestyle choices, and push environmentally friendly policies. Endorsing environmentally friendly products is one-way social media influencers encourage sustainable consumption. Secondly, social media celebrities also use their platforms to inform their followers about environmentally friendly behaviors. Celebrities' Instagram posts and media broadcasts of environmental documentaries can positively affect consumers' inclination to buy eco-friendly goods (Sun & Xing, 2022). Based on literature review we expect that social media influencers affect consumer behavior positively.

3.4.3. Status and reputation on social media

Every social media user share information and observations about themselves on the platform through their past activities and encounters. Social media platforms have a big impact on how people who support sustainable consumption are seen, both in terms of status and reputation.

Activities and interactions on social media platforms in the form of tweets, uploading status, pictures, videos and comments, re-shares and "likes" creates tags or labels about a particular person. It makes it possible to reveal themselves and form indicators to others on how they feel about you. Users can showcase their eco-friendly decisions using tools like "eco-friendly" hashtags and filters on platforms like Instagram. These tools help foster the development of a user base that is passionate about sustainable consumption and makes it simpler for others to find and follow them. According to Trudel (2019), the study reveals that people choose ecologically friendly products more frequently when they could convey a positive image of themselves by their conduct in a social place.

Overall, the behavior, engagement, and content quality of social media users have a substantial impact on their status and reputation. Social media platforms can give users the chance to establish their reputation and position, but it's crucial for users to be aware of how their online behavior may affect their reputation. Therefore, we predict that the status and reputation of individuals on social media platforms positively influence their engagement in sustainable consumption behaviors.

3.4.4. Information availability

Social networking platforms provide a wide range of information that can affect customer behavior. There are millions of active users on social networking sites like Facebook, Twitter, Instagram, and LinkedIn who express their opinions, experiences, and suggestions on products and services. When making a purchasing decision, consumers increasingly rely on this user-generated content (UGC) as a reliable source of information.

According to the study on the effect of social media on purchase decisions, it is concluded that social media is the most popular information source because of its perceived credibility, usefulness, and convenience. (Yogesh & Yesha, 2014) Moreover, social media evaluations and opinions influence the consumer decision to purchase.

There are several ways to get information on social media platforms that can affect buying decisions. Businesses can promote their products or services on social media, for instance, by using sponsored posts, paid advertisements, or influencer marketing. When individuals are informed that a particular activity has favorable sustainability effects, they are more likely to perceive themselves as environmentally conscious individuals and to make eco-friendly product choices. Making sustainability visible and interactive is important, as highlighted by the SHIFT framework's Tangibility factor (White et al., 2019). Sustainable products, services,

or experiences can become more appealing and promote sustainable behavior through enhancing both visual and psychological features (White et al., 2019).

However, the study conducted by Camilleri et al., (2019) on "Consumers underestimate the emissions associated with food but are aided by labels" clearly acknowledges that changing behavior cannot be achieved only through knowledge. Real-world marketplace variables including perceived behavioral costs, norms, and identities also have an impact on behavior.

Providing information about desired (and undesirable) behaviors and their effects is a fundamental strategy for encouraging consumers to do environmentally beneficial behaviors. Giving consumers the preliminary information, they require about actions and outcomes can be accomplished by making appeals that emphasize why the desired behavior or product is sustainable. However, studies show that treatments that merely provide knowledge are sometimes insufficient to trigger long-lasting, sustainable changes; as a result, combining information with other strategies can be more beneficial. We predict that providing information about sustainable behaviors and products on social media positively influences consumers' environmentally beneficial behaviors.

Building upon the reviewed literature, we develop the following research hypothesis: ***"There is a positive relationship between social media and sustainable consumer behavior***." This hypothesis is supported by previous studies that have demonstrated positive relationship between social media and sustainable consumer behavior (Rana & Dwivedi, 2020; Oksanen et al., 2019). By examining the various aspects of social media, such as trust, social media influencers, status and reputation, and information availability, we aim to provide further insights into the ways through which social media can drive sustainable consumer behavior.

4. Theoretical positioning

4.1 Consumer behavior theory

Research in economics, psychology, and sociology has looked extensively at consumer behavior. Nevertheless, only a limited amount of research has used social media to examine consumers' intentions to make green purchases using suggested behavioral theories. The influence of social media and digital environments on consumer behavior has been a recently growing issue.

According to Silverman, Bachann, and Al-Akharas (2001), today's decision-making is highly impacted by the accessibility and availability of information, therefore it's important to take a

look at the limitations and misunderstandings that hinder prospects from becoming consumers or customers from making repeat purchases (Silverman et al., 2001).

Before making a purchase, customers can immediately access detailed information online. They have actual current market prices and access to suppliers worldwide (Saura et al., 2020). The consumer may select one product to shop for after analyzing the options available according to their selection criteria.

Individual differences and influences include knowledge, value of consumer resources, motivation, know-how, personality, and values. Psychological processes enable the consumer to conduct both information search and alternative evaluation as they engage in information processing, which may result in a purchase decision. This decision may lead to a process of evolving and defines whether the individual will engage in repurchase as they enter the post-purchase stage. The external factor includes information processing, learning, behavior modification, and attitude adjustment.

Social media is regarded to be an effective instrument for boosting consumer engagement because of its widespread use. Companies are constantly looking for innovative ways to connect with customers and influence consumer behaviors, such as brand loyalty and purchase intentions. Social media platforms like Facebook, Instagram, YouTube, and Twitter have seen an increase in activity as a consequence of the evolving technology environment. These platforms have all developed ways for users to connect with and engage with brand-specific content.

A company uses a variety of marketing methods to connect with potential consumers, attract them to visit its website, and then turn website visitors into customers. The volume of website traffic reveals the interest and focus that consumers have on the business. One of the many ways a company can improve consumer attention, which is often measured by website traffic, is through utilizing social media. A business creates opportunities to direct its current and potential customers who belong to the social media site (for example, Facebook page) to its website, thereby increasing consumer attention, by developing instructional contents and by actively engaging with its customers (i.e., focusing on intensity, richness, and responsiveness). Consumer behavior will somewhat control how a company's social media activities will affect its market value.

In addition to having a direct impact on a firm's market value, consumer engagement can also indirectly increase market value by influencing consumer attention. As previously mentioned,

social media not only fosters new business-customer relationships but also publishes those interactions, spreading social contagion. Social contagion will improve the visibility of a company's messages when more consumers comment on and like them on its social media platform. This can raise public awareness of the company and encourage more people to visit its website. In this regard, customer interaction (such as "Likes" and comments) on a business' social media page can serve as a reliable word-of-mouth source.

Compared to information from other sources, people are more likely to trust information that comes from friends or friends of friends. As demonstrated by Kronrod and Danziger, figures of speech in online reviews had a favorable impact on consumers' attitudes toward and choice of hedonistic goods. (Kronrod & Danziger, 2013). Explanatory language in online reviews was examined by Moore, who observed that whether or not users described their actions or reactions had an impact on how helpful they felt the review was. Research by Bart et al., (2014) examined how mobile display ads, which are small and communicate little information, affect customers' views toward brands and their intentions to make purchases. They discovered that while mobile display ads are ineffective for many product categories, they do improve consumer views and intentions for high-involvement, utilitarian products.

It is important to see how different informational and social elements of digital and social settings, such as exposure to other consumers' ideas or choices, or even simply to friends' lives through social media, can influence subsequent behaviors. The decision-making process is influenced by external environmental factors, such as social class, family, culture, situation, and personal influence. The environment has an impact on the consumer's decision-making process because it shapes their personal influence from the beginning of their information search and also serves as a source of information that will have an impact on the overall decision-making process.

The online environment has a significant impact on consumer decision-making because it can start the problem-recognition stage through a consumer's online interactions and continues to have an impact on the entire process up to the post-purchase stage by enabling information search, alternative evaluation, and purchase options. Even social interactions that can affect a consumer's choice to make a purchase are available to them in the internet environment.

4.2 Social impact theory

In today's world people can be in touch on social media and use each other's experience. Consumers seek information from a variety of sources before making purchases such as

Facebook, especially when it comes to products with a high level of participation (Cheong and Morrison, 2008). People join social media to read about other people's product, or brand, experiences, check out the newest collections in various product categories, and seek for technical specifications of their chosen products and brands, among other things (Muntinga, Moorman, and Smit, 2011).

According to the social impact theory, the presence of others can affect a person's emotions, attitudes, and actions (Latane,1981). Social impact refers to a wide range of changes in a person's beliefs, values, behaviors, physiological states, subjective feelings, motives, and emotions that occur due to the actual, perceived, or assumed presence or actions of others. The theory sees society as a dynamic, self-organizing system in which people interact and influence one another's opinions. The impact is a function of three variables:

- Strength: the importance or significance of the source
- Immediacy: closeness between source and receiver
- The number of sources (Latané, 1981).

This theory can be used to examine how social media affects customer attitudes because social media users frequently exchange information about brands, products, and events. The attitude and behavior of the target user who is looking for information and suggestions on social media may change as the number of users sharing their experiences and knowledge about a specific product, brand, or event rises. In order to understand how social media affects consumer behavior, the social impact theory justifies its application (Mir & Zaheer, 2012).

The term "social effect" describes a broad range of psychological state changes that result from the actual, perceived, or inferred presence or activities of others, including feelings, emotions, beliefs, values, and behaviors, whether they are human or animal (Latané ,1981).

According to the theory, the social impact on an individual is determined by the strength, immediacy, and number of people who are the source of that impact. This implies that as the user base of a social network grows, so does the impact on the target person. Social media users frequently post, discuss, and rate information about items or brands to share their experiences with them. On social media, other users' activities, performances, and arguments have the power to entertain, influence, and persuade people (Latané ,1981).

Sayabek et al., (2019) examined the influence of social media on consumers' purchasing decisions. The study found that consumers are more likely to purchase a product if they see positive reviews and comments from others in their social network. This supports the idea that

social impact theory is applicable in the context of social media and that individuals are influenced by the opinions and behaviors of others in their social network.

Berger and Milkman (2012) conducted a study to investigate the influence of social media on the spread of news and information. The research showed that the likelihood of sharing information on social media platforms is influenced by the number of people who have already shared it. This finding supports the idea that social impact theory can be used to explain how information spreads on social media platforms and how individuals are influenced by the behaviors of others in their social network.

Latané (1981) suggested that people are more prone to be influenced by nearby sources than faraway sources, and that the probability of a person responding to social influence rises with number, immediacy, and strength. In addition, Latané discovered that both majorities and minorities can impact opinion using conformity and innovation, respectively.

4.3 Consumer socialization theory

The consumer socialization theory is a psychological theory that describes how individuals take in knowledge, attitudes, and behaviors related to consumption. It is the process through which individuals learn how to become consumers, and it involves a variety of social factors such as family, colleagues, the media, and organizations. According to the theory, social interactions, personal experiences, and cultural norms can all have an impact on how people behave as consumers. The theory also suggests that an individual's continuous interaction with consumer culture begins at a very early age.

Researchers in the field of marketing and consumer behavior have extensively explored the consumer socialization theory. According to Moschis (1985), Consumer socialization is "the process by which young individuals learn skills, knowledge, and attitudes important to their behavior as consumers in the marketplace,"

According to the consumer socialization theory, media is one of the many and main social factors that has a significant impact on consumer behavior. The term "media" refers to all types of communication, such as radio, newspaper, magazines, social media and the internet that are used to convey information or messages to a broad audience. The views and consumption behavior of individuals is significantly influenced by the media. People who consumer similar media content can form common beliefs and values as a result of media exposure (Gerbner et al., 1994).

People can use media to learn more products and services which can affect their decision to make a purchase. Individuals interpret information from media sources in view of their previous experiences and knowledge. (Trumbo & McComas, 2003). As a result, media messages that are in line with a person's existing beliefs are more likely to be regarded as reliable and trustworthy which means that an individual is more likely to believe in an advertisement promoting a brand if they are already aware of the brands reputation and quality. Moreover, the media has the ability to change a person's attitudes about consumption in terms of values and beliefs. Media messages that promote materialistic values may cause people to place a higher priority on material items over other aspects in their lives (Richins & Dawson, 1992).

The theory of consumer socialization is important in today's culture because it helps marketers in understanding how consumers form their attitudes about purchasing. Marketers can use this information and factors that are associated with consumer socialization theory to create strong marketing plans to target specific consumer groups.

4.4 The sustainability theory

The study and development of ideas and frameworks aimed at achieving sustainability, or the capacity to meet the needs of the present without endangering the capacity of future generations to meet their own needs, is referred to as sustainability theory. Environmental science, economics, social science, engineering, and other fields are included in the scope of sustainability theory.

The environmental dimension of sustainability refers to the need to protect and conserve natural resources and ecosystems, such as air, water, soil, biodiversity, and climate, and to reduce human impacts on the environment. The social dimension of sustainability involves promoting social justice, equity, and well-being for all individuals and communities, and addressing issues such as poverty, inequality, health, education, and human rights. The economic dimension of sustainability emphasizes the need to achieve economic growth and development that is environmentally and socially sustainable, through practices such as resource efficiency, circular economy, and green business models (Theis & Tomkin 2015). Sustainable theory is a multidisciplinary approach that seeks to address the challenge of creating a sustainable future for the planet (Schaltegger and Wagner, 2011). Since consumers increasingly consider how their purchases affect the environment, the sustainability theory is clearly evident in current online consumer participation on social media (Bryła et al., 2022).

Figure 1. Conceptualization of theories influencing consumer behavior and sustainable consumption.
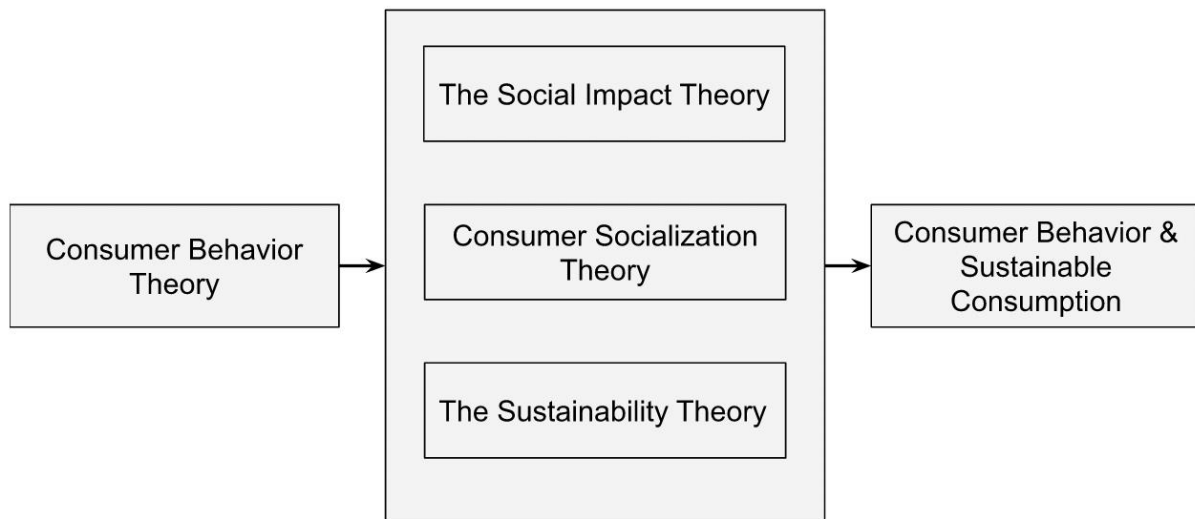
The model highlights how the theories affect consumer behavior, impacting their attitudes, beliefs, and behaviors associated with sustainable consumption. The theories mentioned provide informative explanations of how social media could impact consumer behavior and sustainable consumption.

5. Methodology

This chapter provides an overview of the research design, data collection techniques, target population, sampling strategy, sample size, and data analysis methodologies. The chapter discusses the research design, which involves the use of a survey with scenario-based and statement-type questions to measure consumer attitudes and behaviors pertaining to sustainable consumption. Additionally, the chapter discusses the data collection method, target population, sampling technique, sample size, and the statistical methods employed for data analysis.

5.1 Research design

This study's research methodology was a quantitative research methodology. Data from a sample of consumers were collected through a survey. The survey was made up of scenario type questions with social media advertisements to measure the impact that social media had on sustainable behavior and also consisted of previously written statements that were intended to measure consumer attitudes and behaviors about sustainable consumption. The survey questions were designed to be clear and simple to understand, and a small sample of consumers

were pre-tested as well. The pre-test helped identify any problems with the survey questions and allowed the opportunity to make the changes that were needed.

The intention of the statement-type questions was to examine respondents' behavior toward sustainability and their attitude to engage in sustainable consumption and also their overall opinions on how well social media promotes sustainable consumption. Further, the scenario-based questions were designed to be sent randomly to the respondents.

The questions were two hypothetical situations regarding product advertisements viewed on social media platforms. The respondents were randomly divided into 4 groups, where group 1 respondents received two advertisements promoting sustainable products, group 2 and group 3 received one advertisement promoting sustainable product and a conventional product, however the order of advertisements differed for both groups. Finally group 4 respondents received advertisements that only promoted two conventional products. The scenario questions also included follow-up questions such as the likelihood of clicking the advertisements and rating on the extent each advertisement influences sustainability issues.

The respondents were also given statements to rate regarding the attitude and behavior towards sustainability in order measure how much each respondent engages in sustainable consumption habits. The survey also included demographic questions about the respondents, including age, gender, education level and income level.

Figure 2. Survey design model
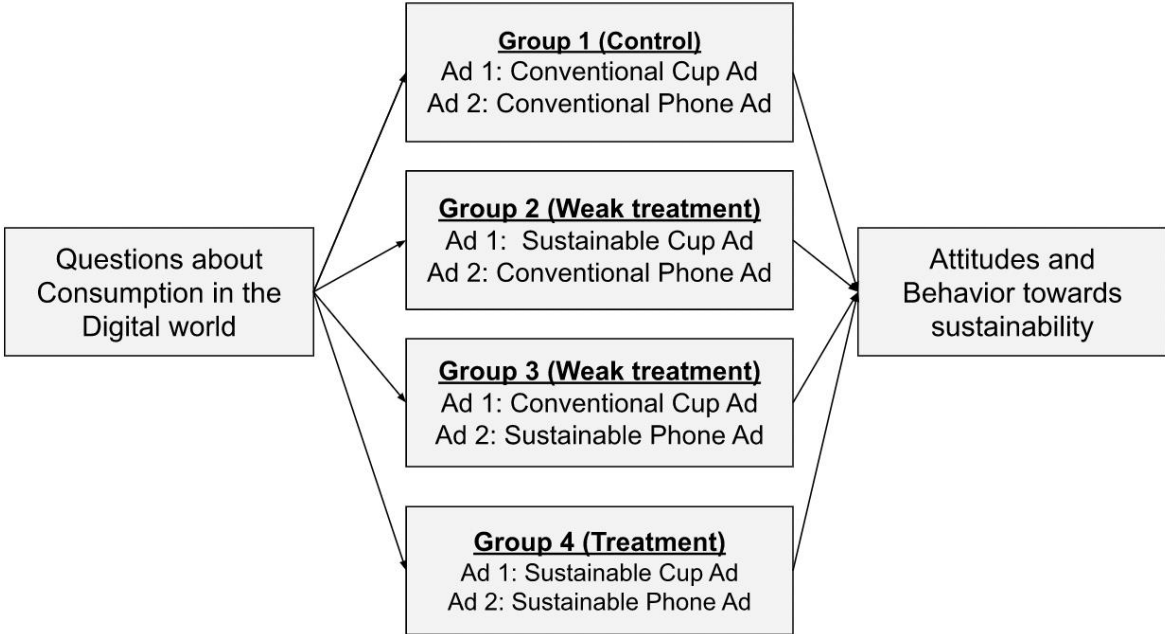
Figure 3. Images of the advertisements used in the survey.

Conventional cup advertisement

Sustainable cup advertisement

Conventional phone advertisement

Sustainable phone advertisement

5.2 Research hypothesis

The research hypothesis in this study is stated as follows:

H1: There is a positive relationship between social media and sustainable consumer behavior.

5.3 Data collection

The data for this study was gathered through an online survey. The survey included a set of statement type questions and two scenario-based questions (social media advertisements). To collect responses, leaflets were designed and distributed to students at the University of Stavanger. The leaflets included a QR code, that when scanned took the respondents directly to the online survey. The use of QR code made it easier and convenient for respondents to

participate in the survey. The leaflets were also designed in a way to attract consumers' attention and communicate the importance of their opinions on sustainable consumption in the digital world. Additionally, the survey was circulated online through social media platforms such as Facebook and LinkedIn. Participants for the study were drawn using the snowball sampling method. The initial respondents were communicated through social media, and then they were asked to share the survey with their social network. The sample population therefore expanded to include more people apart from the initial group of participants. With the use of this technique, it was possible to make sure that the data gathered and the sample population were relevant and informative.

5.4 Target population

The target population for this study are individuals who use social media platforms and engage in online shopping. The study aimed to target individuals of different age, gender, education levels and income levels to obtain a broad sample. Moreover, the study was conducted among respondents who were located in Norway.

5.5 Sampling technique and size

The sample size was determined by the number of participants who completed the survey. To ensure the statistical significance of the data gathered, we obtained a sample size of 170 participants for this study.

5.6 Data analysis

The statistical software application R studio was used to analyze the data. The key characteristics of the sample population were described using descriptive statistics, and the research hypotheses were tested using inferential statistical techniques. The relationship between social media and sustainable consumption behavior were statistically analyzed using a variety of methods, such as the logistic and linear regression analysis, paired sample t-test, Wilcoxon rank sum test, and Pearson's chi-squared test. These tests were conducted to examine the relationship between the variables associated with social media and sustainability and to analyze the differences in click likelihood ratings and sustainability extent ratings between the different advertisement groups.

6. Empirical analysis

The empirical analysis was carried out to explore the relationship between sustainable social media and sustainable consumer behavior and to test the research hypotheses. The data analysis was run using the statistical program R Studio. We begin with the use of descriptive statistics to highlight the primary characteristics of the sample population, after which inferential statistical methods were used to test the research hypotheses.

6.1 Descriptive statistics

An overview of the sample population and all the variables for the research is presented using descriptive statistics. In order to understand how the sample had been put together, the respondents' demographic characteristics-including age, gender, education, financial situation and employment were considered. Additionally, the statements associated with attitudes and behaviors in sustainable habits were calculated using descriptive statistics.

Table 1. Descriptive statistics of sample characteristics

Participant general information %				
Gender		**Employment**		
Female	56.62	Employed full time		31.62
Male	41.18	Employed part time		19.85
Prefer not to say	2.21	Other		4.41
Age		Student (with or without employment)		44.12
Below 20	0.74	**Financial Situation**		
20-29	41.18	Extremely challenging		7.35
30-39	36.76	Extremely easy		17.65
40-49	6.62	Neither easy nor challenging		23.53
50-59	11.76	Somewhat challenging		19.85
Above 60	2.94	Somewhat easy		31.62

6.1.1 Overview of variables

Table 2. Descriptive statistics of sustainable behavior statements.

Items	Responses		Statistics	
When shopping,	Disagreement	Agreement		
(1-Strongly disagree, 5-Strongly agree)	(1-3)	(4-5)	Mean	S.D.
I deliberately check products for environmentally harmful ingredients	49.06	76.27	1.82	1.48
I deliberately choose products with environmentally friendly packaging	56.38	63.64	2.06	1.64
I'll prefer to buy sustainable products even if they are more expensive than others	53.21	66.04	1.75	1.60
I check environmental and fair trade label before buying the products	57.27	69.09	1.71	1.56

Table 3. Descriptive statistics of sustainable attitude statements.

Items	Responses		Statistics	
Sustainability and Environmental issues	Disagreement	Agreement		
(1-Strongly disagree, 5-Strongly agree)	(1-3)	(4-5)	Mean	S.D.
I believe that sustainable purchasing by me will help in reducing wasteful use of natural resources	7.14	51.85	3.33	1.17
I am very knowledgeable about environmental and social issues	5.06	66.67	3.27	0.99
I know where I can find products that create less wastage	17.78	88.00	2.60	1.03
I have knowledge about the sustainability symbols used on product packages	16.67	69.05	2.94	1.17
I feel good about myself when I am involved in sustainable purchasing	9.09	54.69	3.55	1.14
Humans are seriously abusing the environment	18.18	41.67	4.01	1.14
The Earth has plenty of natural resources if we just learn how to develop them	13.46	40.28	3.72	1.20
The balance of nature is strong enough to cope with the impacts of modern industrial nations	33.72	52.17	2.50	1.27
The so-called 'ecological crisis' facing humankind has been greatly exaggerated	38.64	69.23	2.43	1.26
Human ingenuity will ensure that we do not make the Earth unlivable	16.05	71.88	2.94	1.09

6.1.2 Scenario study analysis

Table 4. Ad Scenario order and ratings for click likelihood and sustainability impact.

Scenario Order	Average rating		Average rating	
	Ad 1		Ad 2	
	Likelihood of clicking on the ad	Extent on sustainability	Likelihood of clicking on the ad	Extent on sustainability
Ad 1:Conventional cup Ad 2:Conventional phone	4.36	4.55	3.70	2.36
Ad 1:Conventional cup Ad 2:Sustainable phone	3.44	4.18	2.62	3.35
Ad 1:Sustainable cup Ad 2:Conventional phone	3.29	4.48	3.64	2.57
Ad 1:Sustainable cup Ad 2:Sustainable phone	3.17	4.43	3.17	3.03

6.2 Inferential statistics

The effect of social media on consumers' willingness to buy sustainable goods and services was analyzed using inferential statistics. In order to assess both the significance and the direction of the effects of the four independent variables (trust, social media influencers, status on social media and information availability), we compare the findings from logistic regression and linear regression models.

Statistical analysis of variables

6.2.1 Logistic Regression and Linear Regression Analysis

In the logistic regression analysis, we used the variable "sustainability" as the binary dependent variable to examine the impact of social media on consumers' willingness to buy sustainable goods and services. To enhance the interpretability, we categorized the sustainability ratings as; 1, 2 and 3 were considered as 0 and the ratings 4 and 5 were grouped as 1.

$$\log (p / (1 - p)) = \beta_0 + \beta_1 T + \beta_2 SMI + \beta_3 S + \beta_4 IA$$

Equation 1. Logistic Regression model

P represents the probability of the dependent variable sustainability, which takes values between 0 and 1.

β_0 represents the intercept of the dependent variable when all the independent variables are zero.

β_1, β_2, β_3, and β_4 represent the coefficients or slopes associated with each independent variable.

T - Trust, SMI - Social Media influencers, S - Status, IA - Information availability.

We also conducted a linear regression analysis to further investigate the relationship between predictor variables and sustainability. Sustainability is considered as a continuous dependent variable in this analysis.

$$Y = \beta_0 + \beta_1 T + \beta_2 SMI + \beta_3 S + \beta_4 IA$$

Equation 2. Linear Regression model

Y represents the dependent variable, "Sustainability".

β_0 represents the intercept or the value of y when all the independent variables are zero.

β_1, β_2, β_3, and β_4 represent the coefficients or slopes associated with each independent variable.

T - Trust, SMI - Social Media influencers, S - Status, IA - Information availability

Table 5. Effect of independent variables on sustainability measured by logistic and linear regression.

Variable	Logistic Regression		Linear Regression	
	Estimate	p-value	Estimate	p-value
(Intercept)	-5.9121	0.0234	2.35631	<0.001
Trust	-0.8237	0.0577	-0.07327	0.287
Social Media Influencers	-0.3007	0.3740	-0.07422	0.202
Status	0.8466	0.0216	0.25917	<0.001
Information availability	1.2790	0.0753	0.09803	0.311

Trust

Logistic Regression: In the logistic regression analysis, trust has a negative relationship with sustainability, as indicated by the estimated coefficient of -0.8237 ($p = 0.0577$). However, this relationship is not statistically significant ($p > 0.05$), suggesting that trust in social media does not significantly influence consumers' willingness to buy sustainable goods and services.

Linear Regression: In the linear regression analysis, trust also shows a weakly negative relationship with sustainability, with an estimated coefficient of -0.07327 ($p = 0.287$). However,

similar to the logistic regression, this relationship is not statistically significant, indicating that trust does not have a significant impact on sustainability.

Social Media Influencers

Logistic Regression: The coefficient for social media influencers is -0.3007 (p = 0.3740) in the logistic regression analysis, indicating a weak negative relationship. However, this relationship is not statistically significant, suggesting that the influence of social media influencers on consumers' willingness to buy sustainable goods and services is not supported by the data.

Linear Regression: Similarly, in the linear regression analysis, social media influencers show a somewhat negative relationship with sustainability, with an estimated coefficient of -0.07422 (p = 0.202). However, this relationship is not statistically significant, implying that the impact of social media influencers on sustainability lacks statistical support.

Status

Logistic Regression: The logistic regression analysis reveals a significant positive relationship between status and sustainability, with a coefficient of 0.8466 (p = 0.0216). This suggests that consumers' perception of status and sustainability positively affects their willingness to buy sustainable goods and services.

Linear Regression: The linear regression analysis also confirms a statistically significant positive relationship between status and sustainability, with a coefficient of 0.25917 (p < 0.001). This supports the notion that consumers' perception of status and sustainability positively influences sustainability.

Information Availability

Logistic Regression: The logistic regression analysis shows that information availability has a positive relationship with sustainability, as indicated by the estimated coefficient of 1.2790 (p = 0.0753). However, this relationship is not statistically significant, suggesting that although information availability may have a positive influence on consumers' willingness to buy sustainable goods and services, further evidence is required to establish its statistical significance.

Linear Regression: Similarly, the linear regression analysis reveals a positive relationship between information availability and sustainability, with an estimated coefficient of 0.09803 (p

= 0.311). However, this relationship is not statistically significant, indicating that the impact of information availability on sustainability lacks statistical support.

Comparison and interpretation

We observe some similarities and differences between the results of logistic regression and linear regression models. Both models show that status has a favorable and statistically significant impact on sustainability. However, neither model significantly affects trust, social media influencers, or information availability. It is also important to note that the two models have different interpretations of the coefficients.

Overall, our results indicate that status on social media is a significant aspect in influencing consumers' willingness to buy sustainable goods and services. However, more investigation is needed to assess the impact of trust, social media influencers, and information availability as these variables did not have a significant impact in our analysis.

Further, these findings contribute to a deeper understanding of the relationship between factors associated with social media and consumers' willingness to adopt sustainable goods and services. Notably, it is important to acknowledge that the non-significant relationships observed in both regression analyses may be influenced by factors such as sample size, limitations in measurement, or unaccounted variables.

Statistical analysis of scenario study

Respondents rated their likelihood of clicking on the advertisement and the extent to which the advertisement made them think about sustainability for each scenario (conventional cup advertisement, sustainable cup advertisement, conventional phone advertisement & sustainable phone advertisement). The analysis of the scenario study included paired sample t-tests, Wilcoxon rank sum tests and Pearson's chi-squared tests, to compare the click likelihood ratings and sustainability extent ratings between different advertisement groups.

6.2.2 Paired Sample T-Tests

The paired sample t-tests were used in the analysis to examine the differences between two sets of paired observations: advertisement 1 and advertisement 2. These tests aimed to determine whether there were statistically significant differences in the means of click likelihood ratings and sustainability extent ratings, which would indicate variations in the effectiveness of conveying sustainability messages through different advertisements. By comparing the mean differences, t-values, and p-values obtained from the tests, it was possible to assess the

significance of the observed differences and draw conclusions regarding the impact of different advertisements on click likelihood and sustainability extent.

Summary of paired sample t-tests results;

- Ad 1: Conventional Cup Ad & Ad 2: Conventional Phone Ad

	Click likelihood rating		Sustainability extent rating	
	Conventional cup	Conventional phone	Conventional cup	Conventional phone
Mean	3.895	3.671	4.358	2.402
t-value	0.515		4.532	
p-value	0.608		2.514046e-05	

The paired sample t-tests results of click likelihood ratings, Ad 1 (Conventional Cup) has a mean likelihood rating of 3.895, whereas Ad 2 (Conventional Phone) has a mean likelihood rating of 3.671. The likelihood ratings for the two advertisements do not significantly differ, according to the t-value of 0.515. Further, the p-value of 0.608 is higher than the significance level of 0.05 therefore there is no significant difference in the click likelihood ratings of these two advertisements.

Regarding extent ratings, Ad 1 (Conventional Cup) has a mean extent rating of 4.358, whereas Ad 2 (Conventional Phone) has a mean extent rating of 2.402. The extent ratings for the two advertisements differ significantly, as indicated by the t-value of 4.532. With a p-value of 2.514046e-05, which is significantly less than 0.05, there is a difference in the extent to which the sustainability message is conveyed between these two advertisements.

- Ad 1: Sustainable Cup Ad & Ad 2: Conventional Phone Ad

	Click likelihood rating		Sustainability extent rating	
	Sustainable cup	Conventional phone	Sustainable cup	Conventional phone
Mean	3.149	3.671	3.149	2.403
t-value	-1.097		2.425	
p-value	0.277		0.018	

The average likelihood rating for Ad 1 (Sustainable Cup) is 3.149, and Ad 2 (Conventional Phone) is 3.671. The p-value is 0.277, and the t-value is -1.097. Since the p-value is greater

than the significance level of 0.05, there is no significant difference in click likelihood ratings between the two advertisements.

The mean extent rating for Ad 1 (Sustainable Cup) is 3.149, while for Ad 2 (Conventional Phone) is 2.403. The p-value is 0.018, and the t-value is 2.425. There is a significant difference in sustainability extent ratings between the two advertisements because the p-value is below the significance level of 0.05. This highlights that, compared to the conventional phone advertisement on social media, the sustainable social media cup advertisement has a higher influence on sustainability.

- Ad 1: Conventional Cup Ad & Ad 2: Sustainable Phone Ad

	Click likelihood rating		Sustainability extent rating	
	Conventional cup	Sustainable phone	Conventional cup	Sustainable phone
Mean	3.895	2.910	4.358	3.134
t-value	2.140		2.342	
p-value	0.036		0.022	

The mean likelihood rating of Ad 1(Conventional cup) is 3.895 and Ad 2 (Sustainable Phone), it is 2.910. The t-value of 2.140 shows a significant difference between the two Advertisements. The p-value of 0.0360, which is lower than the significance level of 0.05, indicates that the difference in click likelihood ratings between the two advertisements is statistically significant.

In Ad 1 (Conventional Cup), the mean sustainability extent rating is 4.358, whereas in Ad 2 (Sustainable Phone), it is 3.134. The two advertisements differ significantly, as shown by the t-value of 2.342, which is significant and p-value of 0.022 which is below the significance level of 0.05. In this case, the conventional cup advertisement received considerably higher ratings for its sustainability extent than the sustainable phone advertisement, both in terms of click likelihood rating and sustainability extent.

- Ad 1: Sustainable Cup Ad & Ad 2: Sustainable Phone Ad

	Click likelihood rating		Sustainability extent rating	
	Sustainable cup	Sustainable phone	Sustainable cup	Sustainable phone
Mean	3.149	2.910	3.149	3.134
t-value	0.505		0.0321	
p-value	0.615		0.975	

The mean likelihood rating for the Ad1 (Sustainable Cup) is 3.149, whereas for the Ad 2 (Sustainable Phone), it is 2.910. The t-value of 0.505 indicates no significant difference between the two advertisements. Additionally, the p-value of 0.615 suggests that the difference in likelihood ratings between the two advertisements is not statistically significant.

In terms of the sustainability extent rating, the mean rating for Ad 1 (Sustainable Cup) is 3.149, while for the Ad 2 (Sustainable Phone), it is 3.134. The t-value of 0.032 suggests no significant difference between the two advertisements. Moreover, the p-value of 0.975 indicates that the difference in sustainability extent ratings between the two advertisements is not statistically significant. Therefore, based on these results in this case, there is no significant difference in likelihood ratings or sustainability extent ratings between the Sustainable Cup Advertisement (Ad 1) and the Sustainable Phone Advertisement (Ad 2).

6.2.3 Wilcoxon rank sum test

The Wilcoxon rank sum test is conducted to assess whether there are significant differences in ratings between the control group (exposed to conventional cup and conventional phone ads) and the treatment group (exposed to sustainable cup and sustainable phone ads). The test statistic (W) and the corresponding p-value are obtained to determine if there is evidence of a significant difference between the groups in terms of click likelihood or sustainability extent.

- Analysis of the click Likelihood ratings between the control group and treatment group

Control Group: Conventional Cup Ad & Conventional Phone Ad
Treatment Group: Sustainable Cup Ad & Sustainable Phone Ad
Test Statistic (W): 10416
P-value: 0.02234

The click likelihood ratings between the control group and the treatment group are compared in this test. The test statistic (W) is 10416, and the p-value is 0.02234. Based on the alternative hypothesis, there is evidence to suggest that there is a significant difference in the click likelihood ratings between the two groups.

- Analysis of the sustainability extent ratings between the control group and treatment group.

Control Group: Conventional Cup Ad & Conventional Phone Ad
Treatment Group: Sustainable Cup Ad & Sustainable Phone Ad
Test Statistic (W): 9297.5
P-value: 0.6113

The test compares the sustainability extent ratings between the control group and the treatment group. The test statistic (W) is 9297.5, and the p-value is 0.6113. Based on the alternative hypothesis, there is no significant evidence to suggest a difference in the sustainability extent ratings between the two groups.

6.2.4 Pearson's Chi-squared test

In this analysis, the Pearson's Chi-squared test was used to examine the relationship between sustainability extent ratings and sustainable attitudes and behavior ratings for both the control group and treatment group. The test statistic and the associated p-value were calculated to determine the strength of the association. If the p-value is below a predetermined significance level, it suggests that there is evidence of a significant relationship between the variables. However, if the p-value is above the significance level, as observed in this analysis, it indicates that there is no significant association between the sustainability extent ratings and sustainable attitudes and behavior ratings.

- Analysis between control group sustainability extent ratings and sustainable attitudes and behavior.

The Pearson's Chi-squared test was conducted on sustainable attitudes and behavior ratings and the ratings given on the extent to which the control group advertisements (conventional cup advertisement and conventional phone advertisement) made them think about sustainability.

The test statistic was calculated as 33.192 with 40 degrees of freedom. The p-value associated with the test statistic is 0.7684.

Based on the results, we do not have sufficient evidence to reject the null hypothesis. This suggests that there is no significant association between the variables `sustainability extent ratings on the control group` and `sustainability attitudes and behavior ratings`.

In summary, the analysis does not provide evidence of a significant relationship between the sustainability extent ratings given in the control group advertisements and the sustainable attitudes and behavior ratings based on the Pearson's Chi-squared test.

- Analysis between treatment group sustainability extent ratings and sustainable attitudes and behavior.

The Pearson's Chi-squared test was performed on the sustainable attitudes and behavior ratings and the ratings given on the extent to which the treatment group advertisements (sustainable cup advertisement and sustainable phone advertisement). The test statistic calculated was 50.09 with 40 degrees of freedom. The corresponding p-value is 0.1317.

Based on the results, we do not have sufficient evidence to reject the null hypothesis. This suggests that there is no significant association between the variable's sustainability extent ratings on the treatment group` and `sustainability attitudes and behavior ratings`.

In summary, the analysis does not provide evidence of a significant relationship between the variables based on the Pearson's Chi-squared test.

7. Findings and discussion

The research study's findings are presented and discussed in this chapter, which focuses on the hypothesis and comparing the findings to previous literature.

By utilizing logistic and linear regression models, we conducted a comprehensive analysis of how the factors such as trust, social media influencers, status on social media, and information availability impact sustainable consumer behavior. The findings indicated that trust and social media influencers did not have significant effects on consumers' willingness to buy sustainable products. Previous researchers (Hajli, 2014; Zafar et al., 2020; Wheaton et al., 2016) emphasized the significance of trust in social media environments and proposed that it can serve as a strong motivator for engaging in pro-environmental actions. However, according to previous research conducted by Dutta and Bhat in 2016, the connection between trust and

behavioral outcomes can differ depending on cultural factors. According to Conick (2018), influencers are perceived to be more trustworthy by consumers compared to other online sources. This aligns with previous research by Freberg et al., (2011) which emphasizes the growing trustworthiness of influencers as reliable sources in the digital space. Furthermore, a study conducted by Berger and Keller Fay Group (2016) indicated that influencers were perceived to possess greater credibility and knowledge, leading consumers to express their willingness to follow their recommendations.

Nevertheless, the hypothesis that there is a positive relationship between social media and sustainable consumer behavior was partially supported by our findings in terms of the positive effects of status on social media and information availability on consumer behavior towards sustainability. This implies that individuals' perception of their social standing within the online community and the availability of relevant information positively contribute to their engagement in sustainable behaviors. According to (Sivapalan et al., 2021) it has been stated that over 73% of individuals who follow social media accounts tend to endorse and be influenced by the viewpoints expressed by their peers. This suggests that social media does have a substantial impact on consumer attitudes and behaviors.

Further, to investigate the hypothesis that there is a positive relationship between social media and sustainable consumer behavior. The respondents were randomly assigned to four different advertisement groups in the survey with scenario-based questions: Group 1 received advertisements promoting conventional products (control group); Groups 2 and 3 received one advertisement each promoting a sustainable product and a conventional product (with the order of the advertisements varying); and Group 4 received advertisements promoting only sustainable products (treatment group).

Comparatively to the other groups, Group 1 (control group), which was only exposed to advertisements for conventional products, has shown an increased likelihood for sustainable behavior. This result contradicts the initial hypothesis and suggests the possibility that exposure to conventional product advertising may have positively impacted consumer behavior in terms of sustainable consumption. To investigate the underlying causes of this unexpected result, more research is necessary. Moreover, in comparison to the other groups, Group 4 had a considerably lower likelihood to engage in sustainable behavior while having provided advertisements only with the sustainable products. Possible explanations for this outcome may include a lack of perceived reliability in advertisements for sustainable products, or additional external factors that were not taken into consideration in this study.

However, in the analysis of the impact of mixed advertisements (for conventional and sustainable products) on sustainable behavior. Groups 2 and 3 were shown advertisements for both conventional and sustainable products, with a difference in the order of the advertisements between the two groups. According to the analysis, the respondents' likelihood of engaging in sustainable behavior was not significantly impacted by the order of the advertisements. However, it was shown that when the advertisement for the sustainable product was presented before the advertisement for the conventional product, there was a greater likelihood of sustainable behavior. This result suggests that an initial exposure to a sustainable product advertisement can have a greater impact on consumers' subsequent behavior.

8. Conclusion

In conclusion, the research aimed to examine how social media impacts the willingness of consumers to buy sustainable products and services. The findings, revealed both expected and unexpected results and shed light on the complex relationship between social media and sustainable consumer behavior. The study provided insight into the variables influencing consumer attitudes and behavior in relation to sustainability in the context of social media.

The results challenged previous studies on the impact of social media influencers and trust on consumer willingness to buy sustainable products, emphasizing the need for further research on the contextual and cultural elements influencing this relationship. The findings did, however, provide support to the claim that consumer behavior toward sustainability is significantly influenced by social media status and information availability. The study highlighted the significance of individual perceptions of their social media status and their access to useful information for developing sustainable attitudes and behaviors.

Additionally, the research examined the influence of various social media advertisements on sustainable consumer behavior. Although the order of the advertising did not significantly change consumers' willingness to engage in sustainable behavior, the research revealed that initial exposure to sustainable advertisements had a greater impact on potential sustainable consumer behavior. The study therefore emphasizes the importance of strategically positioning sustainable advertising in order to effectively impact sustainable consumer behavior.

This research holds significant business and policy-related implications. The findings provide businesses with useful information on how to create marketing strategies focused on sustainability that are in line with consumer values and interests. Understanding the effect of social media on customer willingness to embrace sustainable goods and services will help

policymakers and stakeholders make optimal use of social media platforms to encourage behavior change toward sustainability.

While this research contributes to literature on consumer behavior, sustainable consumption, and social media, it is essential to acknowledge its limitations. The study had limitations in its capacity to generalize because it was geographically restricted and used a limited sample size. Furthermore, factors that can affect sustainable consumer behavior, such as personal views, peer pressure, and product cost, were not strictly explored. Future research might investigate additional variables and factors that may influence in order to further clarify the relationship between social media and sustainable consumer behavior. Alternative study methods and larger and diverse samples may be used to have a fuller understanding of how social media affects sustainable consumption.

In summary, this research contributes to our understanding of how social media can impact consumers' willingness to make purchasing goods and services that are sustainable. This study addresses a research gap and provides valuable information for companies, policymakers, and stakeholders interested in promoting sustainable consumption by examining the effectiveness of different social media advertisements and identifying influential factors associated.

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Appendices

Appendix 1: Distribution of independent variables among respondents

Distribution of independent variable among respondents: Information availability
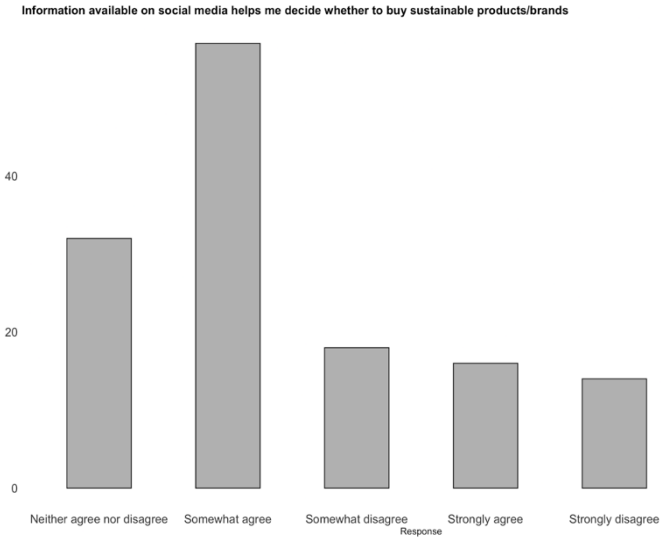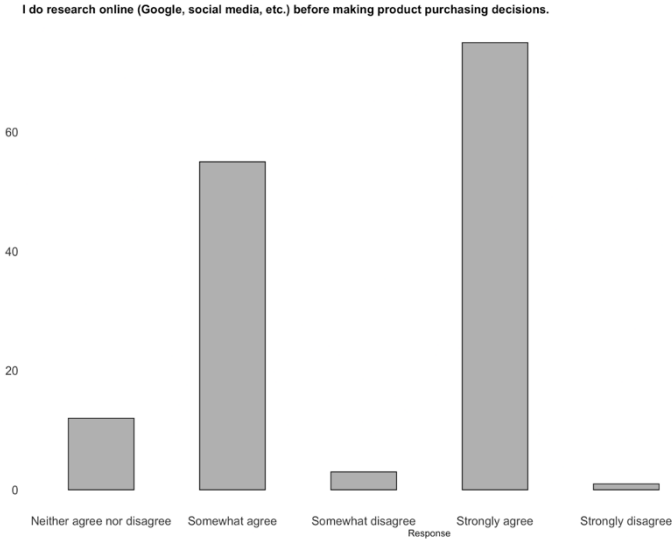
I do research online (Google, social media, etc.) before making product purchasing decisions.

Information available on social media helps me decide whether to buy sustainable products/brands

Distribution of independent variable among respondents: Trust

I am willing to buy the products recommended by my friends on social media
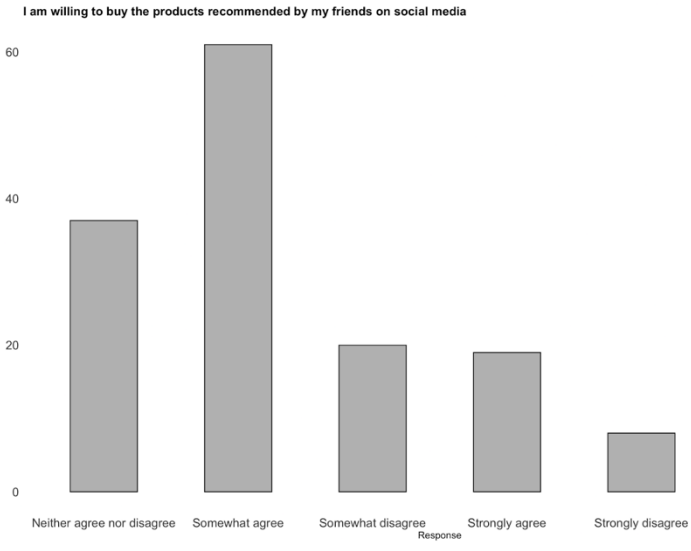
Distribution of independent variable among respondents: Social Media Influencers
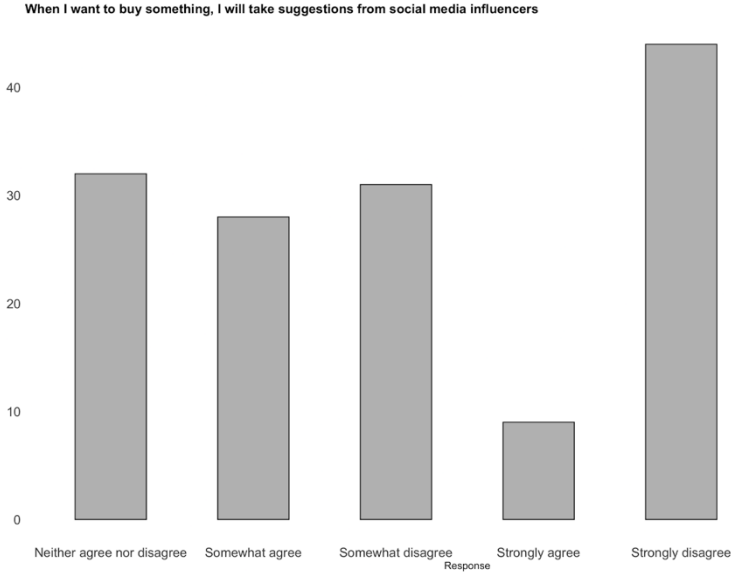
When I want to buy something, I will take suggestions from social media influencers

Distribution of independent variable among respondents: Status

How important is it for you to represent your commitment to sustainability on social media platforms?
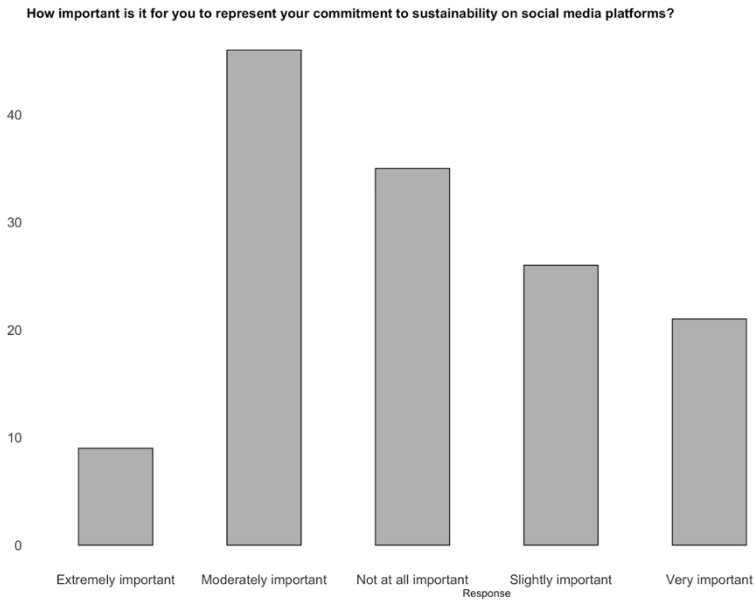
Appendix 2: Survey

Introduction

Your input is important!

Thank you for participating in this survey conducted by researchers at the University of Stavanger Business School.

The survey is about people's digital advertisement experiences and preferences for product characteristics.

We are only interested in your experiences and hearing opinions. ***There are no right or wrong answers.*** It will take less than 10 minutes to complete the survey.

Gorm Kipperberg
Professor of economics & project leader
Email: gorm.kipperberg@uis.no
Voice: 47 67 48 29

Trym Ferdinand Folgerø Dybwad, Aksha Fernando, Leila Asgarkhani
Master student researchers

Acknowledgement

Acknowledgement and participation agreement

Your participation in this survey is completely voluntary and anonymous. No information that can identify you as as person will be collected. Your answers will be combined with those of other participants to generate combined statistical analysis. You are free to end your participation and exit the survey at any time by closing your browser.

By entering the survey you confirm that you have read and understood the above information.

○ I AGREE TO PARTICIPATE IN THIS SURVEY (ENTER)　　　　○ I DO NOT AGREE TO PARTICIPATE IN THIS SURVEY (EXIT)

General question

Which social issues should have the highest priority in public policy and budget allocations? [*Choose the three most important ones for you.*]

☐ Equality   ☐ Crime   ☐ Health

☐ Defence   ☐ Elderly care   ☐ Public transport

☐ Culture   ☐ Education   ☐ Climate

☐ Agriculture   ☐ Environmental protection   ☐ Economy

☐ Immigration   ☐ Sports   ☐ Other (please specify):

                                                   [_____]

Consumption in the digital world

To what extent do you agree with the following statements: ***I do research online (Google, social media, etc.) before making product purchasing decisions.***

○ Strongly disagree   ○ Somewhat disagree   ○ Neither agree nor disagree

○ Somewhat agree   ○ Strongly agree

To what extent do you agree with the following statements: ***I am willing to buy the products recommended by my friends on social media.***

○ Strongly disagree   ○ Somewhat disagree   ○ Neither agree nor disagree

○ Somewhat agree   ○ Strongly agree

To what extent do you agree with the following statements: ***When I want to buy something, I will take suggestions from social media influencers.***

○ Strongly disagree   ○ Somewhat disagree   ○ Neither agree nor disagree

○ Somewhat agree   ○ Strongly agree

Social media advertisement scenario 1

Suppose you come across the following sponsored advertisement for a reusable drinking cup as you scroll through Instagram (or some other social media app).

How likely are you to click on the ad in order to learn more about this product?

Extremely unlikely   Extremely likely

0○   1○   2○   3○   4○   5○   6○   7○   8○   9○   10○

To what extent does the ad make you think about sustainability issues?

Not at all influential   Extremely influential

0○   1○   2○   3○   4○   5○   6○   7○   8○   9○   10○

Social media advertisement scenario 1

Suppose you come across the following sponsored advertisement for a reusable drinking cup as you scroll through Instagram (or some other social media app).

How likely are you to click on the ad in order to learn more about this product?

Extremely unlikely   Extremely likely

0 ◯   1 ◯   2 ◯   3 ◯   4 ◯   5 ◯   6 ◯   7 ◯   8 ◯   9 ◯   10 ◯

To what extent does the ad make you think about sustainability issues?

Not at all influential   Extremely influential

0 ◯   1 ◯   2 ◯   3 ◯   4 ◯   5 ◯   6 ◯   7 ◯   8 ◯   9 ◯   10 ◯

Social media advertisement scenario 2

Suppose you come across the following sponsored advertisement for mobile phones as you scroll through Facebook (or some other social media app).

How likely are you to click on the ad in order to learn more about this product?

Extremely unlikely   Extremely likely
0 ○   1 ○   2 ○   3 ○   4 ○   5 ○   6 ○   7 ○   8 ○   9 ○   10 ○

To what extent does the ad make you think about sustainability issues?

Not at all influential   Extremely influential
0 ○   1 ○   2 ○   3 ○   4 ○   5 ○   6 ○   7 ○   8 ○   9 ○   10 ○

Social media advertisement scenario 2

Suppose you come across the following sponsored advertisement for mobile phones as you scroll through Facebook (or some other social media app).

Infinite Tech
Sponsored

New Series ∞
The Best Phones

Battery Life – 5 hours
(High intensity use)

Face ID

3 years warranty

50% NEW,
REFURBISHED PARTS

Starting from
4500 NOK

www.infinitetech.com

4.1k   363 Comments   160 Shares

How likely are you to click on the ad in order to learn more about this product?

Extremely unlikely   Extremely likely
0   1   2   3   4   5   6   7   8   9   10

To what extent does the ad make you think about sustainability issues?

Not at all influential   Extremely influential
0   1   2   3   4   5   6   7   8   9   10

CE-score

More about your preferences for mobile phones

Below you will see several choice cards for new versus refurbished mobile phones.
The mobile phones differ in four explicit characteristics:

58

(1) Battery life
(2) Warranty
(3) Circular economy score
(4) Price

As you go through the choice cards and express your preferences, we would like you to focus only on these four characteristics. Assume the mobile phones are otherwise the same (i.e., they have the same processing capabilities, memory, appearance, service & insurance features, etc).

Next, we provide some more information about the the *circular economy* score.

The circular economy score (CES)

A circular economy score (CES) informs consumers the extent to which a product is made of re-used, recycled, and refurbished components. Some products consist of only of new materials, while others consist only of previously used materials. Hence, the CES can vary from 0% to 100%.

CES = 0% - Everything in the product comes from new materials.
CES = 25% - The product contains recycled/refurbished materials.
CES = 50% - Half the product is made of refurbished/re-used parts.
CES = 75% - Most of the product is made of refurbished/re-used parts.
CES = 100% - The whole product is refurbished/re-manufactured.

(1/10) Between these two products, which one would you purchase?

	Phone 1	Phone 2
Battery life (intensive use):	6 hours	10 hours
Warranty:	6 months	2 years
Circular economy score (CES)	100%	0% (brand new)
Price:	7000 NOK	9500 NOK

○ Phone 1

○ Phone 2

○ I would not purchase either phone

(2/10) Between these two products, which one would you purchase?

	Phone 1	Phone 2
Battery life (intensive use):	10 hours	6 hours
Warranty:	1 year	1 year
Circular economy score (CES)	75%	75%
Price:	9500 NOK	7000 NOK

○ Phone 1

○ Phone 2

○ I would not purchase either phone

60

(3/10) Between these two products, which one would you purchase?

	Phone 1	Phone 2
Battery life (intensive use):	10 hours	8 hours
Warranty:	6 months	2 years
Circular economy score (CES)	25%	100%
Price:	12 000 NOK	4500 NOK

○ Phone 1

○ Phone 2

○ I would not purchase either phone

(4/10) Between these two products, which one would you purchase?

	Phone 1	Phone 2
Battery life (intensive use):	10 hours	6 hours
Warranty:	6 months	1 year
Circular economy score (CES)	0% (brand new)	100%
Price:	4500 NOK	12 000 NOK

○ Phone 1

○ Phone 2

○ I would not purchase either phone

61

(5/10) Between these two products, which one would you purchase?

	Phone 1	Phone 2
Battery life (intensive use):	6 hours	10 hours
Warranty:	1 year	6 months
Circular economy score (CES)	25%	75%
Price:	12 000 NOK	4500 NOK

○ Phone 1

○ Phone 2

○ I would not purchase either phone

(6/10) Between these two products, which one would you purchase?

	Phone 1	Phone 2
Battery life (intensive use):	8 hours	10 hours
Warranty:	2 years	6 months
Circular economy score (CES)	75%	25%
Price:	4500 NOK	12 000 NOK

○ Phone 1

○ Phone 2

○ I would not purchase either phone

(7/10) Between these two products, which one would you purchase?

	Phone 1	Phone 2
Battery life (intensive use):	6 hours	8 hours
Warranty:	6 months	2 years
Circular economy score (CES)	75%	75%
Price:	4500 NOK	9500 NOK

○ Phone 1

○ Phone 2

○ I would not purchase either phone

(8/10) Between these two products, which one would you purchase?

	Phone 1	Phone 2
Battery life (intensive use):	10 hours	6 hours
Warranty:	1 year	1 year
New material score (NMS)	100%	25%
Price:	7000 NOK	4500 NOK

○ Phone 1

○ Phone 2

○ I would not purchase either phone

(9/10) Between these two products, which one would you purchase?

|	Phone 1	Phone 2
Battery life (intensive use):	8 hours	10 hours
Warranty:	2 years	6 months
New material score (NMS)	25%	100%
Price:	7000 NOK	7000 NOK

○ Phone 1

○ Phone 2

○ I would not purchase either phone

(10/10) Between these two products, which one would you purchase?

	Phone 1	Phone 2
Battery life (intensive use):	8 hours	8 hours
Warranty:	2 years	6 months
Circular economy score (CES)	100%	25%
Price:	9500 NOK	7000 NOK

○ Phone 1

○ Phone 2

○ I would not purchase either phone

Please rate the importance of the following attributes when considering the purchase of a mobile phone. For each attribute, indicate how much it would influence your decision.
(1-Very unimportant, 5-Very important)

	1	2	3	4	5	
Battery life						☐
Warranty						☐
Circularity						☐
Price						☐
Processing cababilities						☐
Memory						☐
Appearance						☐
Service and insurance						☐

NM-score

More about your preferences for mobile phones

Below you will see several choice cards for new versus refurbished mobile phones. The mobile phones differ in four explicit characteristics:

(1) Battery life
(2) Warranty
(3) New-material score
(4) Price

As you go through the choice cards and express your preferences, we would like you to focus only on these four characteristics. Assume the mobile phones are otherwise the same (i.e., they have the same processing capabilities, memory, appearance, service & insurance features, etc).

Next, we provide some more information about the *new material* score.

The New-Material Score (NMS)

The new-material score (NMS) informs consumers about the proportion of a product that is made from new, non-recycled materials. Some products are entirely composed of new materials, while others are made from a mixture of new and recycled or refurbished components. The NMS can range from 0% to 100%.

NMS = 0% - The whole product is refurbished/re-manufactured.
NMS = 25% - Most of the product is made of refurbished/re-used parts.
NMS = 50% - Half the product is made of refurbished/re-used parts.
NMS = 75% - The product contains recycled/refurbished materials.
NMS = 100% - Everything in the product comes from new materials.

(1/10) Between these two products, which one would you purchase?

|		Phone 1	Phone 2
Battery life (intensive use):		6 hours	10 hours
Warranty:		6 months	2 years
New material score (NMS)		0%	100% (brand new)
Price:		7000 NOK	9500 NOK

○ Phone 1
○ Phone 2
○ I would not purchase either phone

(2/10) Between these two products, which one would you purchase?

	Phone 1	Phone 2
Battery life (intensive use):	10 hours	6 hours
Warranty:	1 year	1 year
New material score (NMS)	25%	25%
Price:	9500 NOK	7000 NOK

○ Phone 1

○ Phone 2

○ I would not purchase either phone

(3/10) Between these two products, which one would you purchase?

	Phone 1	Phone 2
Battery life (intensive use):	10 hours	8 hours
Warranty:	6 months	2 years
New material score (NMS)	75%	0%
Price:	12 000 NOK	4500 NOK

○ Phone 1

○ Phone 2

○ I would not purchase either phone

(4/10) Between these two products, which one would you purchase?

	Phone 1	Phone 2
Battery life (intensive use):	10 hours	6 hours
Warranty:	6 months	1 year
New material score (NMS)	100% (brand new)	0%
Price:	4500 NOK	12 000 NOK

○ Phone 1

○ Phone 2

○ I would not purchase either phone

(5/10) Between these two products, which one would you purchase?

	Phone 1	Phone 2
Battery life (intensive use):	6 hours	10 hours
Warranty:	1 year	6 months
New material score (NMS)	75%	25%
Price:	12 000 NOK	4500 NOK

○ Phone 1

○ Phone 2

○ I would not purchase either phone

(6/10) Between these two products, which one would you purchase?

|		Phone 1	Phone 2
Battery life (intensive use):		8 hours	10 hours
Warranty:		2 years	6 months
New material score (NMS)		25%	75%
Price:		4500 NOK	12 000 NOK

○ Phone 1

○ Phone 2

○ I would not purchase either phone

(7/10) Between these two products, which one would you purchase?

		Phone 1	Phone 2
Battery life (intensive use):		6 hours	8 hours
Warranty:		6 months	2 years
New material score (NMS)		25%	25%
Price:		4500 NOK	9500 NOK

○ Phone 1

○ Phone 2

○ I would not purchase either phone

(8/10) Between these two products, which one would you purchase?

	Phone 1	Phone 2
Battery life (intensive use):	10 hours	6 hours
Warranty:	1 year	1 year
New material score (NMS)	0%	75%
Price:	7000 NOK	4500 NOK

○ Phone 1
○ Phone 2
○ I would not purchase either phone

(9/10) Between these two products, which one would you purchase?

|	Phone 1	Phone 2
Battery life (intensive use):	8 hours	10 hours
Warranty:	2 years	6 months
New material score (NMS)	75%	0%
Price:	7000 NOK	7000 NOK

○ Phone 1
○ Phone 2
○ I would not purchase either phone

(10/10) Between these two products, which one would you purchase?

	Phone 1	Phone 2
Battery life (intensive use):	8 hours	8 hours
Warranty:	2 years	6 months
New material score (NMS)	0%	75%
Price:	9500 NOK	7000 NOK

○ Phone 1

○ Phone 2

○ I would not purchase either phone

Please rate the importance of the following attributes when considering the purchase of a mobile phone. For each attribute, indicate how much it would influence your decision.
(1-Very unimportant, 5-Very important)

	1	2	3	4	5
Battery life					☐
Warranty					☐
Material origin (new material score)					☐
Price					☐
Processing cababilities					☐
Memory					☐
Appearance					☐
Service and insurance					☐

Debriefing questions

To what extent do you agree with the following statement:
Information available on social media helps me decide whether to buy sustainable products/brands.

O Strongly disagree   O Somewhat disagree   O Neither agree nor disagree
O Somewhat agree   O Strongly agree

How important is it for you to represent your commitment to sustainability on social media platforms?

O Not at all important   O Slightly important   O Moderately important
O Very important   O Extremely important

Block 18

Which digital channels usually influence your opinion towards *Sustainable* buying decisions?

O Social Media   O Websites/Blogs   O E-mail   O Others _____

Statement questions (behaviour)

To what extent do you agree with the following statements about your shopping behavior?
(1-Strongly disagree, 5-Strongly agree)

	1	2	3	4	5
When shopping, I deliberately check products for environmentally harmful Ingredients.					▢
I deliberately choose products with environmentally friendly packaging.					▢

	1	2	3	4	5
I'll prefer to buy sustainable products even if they are more expensive than others.					☐
I check environmental and fair trade label before buying the products.					☐

Statement questions (attitude)

To what extent do you agree with the following statements about environmental and sustainability issues?
(1-Strongly disagree, 5-Strongly agree)

	1	2	3	4	5
I believe that sustainable purchasing by me will help in reducing wasteful use of natural resources.					☐
I am very knowledgeable about environmental and social issues.					☐
I know where I can find products that create less wastage.					☐
I have knowledge about the sustainability symbols used on product packages.					☐
I feel good about myself when I am involved in sustainable purchasing.					☐
Humans are seriously abusing the environment.					☐

	1	2	3	4	5
The Earth has plenty of natural resources if we just learn how to develop them.					☐
The balance of nature is strong enough to cope with the impacts of modern industrial nations.					☐
The so-called "ecological crisis" facing humankind has been greatly exaggerated.					☐
Human ingenuity will ensure that we do not make the Earth unlivable.					☐

About the respondent

What is your gender?

○ Male ○ Female ○ Prefer not to say

What is your age?

○ <20 ○ 20-29 ○ 30-39 ○ 40-49 ○ 50-59 ○ 60<

Considering your current financial situation, how easy or challenging would it be for you to buy a new mobile phone today?

○ Extremely difficult ○ Somewhat difficult ○ Neither easy nor difficult

○ Somewhat easy ○ Extremely easy

What is your employment situation?

○ Employed full time

○ Employed part time

○ Student (with or without employment)

○ Other

Which faculty are you in?

○ UiS Business School
○ Faculty of Arts and Education
○ Faculty of Performing Arts
○ Faculty of Science and Technology
○ The Faculty of Health Sciences
○ The Faculty of Social Sciences

To what extent is the focus on environmental issues significant within your faculty?

○ None at all ○ A little ○ A moderate amount ○ A lot ○ A great deal

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