



FACULTY OF ENGINEERING AND SUSTAINABLE DEVELOPMENT

Department of Building Engineering, Energy Systems and Sustainability Science

---

# Advertising and Climate Change

The role of advertising as a driver of climate change

Azadeh Hajipour, Sebastián Bustamante

2024

Student thesis, Advanced level (Master degree, two years), 30 HE  
Sustainability Science  
Master in Sustainability Science – Environment and Decision Making

Supervisor: Johan Colding  
Examiner: Stephan Barthel

---



## **Preface**

As we present this thesis, we are filled with deep gratitude towards Professor Johan Colding, whose guidance has been nothing short of transformational throughout the journey of our master's studies. Your expertise and patience have not only shaped this academic endeavor but have profoundly influenced our approach to research and critical thinking. Thank you for your mentorship, support, and wisdom. It has been an immense privilege to learn from and work with you. We would like to extend our gratitude to the opponents for reviewing our thesis.

## **Abstract**

Advertising is increasingly recognized as having both direct and indirect negative impacts on the environment and climate change, although these effects are often overlooked in public discourse. While advertising alone is not solely responsible for these negative consequences, it does play a significant role in promoting and perpetuating consumerism and resource intensive industries.

There are different effects and implications advertising strategies can have, positive and negative, when shaping consumer behavior and thus, environmental impacts. Some efforts have been initiated in the marketing industry to foster more sustainable and responsible advertising practices, which include the use of eco-friendly materials, the adoption of energy efficient digital advertising methods, and the establishment of ethical advertising standards. Nevertheless, addressing the environmental and climate impacts of advertising remains an ongoing challenge.

This research concentrates on exploring how advertising influences climate change. This thesis involves an extensive systematic literature analysis to synthesize existing knowledge regarding the adverse effects of advertising on climate change, and what types and categories of advertising are most influential. The research focuses on aspects such as how advertising fosters a culture of consumerism, encouraging increased consumption of products and services, contributing to higher resource extraction, production, and transportation, all of which are key drivers of environmental degradation and climate change.

The research also aims to contribute to the development of more responsible advertising practices and policies that align with environmental sustainability goals. Our ultimate goal is to foster a shift in the advertising industry towards approaches that not only reduce its negative impact on the environment but also actively promote sustainable consumer behaviors and lifestyles.

**Keywords:** *advertising, climate change, consumer behavior*

## Table of contents

<b>1. INTRODUCTION .....</b>	<b>1</b>
1.1. ADVERTISING AND SUSTAINABILITY THROUGH HISTORY .....	1
1.2. AIM AND RESEARCH QUESTIONS.....	2
<b>2. BACKGROUND .....</b>	<b>3</b>
2.1. GREEN WASHING.....	4
2.2. GLOBAL PERSPECTIVE.....	5
2.3. CHALLENGES.....	6
<b>3. THEORETICAL BACKGROUND .....</b>	<b>6</b>
3.1. THEORY AND FRAMEWORKS .....	6
3.2. SUSTAINABLE MARKETING .....	7
3.3. SOCIAL COGNITIVE THEORY .....	7
3.4. SOCIAL MARKETING: ADVERTISING AND ITS LINK TO ENVIRONMENTAL ISSUES.....	7
3.5. SUSTAINABLE DEVELOPMENT GOALS (SDGs) .....	8
<b>4. METHODOLOGY .....</b>	<b>8</b>
4.1. QUALITATIVE RESEARCH .....	8
4.2. CRITERIA DEFINITION: QUALITATIVE RESEARCH.....	10
4.2.1. <i>Limitations</i> .....	10
4.2.2. <i>Data Analysis process</i> .....	11
4.2.3. <i>PRISMA</i> .....	11
<b>5. RESULTS .....</b>	<b>13</b>
5.1. PROMOTIVE CONSUMERISM ADVERTISING TECHNIQUES .....	14
5.2. ADVERTISING AND SOCIAL NORMS .....	15
5.3. MEDIA'S ROLE ON THE PERCEPTION OF CONSUMPTION AND SUSTAINABILITY .....	16
<b>6. DISCUSSION.....</b>	<b>18</b>
6.1. SOCIAL MARKETING .....	20
6.2. CORPORATE PROMOTIONAL CAMPAIGNS.....	20
6.3. SOCIAL MEDIA.....	21
6.3.1. <i>Celebrity endorsements and its impact in climate-driven decision-making</i> 21	
6.3.2. <i>Examples of celebrity endorsed campaigns</i> .....	22
6.3.3. <i>The Greenwashing phenomena</i> .....	23
6.3.4. <i>The concept of green de-marketing</i> .....	24
<b>7. CONCLUSIONS.....</b>	<b>25</b>
<b>8. REFERENCES .....</b>	<b>26</b>



# 1. Introduction

## 1.1. Advertising and sustainability through history

The notion of ‘sustainability’ has been at the heart of the international research- and policy forefront ever since the Brundtland Report first was published in 1987 (Keeble 1988). In general, and as judging from the review conducted in this thesis, research and practice have given insufficient attention to aspects of what role advertising has on the environment and on climate change. Suffice it to say, advertising, materialism, and consumption are central aspects of contemporary Western culture (Dittmar, 2007). According to Twenge & Kasser (2013) "materialism" is defined as the emphasis people place on ideals and aspirations to amass riches and things, frequently driven by reasons related to status or appearance. The term "consumerism" describes the belief that consuming goods and services, including experiential purchases like a plane ticket to a vacation spot, improves happiness and well-being.

We are bombarded with idealized images of the perfect body, desirable consumer goods, and affluent lifestyles. Moreover, individuals who prioritize materialistic values and goals tend to consume more products, engage in ecologically destructive behaviors (Kasser, 2016).

The theory of consumers' behavior shows that advertising often is targeting specific groups of consumers by way of different advertising techniques, often based on cognitive psychological research, giving rise to advertising techniques such as snob appeal and bandwagon, price promotions, etc. Purchases of products are motivated by materialism and consumerism as well (Lee et al., 2022). The advertising industry's creative sector takes advantage of this to promote consumption (Chia, 2010) and consumerism attests to the efficacy of such strategies. However, it appears that we are only just beginning to fully recognize the profound influence these consumer culture ideals have on environmental sustainability. Hence, the overall objective of this thesis is to provide a more comprehensive overview of the relationship between advertising and climate-related implications, and to elaborate on how social marketing and similar environmentally informed advertising approaches could promote pro-environmental and climate friendly consumerism.

Surprisingly little has been written about the relationship between advertising and climate- and environmental change. Regarding the direct and indirect carbon emissions caused by the advertising sector, trustworthy data are scarce. Most reports regarding the environmental impact of advertising are now written by specialists in the advertising business themselves (Timperley, 2021). Due to that scientific information is limited, the results conveyed in this thesis fill an important research gap in the current interdisciplinary literature related to sustainability science.

To provide an overall picture of the field, and as the literature indicates, the relationship between environmental sustainability and advertising is dualistic, with advertising playing a key role in both accelerating environmental deterioration and fostering positive environmental change. Advertising has historically played a key role in fostering a culture of consumerism (Hackley, 2002), where the unrelenting need for consumption has had a major negative impact on the environment, including increased pollution and resource depletion.

This occurrence highlights the contradictory relationship between advertising's promotion of consumerism and economic expansion, and its simultaneous threat to the sustainability of the planet's ecosystems. However, there is a strong counter argument presented by the growing ability of advertising to promote and popularize sustainable goods and ways of living (Cohen et al., 2005). In contrast to conventional selling techniques, advertising plays a vital role in influencing public attitudes and behaviors toward a future that is more ecologically sensitive and sustainable.

The potential of advertising leadership to solve climate-related concerns through creative tactics highlights the critical role that this function plays in the industry. Business executives might potentially reduce their influence on the environment by reshaping advertising methods to be more environmentally friendly by giving sustainability and ethical issues priority. This research looks at knowledge gaps on the kinds of ads that have the greatest impact on encouraging consumption that worsens the environment, often contributing to climate change. It also attempts to identify areas where understanding is inadequate or underdeveloped through a thorough literature analysis that focuses on current theories and empirical studies. This information will help build pertinent research questions.

We want to offer direction for the development of ethical advertising procedures and regulations that assist with the goals of environmental sustainability and to advance the cause of a more sustainable future by encouraging sustainable consumer lifestyles and behaviors that will contribute to reducing the negative environmental effects of consumption.

## 1.2. Aim and research questions

The aim of this thesis is two-folded: First, to provide a comprehensive overview of the relationship between advertising and climate-related implications, and second, to investigate and analyze how social marketing and similar environmentally informed advertising approaches could promote pro-environmental and climate friendly consumerism.

The comprehensive overview will cover the following three research questions:

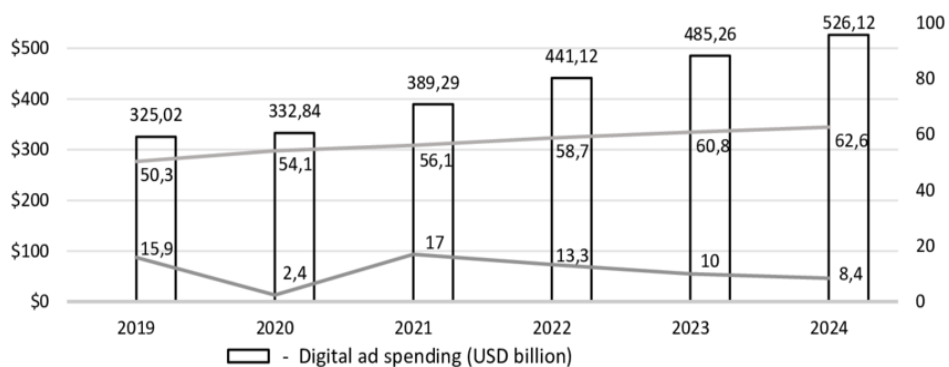
- RQ1.1: What specific advertising strategies and techniques are commonly used to promote consumerism, and how do they influence consumer behavior related to environmentally impactful choices?

- RQ1.2: To what extent does advertising contribute to the creation of societal norms and values that prioritize material consumption over sustainable practices, thus exacerbating the environmental effects of climate change?
- RQ1.3: How do different forms of media (e.g., television, social media, print) shape perceptions of consumption and sustainability, and what role do these perceptions play in driving individual consumption patterns that contribute to climate change?

## 2. Background

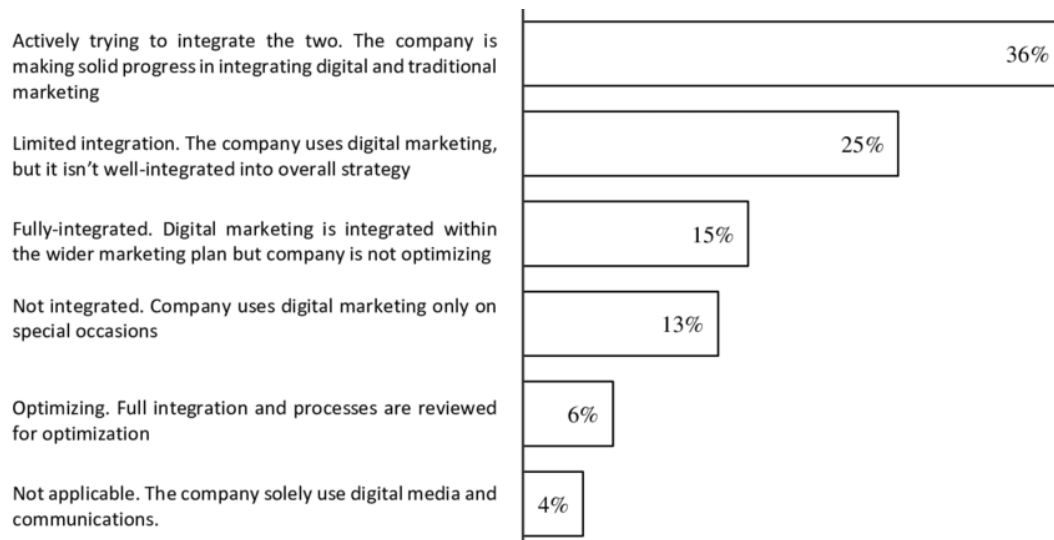
Within the changing advertising landscape, digital marketing has become a prominent force, gradually accumulating a sizable percentage of the industry's overall spending. This change is indicative of the global movement toward digital platforms, which is being supported by the growth in internet usage and the development of digital technology. As a result, by 2019 (Kyiv National Economic University named after V. Hetman & Zahladko, 2020), half of all advertising spending went toward digital marketing campaigns, highlighting the sector's explosive growth and the growing importance that businesses around the world are placing on digital channels.

Figure 1 illustrates that in 2020, the financial commitment to digital marketing further escalated, exceeding 332 billion USD. Although the sector's growth has moderated, it continues to expand at a robust rate, with expert predictions suggesting an annual growth of around 10%. This growth trajectory is not confined to global markets alone; for instance, in Ukraine, digital advertising spending at the end of 2019 amounted to an impressive 14,516 million UAH (Ukrainian Advertising Coalition, 2019). This figure not only surpassed the allocations for TV advertising (11,526 million UAH), outdoor advertising (4,240 million UAH), and press advertising (1,850 million UAH) but also marked a pivotal shift in advertising paradigms within the region.



Figur 1 Digital Ad Spending Worldwide Forecasts (2019-2024). Source: Kyiv National Economic University named after V. Hetman & Zahladko (2020).

Despite the rapid embrace of digital advertising, traditional advertising channels remain relevant. Businesses are increasingly seeking to leverage an integrated approach, combining the strengths of both digital and traditional mediums to maximize their advertising efficacy. A study by Smart Insights corroborates this (Smart Insights, 2019), revealing that a significant majority of businesses have successfully amalgamated traditional and digital marketing strategies into a cohesive system, as shown in Figure 2.



Figur 2 The results of a survey regarding the integration processes of traditional and digital channels. Source: Smart Insights (2019).

There are many different channels and strategies for engaging audiences in the complex environment of digital marketing. These include, but are not limited to, search engine marketing (SEM), content marketing, mobile marketing, viral marketing, email marketing, real-time bidding (RTB), social media marketing (SMM), social media optimization (SMO), search engine optimization (SEO), and contextual advertising (including platforms like Google AdWords and Facebook Ads). Ascend2's research indicates that email marketing, search engine optimization, and content marketing are the most successful channels (Ascend 2, 2019), which is in line with their critical roles in an all-encompassing digital marketing strategy.

## 2.1. Green Washing

Greenwashing has been widely and regularly used by the most polluting businesses, like oil firms (Megura & Gunderson, 2022). "Greenwashing" is the term used to describe environmental communication about a product that is misleading, incorrect, unclear, or that leaves out important product details (Kangun et al., 1991). Tactics have not only been used in advertising efforts but have also been a crucial component of the public relations (PR) campaigns of numerous businesses that damage the climate. The goal of these PR initiatives is to enhance businesses' reputation while avoiding laws and public pressure.

## 2.2. Global Perspective

Due to the relevance and interaction between human behavior, advertising and sustainability, it is relevant to pay attention to how the consumer's behavior towards sustainability is shaped in different parts of the planet. It is also important to identify differences and common factors such as culture, education etc. in different areas for a deeper understanding. The variances in how environmental sustainability messaging is constructed and received across the Global North and South emphasizes a worldwide characteristic in consumer habits towards sustainability.

The dynamics of green purchasing behavior in the global south and specifically among Egyptian consumers, with a particular emphasis on the interplay between gender and environmental engagement was studied by Mostafa (2007). The study delves into how environmental knowledge, concern, and attitudes differ between males and females, and how these factors subsequently influence their propensity to purchase eco-friendly products. It also indicates that these variances may be deeply rooted in distinct levels of environmental knowledge, concern, and attitudes held by men and women (Mostafa, 2007). By highlighting these differences, the study contributes valuable insights into the effectiveness of targeted marketing strategies and policy initiatives aimed at promoting sustainable consumption practices within the Egyptian context. Such insights are crucial for developing more nuanced approaches to fostering environmental stewardship across diverse demographic segments, underscoring the study's relevance beyond its geographical focus (Mostafa, 2007).

On the other hand, the global north was examined in D'Souza et al. (2007) along with the effect of demographic characteristics on user interaction with environmental labels. According to D'Souza et al. (2007), the study evaluates sociodemographic differences in terms of age, gender, income, and education along with the degree of awareness and comprehension of eco-labeling and its effect on purchase decisions. D'Souza et al. (2007) found that their research indicates differences in consumer behavior regarding environmental label interpretation, but also emphasizes the important role that a thorough knowledge of these labels plays in influencing consumers to make more sustainable choices. The analysis conducted by D'Souza et al. (2007) also highlights the importance of developing more effective communication and education strategies related to eco-labels. Additionally, it suggests that these strategies could be tailored to meet the unique informational needs and preferences of diverse demographic groups, thereby improving the overall impact of environmental labeling on sustainable consumer practices. On the other hand, consumers often underestimate the environmental impact of labeled products and choices, particularly when these are integrated with other products and choices—a phenomenon referred to as the 'negative footprint illusion' (Sörqvist, Marsh & Colding 2020). These studies provide insightful contrasts and parallels in sustainable consumer behaviors across the Global North and South, emphasizing the universal role of consumer awareness and attitudes

towards environmental issues (D'Souza et al., 2007; Mostafa, 2007). While Mostafa (2007) focuses on gender differences within Egypt and highlights the cultural dynamics influencing green purchasing, D'Souza et al. (2007) explore the broader impact of demographic factors, including gender, on the understanding and influence of environmental labels in more developed countries. This underscores the complexity of promoting sustainability across different cultural and economic landscapes, having both studies suggesting the need for tailored, demographic-specific approaches. The findings advocate for the adaptation of sustainable marketing strategies to regional contexts by e.g. enhancing label clarity and consumer education in the Global North (D'Souza et al., 2007), and addressing cultural and gender-specific barriers in the Global South (Mostafa, 2007). Enhancing consumer engagement with sustainability is a global goal, achieving it requires strategies that respect and respond to local demographic, cultural, and economic factors.

### 2.3. Challenges

It is difficult to establish a direct correlation between advertising expenditure and the detrimental environmental effects of consumption-driven economic growth, due to inconsistent empirical evidence on the macroeconomic impact of advertising. Several case studies and historical data at the macro level revealed that advertising had little impact on overall consumption (Wilcox & Gangadharbatla, 2006). However, several others (Brulle & Young, 2007) have verified the impact of advertising on overall spending, investment, hours worked, economic activity, and economic growth.

## 3. Theoretical background

### 3.1. Theory and frameworks

Within the field of social marketing, advertising becomes a key instrument for shaping consumer behavior and social standards, especially regarding environmental matters. The relationship between environmental advocacy and advertising reveals a complex area where marketing tactics are used to advance environmental awareness and sustainability. Advertising affects environmental concerns, and it influences consumers to adopt more environmentally friendly habits.

The foundation of social marketing is effective communication, which acts as a bridge between the public and environmental problems. The purpose of social marketing programs that strategically employ advertising is to change people's attitudes and behaviors toward environmental preservation. Effective advertising campaigns have the power to dramatically change the public's perception of environmental stewardship. They also highlight the significance of customized

messages that speak to the target audiences (Kotler & Lee, 2008). In addition to promoting awareness, marketing communication plays a crucial role in environmental advocacy by inspiring group action toward sustainable objectives.

### 3.2. Sustainable marketing

Recent studies highlight the concept of sustainable marketing, a paradigm where brand success and environmental responsibility are combined and interacted, infusing marketing strategies with environmental considerations (Leonidou et al., 2011). This approach does not only align with the global movement towards sustainability but also contributes to the increasing consumer concern and awareness over climate change, reflecting a broader societal shift towards environmental preservation (Leonidou et al., 2011). The exploration of sustainable marketing practices reveals the dynamic and often complex relationship between advertising strategies and their environmental impacts, offering new insights into how marketing can both facilitate and hinder sustainable consumer behaviors (Leonidou et al., 2011).

### 3.3. Social cognitive Theory

Central to this scope is also the application of the Social Cognitive Theory by Albert Bandura, which provides a robust theoretical framework for examining the influence of advertising's framing and messaging on consumer attitudes and behaviors towards climate change (Bandura, 2001). Bandura's theory emphasizes the role of observational learning, with media as a key platform and offers valuable insights into how specific advertising strategies can shape consumer perceptions, attitudes, and behaviors towards environmental sustainability (Erdogan, 1999).

### 3.4. Social marketing: advertising and its link to environmental issues

Advertising is frequently accused of encouraging consumerism that is harmful to the sustainability of the environment. The relationship between consumption patterns and advertising is complicated but an increasing amount of research indicates that advertising can help promote environmental awareness as well. Environmental advantages of particular goods or lifestyles, ecologically focused advertising may promote sustainable consumption (Peattie & Peattie, 2009). According to this viewpoint, advertising that supports environmentalist positions may help society's norms and values change in favor of a more ecologically conscious approach.

The ability of environmentally conscious advertising to emotionally connect with consumers and communicate the seriousness of environmental issues while offering practical solutions is what makes it effective in promoting sustainable consumption behaviors. The emotive appeal of advertising campaigns can greatly increase their impact by emphasizing the notion that individual consumer decisions have a substantial impact on the environment (Corner & Randall, 2011). Utilizing the

strength of social influence and the demand for social conformity, the incorporation of social norms into advertising messages can further affect customer behavior (Schultz, 2014).

### 3.5. Sustainable development goals (SDGs)

Two Sustainable Development Goals are strongly related to the study on how advertising contributes to climate change by encouraging consumerism: SDG 12 - Responsible Consumption and Production, and SDG 13 - Climate Action.

Through increasing resource efficiency, lowering waste generation, and supporting sustainable practices throughout a product's lifecycle, SDG 12 seeks to promote patterns of sustainable consumption and production. Furthermore, by analyzing the connection between advertising, consumerism, and climate change, the study advances SDG 13.

The research offers insights into efficient communication tactics that support climate action and help to mitigate the harmful environmental effects of consumption by understanding how advertising influences consumer behaviors related to climate-friendly initiatives.

## 4. Methodology

The methodology used in this study is qualitative transdisciplinary literature review. The approach will provide an overview of the relationship between advertising, consumerism, and climate change.

### 4.1. Qualitative research

Qualitative information on current initiatives, eco-friendly practice trends, and ethical advertising standards were gathered through a systematic literature review.

A literature review typically consists of two main parts: summarizing prior research findings and evaluating their accuracy and completeness. It synthesizes existing knowledge and assesses its completeness, identifying current gaps and offering suggestions for filling them (Knopf, 2006).

In this paper we reviewed the current literature through an examination of scientific books and articles to find theories and empirical research that already exist regarding how advertising affects consumer attitudes and behavior, especially when it comes to climate change. The review was limited to and focused on websites providing valid statistical data, as well as peer-reviewed journals and conference papers published after 1995. The articles were categorized, and their content rigorously analyzed, with particular attention paid to the findings obtained.

Academic journals like the Journal of Advertising, Journal of Advertising Research, and Journal of Business Ethics, which frequently publish research articles exploring

the complex relationships between advertising practices, consumer behavior, and their environmental implications, have given considerable attention to the relationship between advertising, consumerism, and climate change.

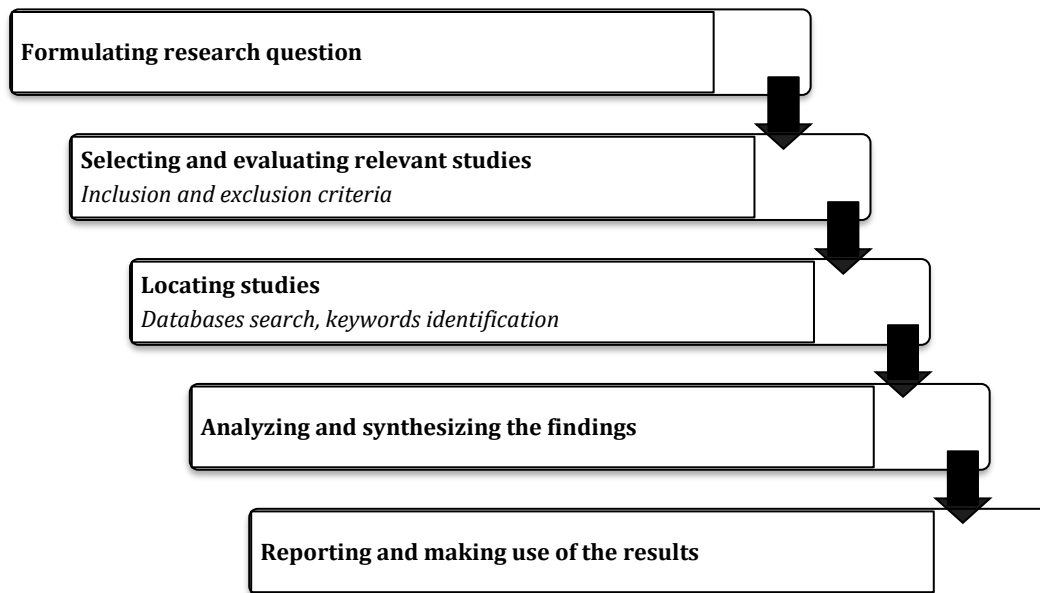
A wide range of books are included in the literature on this subject, which goes beyond scholarly publications. Notable publications that provide deep insights into the deep relationships between advertising, consumer culture, and the ensuing effects on the environment are "No Logo" by Naomi Klein (Klein, 2010) and "The Consumer Society Reader," edited by Juliet B. Schor and Douglas B. Holt (2001). Additionally, environmental organizations like Greenpeace, the World Wildlife Fund (WWF), and other environmental agencies actively participate in this conversation.

These publications provide light on individual case studies and industrial practices that contribute to the difficulties posed by climate change. They frequently discuss the greater environmental impact of numerous industries, including advertising. Sustainable advertising methods are covered in studies and white papers published by industry associations and research firms. These materials are important sources of information because they provide light on the industry's current efforts to address and lessen the environmental impact of advertising.

Figure 3 below describes the systematic literature review process including the following steps:

1. **Formulating Research Question:** The cornerstone of every systematic literature review is the formulation of a clear and focused research question. The question guides the entire review process and help to define the scope of their inquiry and identify the specific objectives the study aims to address.
2. **Selecting and Evaluating Relevant Studies:** To ensure the reliability and relevance of the literature review, some inclusion and exclusion criteria are established. These criteria define the characteristics that studies must possess to be considered for inclusion in the review. The quality and suitability of each study based on these criteria is evaluated through systematic screening and assessment.
3. **Locating Studies:** A comprehensive search strategy is essential for identifying relevant literature. Various search techniques are then evaluated with the aim to capture all relevant studies that address the research question by a wide range across multiple sources.
4. **Analyzing and Synthesizing Findings:** Once the relevant studies have been identified, it is time to extract and analyze data from each study. This data extraction process involves systematically recording key information, such as study characteristics, methods, and findings. The findings are synthesized then using appropriate analytical techniques to identify patterns, trends, and relationships across the literature.
5. **Reporting and Making Use of the Results:** The final step in the systematic literature review process is to report the findings in a clear and transparent

manner. The findings should be presented in a written report to contribute and create a basis for decision-making, policy development, and future research directions in the field.



Figur 3 Systematic literature review (Denyer, D., & Tranfield, D, 2009).

#### 4.2. Criteria definition: qualitative research

For conducting the qualitative literature review, we utilized the 2020 Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) framework, which included identification, screening, eligibility, and inclusion as the main pillars in the process. The criteria to help us narrow down our search has an emphasis on important subjects like ethical standards, digital energy-efficient techniques, and sustainable advertising.

##### 4.2.1. Limitations

Some limitations that have been identified in our pre-research of the topic are:

- Generalizability, which means that the findings can be context-specific and might not be universally applicable due to cultural, regional, or industry variations.
- Temporal Constraints where the advertising trends and their impact on climate change are dynamic; the dynamic nature of the climate can affect the research and the outcome since the research might not capture rapidly evolving practices.
- The data is not very empirically grounded but also, it usually address different geographical contexts that are not necessarily relatable to each other, which brings additional complexities when blending trends and conclusions.

#### 4.2.2. *Data Analysis process*

Qualitative methods are used for data analysis and to comprehensively examine the study aim and the research question results. A thorough review of the literature for qualitative analysis was carried out to spot gaps, identify trends, and offer a qualitative viewpoint on most important aspects related to advertisement campaigns and their effect on consumer behavior and related effects on exacerbating climate change. The literature review management was handled using Zotero. Integration and Validation

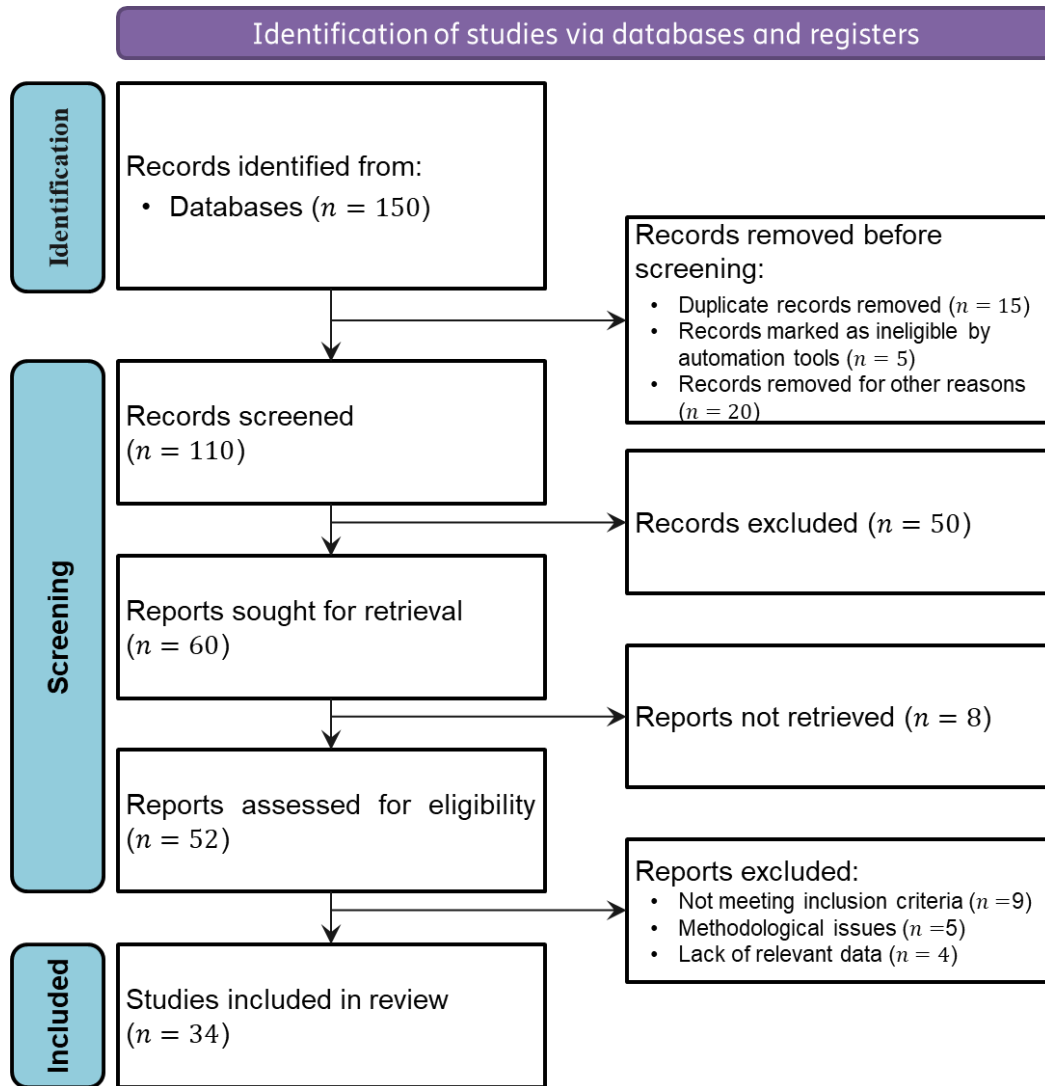
The final stage involved the integration of qualitative findings through triangulation, fostering a nuanced understanding that reflects the confluence or disparity between different outcomes

#### 4.2.3. *PRISMA*

##### Narrative

Our analysis began with 150 records from various databases. After removing 15 duplicates, 5 records identified by automation tools, and 20 others that were either irrelevant, non-English, or otherwise unsuitable, we proceeded with 110 unique records. During screening, we excluded 50 records due to irrelevance, insufficient data, or their nature as opinion pieces.

We sought full-text access for 60 reports but couldn't retrieve 8 due to access restrictions and other applicable reasons. After assessing the 52 available reports, we excluded 18 (9 for not meeting inclusion criteria, 5 for methodological issues, and 4 for lacking relevant data). Lastly, 34 studies met our criteria, forming the core of our analysis. This selection process ensured we worked with high-quality, relevant studies for our review. The results of the literature review process are demonstrated in Figure 4.



Figur 4 PRISMA Chart

Tabell 1 List of included studies

<b>STUDY ID</b>	<b>AUTHOR(S)</b>	<b>YEAR</b>	<b>JOURNAL/CONFERENCE NAME</b>
3	Aybaly et al.	2007	Procedia Computer Science
4	Bagozzi & Moore	1994	Journal of Marketing
7	Berglind & Nakata	2005	Business Horizons
13	Chen et al.	2016	PACIS
16	Cialdini,	2009	-
19	De Hoog et al.	2005	Personality and Social Psychology Bulletin
26	D'Souza et al.	2007	International Journal of Consumer Studies
27	Durante & Laran	2016	Journal of Marketing Research
33	Good & Hyman	2021	Journal of Consumer Behaviour
35	Grimes	2008	European Journal of Marketing
38	Hartmann et al.	2013	International Journal of Advertising

42	Hwang et al.	2016	Journal of Fashion Marketing and Management: An International Journal
43	Hynes & Wilson	2016	Technological Forecasting and Social Change
52	Kotler	2011	Journal of Marketing
54	Krause & Rucker	2020	Personality and Social Psychology Bulletin
58	Liu & Shrum	2002	Journal of Advertising
61	Meyer & Johnson	1995	Marketing Science
64	Morin	2009	-
66	North	1990	Cambridge university press
67	Nyborg et al.	2016	Social norms as solutions. Science
75	Rademaker & Royne	2018	Journal of Business Strategy
77	Richins	2017	Journal of Consumer Psychology
80	Schmitt et al.	2003	Journal of Communication
85	Seelig	2019	The Communication review
86	Sekhon & Armstrong Soule	2020	Psychology & Marketing
88	Shahid & Paul	2021	Journal of Retailing and Consumer Services
90	Sörqvist et al.		Food Quality and Preference
91	Sörqvist, Patrik & Colding, Johan & Marsh, John	2020	Environmental Research Letters
93	Taylor	2009	Social Semiotics
98	Van den Bogaert et al.	2019	Journal of Interactive Marketing
99	Wang et al.	2016	Journal of Neurophysiology
100	Weber	2010	WIREs Climate Change
102	Yim et al.	2021	International Journal of Advertising
103	Zafar et al.	2021	Journal of Retailing and Consumer Services

## 5. Results

Advertising has a complicated effect on how people behave, and it can affect decisions that have an impact on the environment. Our analysis of the literature reveals a troubling trend: a lot of the popular advertising tactics and approaches used to encourage consumerism can influence people to make decisions that harm the environment.

Aspirational imagery generation is equally key to advertising. Advertisements frequently present inflated notions of happiness and success that are closely related to consumption (Pollay, 1986). People may become dissatisfied with their lives as they are and think that obtaining more possessions will help them close the gap between what their reality is and the idealized lifestyle (Dimofte et al., 2015). This emphasis on aspiration and image might start a consuming cycle where material belongings take precedence over the health of the environment.

In order to grab consumers' attention and sway their decisions to buy, advertisers are continuously coming up with new ideas and strategies (Yim et al., 2021). According to the reviewed study, these strategies can significantly alter people's perspectives on consumption and the environment.

Below, we summarize the results of the three research questions that have guided our literature review, i.e.: (1) common strategies and techniques used to promote consumerism, (2) societal norms and values that prioritize material consumption over sustainable practices, and (3) how different forms of media shape perceptions of consumption and sustainability.

### 5.1. Promotive consumerism advertising techniques

Consumers usually digest advertising while completing other things, including watching television or browsing through social media, therefore it often requires low effort mental processing as opposed to high effort mental processing (Grimes, 2008). Studies on advertising and consumer behavior also demonstrate that advertising often is a selective process, targeting specific groups of consumers by way of different advertising techniques, such as snob appeal and bandwagon appeal, price promotions, etc. For example, luxury consumers are motivated by a need to show who they are as opposed to what they appear to be. Consumers in this category of techniques use their consumption behavior to reflect 'self-expression,' and self-gifting also enhances one's self-worth (Shahid & Paul 2021).

Another category of advertising techniques is the 'bandwagon effect', which is used to persuade individuals to buy a product or service by creating the impression that it is popular or widely accepted (Chen et al. 2016). Advertisers encourage us to follow the herd by depicting a good or service as incredibly popular. This appeals to our inclination to follow the herd and our dependence on social proof, which holds that if a lot of people use something, it must be beneficial (Cialdini, 2009).

Bandwagon advertisements often employ strategies to portray a product as the preferred option of the "in-group," making us feel excluded if we don't join, such as displaying strong sales statistics, celebrity endorsements, or showing sizable gatherings of people enjoying the product. To capitalize on the fear of losing out, they might also instill a sense of urgency through flash sales or limited-edition offerings. Although trend-conscious audiences may find great success with this strategy, it's crucial to keep in mind that long-term success depends on consumer contentment and high-quality products (Van den Bogaert et al., 2019). If the product doesn't live up to the hype, overusing the bandwagon effect can also result in cynicism from customers.

Emotional appeal is yet another technique used in marketing to get customers buying their products. In this category the commercials strive to evoke emotions in readers, viewers and other groups that are facing the ads using this technique. Here the main idea is to create a feeling of different kinds in the presumed customer, such as happiness, nostalgia, fear, or love to establish a connection with the audience (Bagozzi & Moore 1994). Emotional appeal triggers to our deepest fears, wishes, and aspirations, in contrast to traditional advertising which focuses on functionality (Wang et al., 2016). This tactic is predicated on the knowledge that our purchasing decisions are frequently motivated by our emotions. Marketers hope to leave a

lasting impression and foster a good relationship with the brand (Krause & Rucker, 2020) by invoking a range of emotions in viewers, readers, or listeners who are exposed to the advertisement

Ads can target a range of emotions depending on the product and goal. Happy commercials featuring families enjoying cereal or adventures in a new car create positive associations (Zhao et al., 2023). Nostalgia can be triggered by familiar childhood settings or cultural references, subtly linking those warm feelings to the product (Morin, 2009). Fear can also be effective, with ads highlighting problems like plaque buildup or bad breath to position the product as the solution (De Hoog et al., 2005). Therefore, a thorough understanding of the target audience and their beliefs is essential for emotional appeal to be truly effective.

Another category is 'limited - time and countdowns offers', having the purpose to create a sense of scarcity or urgency that can prompt consumers to act quickly (Durante & Laran 2016). This is a common advertising tactic that takes advantage of the psychological concepts of scarcity and urgency and according to research by Durante and Laran (2016), these strategies have a big impact on customer behavior and frequently result in impulsive purchases.

The idea that there is a finite amount of a good or service is known as scarcity. Phrases like "limited-time offer," "while supplies last," or presenting a limited quantity remaining are used in advertising to stress this limited availability. Customers experience FOMO (fear of missing out) because of this perceived scarcity, which drives them to move fast to get the goods before it sells out (Good & Hyman, 2021). Online or in ads, countdown timers instill a sense of urgency that prompts quick action (Meyer & Johnson, 1995). Customers may make snap judgments without giving thorough thought to their demands or the product's environmental impact since they believe these offerings to be transitory opportunities.

When it comes to green advertising, consumers frequently employ mental shortcuts that direct attention toward certain cues, like pictures of nature, rather than considering the reality of the green claims (Hartmann et al., 2013). Utilizing psychological processes including moral satisfaction, natural experiences, and terror responses, among others, green advertising can influence customers to move away from consumption patterns that contribute to climate change and toward a low-carbon society.

## 5.2. Advertising and social norms

Advertising has a big influence on how people behave as consumers and on social norms. A social norm represents a predominant behavioral pattern within a group, such a group of consumers. Social feedback in the form of advertisements helps make norms self-reinforcing and thus stable predominant norms (Nyborg et al., 2016). Norms are part of the informal institutions that generally are stubborn to change, in contrast to formal institutions that may change overnight through, for example, a government decision (North, 1990). Advertisement norms usually associate success and happiness with obtaining material possessions, ignoring the fact that the product has on the environment (Liu & Shrum, 2002). Throughout history, advertising has played a crucial role in fostering a consumerist society by persistently promoting norms that trigger the purchase of goods and services (Taylor, 2009). Strategies such as designing aspirational lives encourage people to spend more money to live a more perfect life, frequently with little consideration for the effects on the environment.

The constant emphasis on consumption is a major factor in the breakdown of societal ideals that place sustainability below material prosperity and status (Berglind & Nakata, 2005). Because advertising normalizes and glorifies the kind of excessive consumption that is intrinsic to the industry, it is intrinsically unsustainable and contributes to increased resource exploitation and production, which worsens climate change.

Many advertising methods still promote goods and services that have a big environmental impact, even in the face of increased environmental concerns. The luxury and fashion industries serve as prime examples of these practices (Aybaly et al., 2017), which put luxury and aesthetics ahead of environmental sustainability. Still, there are emerging tendencies in the advertising industry that suggest a more conscientious future. These include the creation of campaigns emphasizing sustainability, the use of eco-friendly materials in advertising materials themselves, and the adoption of digital techniques that reduce physical waste.

### 5.3. Media's role on the perception of consumption and sustainability

Public attitudes of consumption and sustainability are shaped by the widespread presence of media (Seelig, 2019), which includes print, social media, and television. Every media has a distinct impact on how people comprehend and engage with these ideas.

Commercials and sponsored material on television have historically had a big influence on how people behave. Such programming frequently downplays the negative effects on the environment while praising consumerism (Weber, 2010). Conversely, social media quickly modifies cultural norms and values, particularly for younger people. This platform is a potent instrument for raising customer knowledge of sustainability issues in addition to having an impact on their purchasing decisions. Print media still has power over some demographics even

though its influence is waning. Through marketing and editorial material that emphasizes luxury and leisure, it keeps changing people's impressions.

The media perpetuates a materialistic culture by saturating viewers with images of a perfected, consumption-focused lifestyle. With little disclosure of the environmental costs of products, this representation frequently comes at the expense of environmental stewardship (Schmitt et al., 2003). On the other hand, eco-friendly advertisements emphasizing the advantages of sustainable living are an increasing trend in media, especially digital platforms, which support sustainability.

Some consumers' opinions are changing to value sustainability because of the impact of the media (Richins, 2017). The growing market for eco-friendly goods and services serves as proof of this. This change is mostly due to the delivery of instructional content and targeted advertising efforts through a variety of media platforms (Richins, 2017). Moreover, increasing behavioral shifts are being documented due to media representations of the negative effects of unsustainable activities. With greater knowledge, consumers are choosing products that have a smaller environmental impact.

Influencers have been clearly used in social media campaigns to support sustainable businesses, resulting in viral movements that inspire environmentally friendly behavior (Hynes & Wilson, 2016). Reusable shopping bag and eco-friendly packaging solutions campaigns are prime examples of effective campaigns that generate a favorable customer response and high levels of involvement (Zafar et al., 2021). Advertisements that viewers felt were dishonest or that used "greenwashing" techniques have fallen flat. These incidents demonstrate how crucial honesty is when promoting sustainability. The media and advertising have a big impact on how people act toward the environment (Taylor, 2009). According to research conducted, conventional advertising strategies that encourage consumption might influence people to make decisions that are bad for the environment (Weber, 2010). This is due to the widespread perception in advertising that success and pleasure are correlated with material items. Those who view these advertisements could feel unsatisfied with their current circumstances and that they require more goods to be happy.

Diverse media platforms also influence how individuals view sustainability and consumerism (Schmitt et al., 2003). Conversely, younger people are particularly influenced by social media. Social media has the power to increase awareness of sustainability issues while also encouraging consumerism (Zafar et al., 2021). Even if print media's power is waning, it can still have an impact on public opinions by featuring luxury and lifestyle-focused material.

The way that consumption is portrayed in the media might be problematic. On the one hand, constantly exposing people to pictures of an idealized, consumerism-driven lifestyle (Richins, 2017), it might contribute to the emergence of a

materialistic culture. The repercussions of these decisions to the environment are frequently ignored. Eco-friendly advertising that emphasizes the advantages of leading a sustainable life are becoming more and more popular, especially in digital media.

It has been shown that media exposure raises people's awareness of sustainability (D'Souza et al., 2007). The expanding market for environmentally friendly goods and services is evidence of this. This change is being facilitated by targeted advertising and instructional content that is disseminated through multiple media platforms (Rademaker & Royne, 2018). Furthermore, media representations of the detrimental effects of unsustainable practices are influencing some consumers to make more educated decisions and choose products with less of an impact on the environment.

## **6. Discussion**

Our comprehensive literature overview of the relationship between advertising and climate-related implications indicates that the impact of advertising on consumer behavior and its environmental implications is complex. Advertising frequently promotes consumerism, influencing individuals to make choices that harm the environment through various techniques and tactics that spur consumerism. Cognitive psychology-based tactics like bandwagon effects and snob appeal are frequently used in advertising to target particular customer groups. These strategies have a big impact on consumer behavior and frequently promote consumption habits that are bad for the environment (Shahid & Paul, 2021; Chen et al., 2016; Cialdini, 2009). Comprehending these methodologies is key in formulating approaches to alleviate their detrimental effects on the environment. Additionally, advertising shapes societal norms, often prioritizing material consumption over sustainability, thereby fostering a culture of excessive consumption and contributing to resource exploitation and climate change.

Media also plays a crucial role in shaping perceptions of consumption and sustainability. A variety of media platforms, including print, social media, and television, have a big impact on how people view sustainability and consumption. Individual consumption behaviors are influenced by these views, which further contribute to climate change. While traditional media often downplay environmental concerns, digital platforms are increasingly supporting sustainability initiatives. Influencers have also played a role in promoting sustainable behavior through social media campaigns. Overall, advertising and media exert a significant influence on consumer behavior and attitudes towards sustainability, underscoring the need for more transparent and environmentally conscious advertising practices. More broadly, and as our review indicates, there is a substantial amount of empirical data that points to a negative correlation between materialism and pro-environmental attitudes and actions. According to Hurst et al. (2013), prioritizing materialistic values and goals causes consumption to rise and environmentally

unfriendly behavior to decline. Instead of concentrating on general green consumer behavior, we argue that advertising research should particularly address behaviors related to climate change to make a meaningful contribution to this paradigm shift.

To fully understand the additional economic activity and therefore the carbon emissions created by advertising, it is required to assess the influence of advertising as mediated by consumer behavior. The Internet's energy efficiency might be improved by reducing online advertisement traffic, but doing so would have a detrimental effect on the bulk of free internet services' current advertising-based business model (Pärssinen et al., 2018). The advertising industry drives and contributes to the funding of these free media outlets' informational offerings. Advertising contributes to carbon emissions indirectly since it drives the production of these communication services and content.

Derudder (2021) offers a cumulative assessment of social media's carbon footprint based on data from Greenspector, a software provider that assesses the effectiveness of digital mobile services. Ten popular social media sites —X, Facebook, Tik Tok, Reddit, Pinterest, Instagram, Snapchat, LinkedIn, Twitch, and YouTube— were measured by Greenspector for their carbon emissions produced in a single minute of use (i.e., reading through the news feed). These ten social media networks, all of which rely partially or fully on online advertising for funding, contributed 1.15 gecCO<sub>2</sub> (gram equivalent of CO<sub>2</sub>) every minute on average per user (Derudder 2021). For comparison, the average person's daily carbon footprint might be around 50 kgCO<sub>2</sub> equivalent per day, which averages to roughly 0.03 gecCO<sub>2</sub> per minute. So, 1.15 gecCO<sub>2</sub> per minute is considerably higher than average. Although social media platforms' carbon emissions are not directly attributable to the advertising sector, it supports a business model with a significant carbon impact.

There are, however, emerging trends towards more eco-friendly advertising campaigns. Consumer impressions of how businesses, goods, and services affect the environment can be influenced by advertising. Green advertising enhances consumers' corporate and brand attitudes and increases purchase intention by depicting a firm or brand as ecologically friendly (Hartmann & Apaolaza-Ibáñez, 2009).

Greenwashing, on the other hand, has regularly used green advertising. Additional data demonstrates that consumers' mistrust and skepticism of green advertising have grown because of years of extensive use of "greenwashing" (Sheehan & Atkinson, 2015). According to (Matthes et al., 2014), consumers who possess greater environmental awareness and involvement are also likely to be more skeptical and motivated to reduce their consumption-related emissions.

In the following, we next discuss how social marketing and similar environmentally informed advertising approaches could promote pro-environmental and climate friendly consumerism.

### 6.1. Social Marketing

There are two sides to the social marketing framework when it comes to advertising and environmental challenges. Although it has traditionally been linked to encouraging purchasing habits that are incompatible with environmental sustainability, its potential as a positive force is becoming more widely acknowledged (Peattie & Peattie, 2009). Through the strategic use of advertising, marketers can support the larger objective of ecological preservation by promoting sustainable consumption and environmental care.

Creating advertising messaging that inspires group action toward a more sustainable future in addition to informing and persuading is still a current challenge. The relationship between advertising, consumer behavior, and environmental sustainability should be further investigated to find novel ways to use marketing communications to protect the environment.

### 6.2. Corporate promotional campaigns

Organizations have strong incentives to take part in actions that reshape the discourse to support their desired brand results and public opinion can be significantly influenced by advertising campaigns. For example, a controlled experiment (Pfau et al., 2007) showed that test subjects' support for various policy proposals could be dramatically modified by repeated exposure to well worded messaging. Using marketing professionals to influence product decision-making in favor of desired results has become standard practice for a wide range of companies (Mix & Waldo, 2015). These advertisement campaigns can be viewed as calculated communication strategies with the intention of changing public and key actor views to achieve particular objectives.

Fossil fuel firms use image and problem advertising as two of their promotional tactics. Issue advertising is the process by which an organization creates media messages to promote its stance on political or social issues. It is also referred to as advocacy advertising, single-issue advertising, controversy advertising, and legislative issue advertising (Sethi, 1977). They usually have a contextual constraint and concentrate on a certain problem.

Image advertising is a second type of advertising for the corporate sector. The objective is to enhance the credibility and standing of the company funding the advertisement (Heald, 1980). These are longer-term initiatives that are unrelated to any political problem. Image advertising emphasizes the value of the company's "intangible" components in addition to its tangible ones. It is thought that creating a corporate image and identity helps to foster and preserve loyalty and trust among

both internal and "external" audiences, such as employees and customers. A company's reputation is mostly developed through image advertising. It increases the firm's appeal and gives it a competitive edge over competitors.

It is also believed that image advertising is a component of a business's "social responsibility." Businesses are supposed to demonstrate their interest in and dedication to endeavors beyond the financial by paying attention to their "triple bottom line" (financial, social, and environmental) performance (Pomeroy & Johnson, 2009). However, modern businesses understand social responsibility as a broad obligation that goes beyond benefits to shareholders and environmental commitments to offset polluting behaviors.

Managing the reputation of the corporate sector is part of this (Barnett & Hoffman, 2008). Indeed, corporate reputation is viewed as a significant asset in managing risk, whether the more general risks of shifting shareholder value or the more specific risks of day-to-day operations, which is why promotional activities in support of a corporation's social responsibility are common in the oil sector, for example.

### 6.3. Social media

Another important factor in recent years has become the social media and the impact of celebrity endorsements on the effectiveness of marketing initiatives. Some initiatives specifically aimed to promote sustainability have been critically assessed (Erdogan, 1999). A foundational understanding of the mechanisms through which celebrity endorsements influence consumer attitudes and behaviors and their role in sustainable marketing is provided in (Erdogan, 1999). The study indicates that celebrity endorsements can significantly enhance the appeal and effectiveness of environmental messaging and plays a crucial role in shaping consumer behavior and engagement with sustainable products and practices (Erdogan, 1999).

#### *6.3.1. Celebrity endorsements and its impact in climate-driven decision-making*

Celebrities are frequently used in marketing initiatives, especially those that promote environmental preservation, all over the world. Although celebrity endorsements are common, their effectiveness is yet to be demonstrated (Doyle et al., 2017). Celebrity endorsements have been used more often in environmental conservation since the 1990s.

Achieving environmental goals usually requires pro-environmental habits to be taken, like adopting sustainable diets and lifestyles, and effective communication to a variety of audiences. Therefore, to optimize the possibility of success, conservationists must ensure that their use of conservation marketing - and especially celebrity endorsements - is grounded in evidence. Celebrity endorsements are now a common marketing tactic (Tanaka et al., 2015). Celebrities' recognizable individuals and well-known to a particular audience (Boykoff & Goodman, 2009). They also have more notable activities and greater agency than the average member of that audience - that is, more resources or ability to affect the course of events.

A call for attention to the need for more research and thorough analysis of the impact of celebrity endorsement on environmental issues has not yet been conducted (Anderson, 2011). Despite this, their continued use has been motivated by the belief that celebrities' symbolic influence will lead to successful environmental action (Craig, 2019). Messages have been developed specifically for several studies, given by both celebrities and non-celebrities (Duthie et al., 2017) to assess participants' propensity to interact with an advertisement and memory of the message, to determine the efficacy of celebrities in conservation marketing. According to Gbadamosi, (2019), Gbadamosi (2019) celebrities are widely used in advertising worldwide.

It is usually very hard to assess whether celebrities are in fact successful in achieving climate-driven advertisement goals (Britt, 2000). Overall, it has been perceived that no research has really cleared out the applicability of celebrity attributes in marketing literature to influence advertisement effectiveness (Thomas & Johnson, 2017) in an environmental setting, or how to employ these attributes to inform endorser selection.

Reaching people who might not otherwise be reached can be accomplished by strategically utilizing the access that celebrities provide. In the sphere of international development, there have been discussions and elites, including politicians, derive pleasure from interacting with celebrities because it bolsters their position and improves their image (Brockington, 2014). Not only may well-known persons grant access, but they can also encourage conversation and draw in politicians and business leaders, which might not happen otherwise.

### *6.3.2. Examples of celebrity endorsed campaigns*

Celebrity involvement has taken many forms. For example, Jackie Chan has supported the messages of non-governmental organizations (NGOs) (Olmedo et al., 2020). Other examples of celebrity involvement include the founding of institutions centered around a celebrity's reputation and brand, such as the Jane Goodall Institute, and participation in high-level political forums, such as Leonardo DiCaprio's 2014 speech at the UN climate change summit (Doyle et al., 2017). The establishment of celebrity liaison in well-known environmental non-governmental organizations and the participation of Hollywood talent management corporations in managing celebrities' humanitarian interests are indicative of this (Brockington, 2017).

Numerous goods, including food, makeup, clothing, carbonated drinks, and sports companies, have received their celebrity endorsement (Englund et al., 2020). The high frequency of celebrity endorsements, which is consistent with other marketing trends (Roy & Mishra, 2018), could be attributed to the fact that celebrities and musicians are frequently highlighted in the media (Jyothi & Rajkumar, 2005), making them highly recognizable to viewers. James Cameron started his own effort to stop the Belo Monte Dam in Brazil after the release of the film *Avatar*, which he directed. According to (Hanna et al., 2016), Cameron's involvement mobilized thousands of people to oppose the dam's construction, increased media attention to the issue, and helped the Brazilian courts take the indigenous and environmental advocates' arguments seriously.

### 6.3.3. *The Greenwashing phenomena*

Greenwashed ads use vague and uninformative claims (e.g., green, eco-friendly, sustainable, natural, etc.) that are open to interpretation in place of precise technical terms and information (e.g., 100% biodegradable, organic agriculture, made from 80% recycled plastics, etc.) (D'Souza, 2004). It is therefore not surprising that consumers are often unable to identify greencraft in advertising, especially among those who have a high level of environmental care or understanding (Fernandes et al., 2020). Most consumers do not consider greenwashing promises to be misleading unless they have received specialized training to identify deceptive communications.

Connecting fake green claims with images of nature triggers an emotive persuasive mechanism that relies on customers' natural attraction (Schmuck et al., 2018). Customers tend to see products with "green" features favorably (Sörqvist et al., 2015). Therefore, the existence of green claims, even if they are imprecise or deceptive, may cause consumers to underestimate the carbon emissions linked to their purchase (Gorissen & Weijters, 2016).

In addition to its direct carbon footprint, the advertising sector fuels unsustainable economic growth, encourages climate-harmful shopping, and greenwashes

polluting goods and businesses. But advertising can also be quite important in the fight against climate change (Kopf et al., 2011). There is evidence to support advertising's involvement in promoting economic growth and, consequently, consumption, even though it is still uncertain whether advertising can raise overall aggregate consumption.

The advertising sector can resist greenwashing, lower its carbon impact, and sever links with companies and clients who contribute to pollution. Additionally, advertising can influence consumers' decisions among several options, but it can also spur purchases that would not have happened in the absence of advertising (Molinari & Turino, 2018). In fact, household consumption decisions account for over 60% of global greenhouse gas emissions (Ivanova et al., 2016). The dispute over whether advertising raises overall consumption levels or just redistributes consumption without increasing it at the macroeconomic level is linked to the question of whether advertising exacerbates environmental concerns (Reekie & Allen, 1983). While the latter suggests that advertising only modifies consumer behavior toward or away from more climate-harmful consumption behaviors, the former would imply that advertising raises emissions and contributes to resource depletion.

#### *6.3.4. The concept of green de-marketing*

Because consumption is inextricably linked to resource usage, increasing consumption—even if it is less climate-harmful—may conflict with actions that conserve the environment. While increasing demand for products or services is marketing's primary goal, there are several circumstances in which it may be preferable to utilize marketing to decrease demand.

Demarketing is categorized by Kotler's three-category framework as a way for businesses to limit demand for their goods to promote the general welfare, keep out undesirable customer segments, and indicate inadequacy (Kotler, 2011). For example, Patagonia's 'Don't buy this jacket' ad from 2011 (Hwang et al., 2016) brought attention to the environmental impact of customers and encouraged them to reduce their consumption.

Rather than being mutually exclusive, green demarketing and green advertising work in tandem to promote the adoption of sustainable consumption habits. Customers would find the behavioral adjustments encouraged by green demarketing more appealing if these efforts guaranteed symbolic rewards for individuals who cut back on their use of goods that affect the environment (Sekhon & Armstrong Soule, 2020). Because giving up consumption does not directly help individuals symbolically, it is required to engage consumers with a visual signal that communicates environmental motives for reducing consumption of climate-harmful items.

## 7. Conclusions

Sustainability has been a major focus of worldwide research and policy ever since the Brundtland Report was released in 1987 (Keeble, 1988). Nevertheless, the effects of advertising on the environment have received little attention from either research or practice. This thesis tries to fill this gap, concentrating on the ways that advertising affects environmental sustainability and climate change. As our literature review demonstrates, advertising plays a major role in fostering materialism and consumption in modern Western culture (Dittmar, 2007) and encouraging unsustainable lifestyles (Kasser, 2016). As shown herein, specific strategies and techniques are used by the advertisement industry to promote consumerism, and by creating societal norms and values that prioritize material consumption over sustainable practices. Moreover, different forms of media shape perceptions of consumption and sustainability. There is, however a complicated and dualistic link between environmental sustainability and advertising. On the one hand, advertising promotes a consumerist culture that exacerbates pollution and depletes resources, both of which have a negative impact on the environment (Hackley, 2002). On the other hand, advertising can also serve as a vehicle for the promotion of sustainable products and practices, highlighting its dual function in aggravating and mitigating environmental problems (Cohen et al., 2005).

It is feasible to create more successful methods for encouraging sustainable consumption by knowing how the media impacts these beliefs (Seelig, 2019; Weber, 2010; Hynes & Wilson, 2016; Zafar et al., 2021). Giving sustainability and ethical issues top priority, can facilitate that corporate executives might lessen the environmental effect of their advertising. Businesses may significantly contribute to the advancement of environmental sustainability and the mitigation of climate change, modifying their advertising strategies to encourage sustainable lives and activities.

As also, elaborated on in this thesis that social marketing could encourage ecological preservation and sustainable consumption, hence, could be a beneficial force for environmental sustainability. A current challenge is developing persuasive advertising messaging that motivates group action toward sustainability (Peattie & Peattie, 2009). The ways in which marketing communications can help achieve environmental goals require further investigation. To enhance their objectives and sway public opinion, corporations employ issue and image advertising. While image advertising seeks to improve a company's reputation and sense of social responsibility, issue advertising concentrates on certain social or political topics (Sethi, 1977; Heald, 1980). These tactics assist in a company's triple bottom line support and corporate risk management (Pomeroy & Johnson, 2009).

The attractiveness and potency of environmental messaging can be greatly increased using celebrity endorsements. The public's support for sustainability issues can be mobilized and brought to light by celebrities (Erdogan, 1999; Doyle et al., 2017). However, more investigation is needed to see how well these

endorsements work to achieve long-term environmental goals (Anderson, 2011; Craig, 2019). The idea of green de-marketing is to encourage consumers to purchase fewer products that are damaging to the environment. This strategy highlights the environmental effect of consumer choices, as seen by advertisements like Patagonia's 'Don't Buy This Jacket,' which urges customers to adopt sustainable buying habits (Hwang et al., 2016). Providing symbolic incentives for lowering consumption, the green de-marketing and green advertising together can promote sustainable consumer behavior (Sekhon & Armstrong Soule, 2020).

As a personal conclusion from the authors, we conclude that advertisement is part of our daily lives and it will continue influencing the way we behave, consume and address environmental urges. Nevertheless, there is basic knowledge available and positive trends that showcase the opportunity case for traditional environmental campaigns to become not just truly mainstreamed, but also authentic and relevant. It is crucial to start considering responsible and ethical advertising in policies and include environmental friendly and sustainability strategies and frameworks as part of our policies.

## 8. References

1. Anderson, A. (2011). Sources, media, and modes of climate change communication: The role of celebrities. *WIREs Climate Change*, 2(4), 535-546. <https://doi.org/10.1002/wcc.119>
2. Ascend 2 (2019). Digital marketing report, Survey Summary. Retrieved from <http://ascend2.com/wp-content/uploads/2018/10/Ascend2-2019-Digital-Marketing-Strategies-Report-181005.pdf>.
3. Aybaly, R., Guerquin-Kern, L., Manière, I. C., Madacova, D., & Holt, J. V. (2017). Sustainability practices in the luxury industry: How can one be sustainable in an over-consumptive environment? *Procedia Computer Science*, 122, 541-547. <https://doi.org/10.1016/j.procs.2017.11.404>
4. Bagozzi, R. P., & Moore, D. J. (1994). Public service advertisements: Emotions and empathy guide prosocial behavior. *Journal of Marketing*, 58(1), 56–70. <https://doi.org/10.2307/1252251>
5. Bandura, Albert. (2020). Social Cognitive Theory: An Agentic Perspective. *Psychology: the Journal of the Hellenic Psychological Society*. 12. 313. [10.12681/psy\\_hps.23964](https://doi.org/10.12681/psy_hps.23964).
6. Barnett, M. L., & Hoffman, A. J. (2008). Beyond Corporate Reputation: Managing Reputational Interdependence. *Corporate Reputation Review*, 11(1), 1-9. <https://doi.org/10.1057/crr.2008.2>
7. Berglind, M., & Nakata, C. (2005). Cause-related marketing: More buck than bang? *Business Horizons*, 48(5), 443-453. <https://doi.org/10.1016/j.bushor.2005.04.008>
8. Boykoff, M. T., & Goodman, M. K. (2009). Conspicuous redemption? Reflections on the promises and perils of the ‘Celebritization’ of climate change. *Geoforum*, 40(3), 395-406. <https://doi.org/10.1016/j.geoforum.2008.04.006>
9. Britt, S. H. (2000). Are So-called Successful Advertising Campaigns Really Successful? *Journal of Advertising Research*, 40(6), 25-31. <https://doi.org/10.2501/JAR-40-6-25-31>
10. Brockington, D. (2014). *Celebrity Advocacy and International Development* (0 ed.). Routledge. <https://doi.org/10.4324/9781315886978>
11. Brockington, D. (2017). Environment and Celebrity. En D. Richardson, N. Castree, M. F. Goodchild, A. Kobayashi, W. Liu, & R. A. Marston (Eds.), *International Encyclopedia of Geography* (1.<sup>a</sup> ed., pp. 1-6). Wiley. <https://doi.org/10.1002/9781118786352.wbieg0648>
12. Brulle, R. J., & Young, L. E. (2007). Advertising, Individual Consumption Levels, and the Natural Environment, 1900–2000. *Sociological Inquiry*, 77(4), 522-542. <https://doi.org/10.1111/j.1475-682X.2007.00208.x>
13. Chen, L. D., Lai, X., Wang, N. M., & Huang, W. (2016, June). Research in Progress: the Snob and bandwagon effects on Consumers' Purchase

- Intention under Different Promotion Strategies. In PACIS (p. 118).
14. Chia, S. C. (2010). How Social Influence Mediates Media Effects on Adolescents' Materialism. *Communication Research*, 37(3), 400-419. <https://doi.org/10.1177/0093650210362463>
  15. Cohen, M. J., Comrov, A., & Hoffner, B. (2005). The new politics of consumption: Promoting sustainability in the American marketplace. *Sustainability: Science, Practice and Policy*, 1(1), 58-76. <https://doi.org/10.1080/15487733.2005.11907965>
  16. Cialdini, R. B. (2009). *Influence: The psychology of persuasion*. HarperCollins.
  17. Corner, A., & Randall, A. (2011). Selling climate change? The limitations of social marketing as a strategy for climate change public engagement. *Global Environmental Change*, 21(3), 1005-1014. <https://doi.org/10.1016/j.gloenvcha.2011.05.002>
  18. Craig, G. (2019). Sustainable Everyday Life and Celebrity Environmental Advocacy in *Hugh's War on Waste*. *Environmental Communication*, 13(6), 775-789. <https://doi.org/10.1080/17524032.2018.1459770>
  19. De Hoog, N., Stroebe, W., & De Wit, J. B. F. (2005). The Impact of Fear Appeals on Processing and Acceptance of Action Recommendations. *Personality and Social Psychology Bulletin*, 31(1), 24-33. <https://doi.org/10.1177/0146167204271321>
  20. Denyer, D., & Tranfield, D. (2009). Producing a systematic review. In D. A. Buchanan & A. Bryman (Eds.), *The Sage handbook of organizational research methods* (pp. 671–689). Sage Publications Ltd.
  21. Derudder, K. 2021. "What is the environmental footprint for social media applications?" 2021 Edition. Greenspector. <https://greenspector.com/en/social-media-2021/>.
  22. Dimofte, C. V., Goodstein, R. C., & Brumbaugh, A. M. (2015). A social identity perspective on aspirational advertising: Implicit threats to collective self-esteem and strategies to overcome them. *Journal of Consumer Psychology*, 25(3), 416-430. <https://doi.org/10.1016/j.jcps.2014.12.001>
  23. Dittmar, H. (2007). *Consumer culture, identity and well-being: The search for the 'good life' and the 'body perfect'*. Psychology press.
  24. Doyle, J., Farrell, N., & Goodman, M. K. (2017). *Celebrities and Climate Change* (Vol. 1). Oxford University Press. <https://doi.org/10.1093/acrefore/9780190228620.013.596>
  25. D'Souza, C. (2004). Ecolabel programmes: A stakeholder (consumer) perspective. *Corporate Communications: An International Journal*, 9(3), 179-188. <https://doi.org/10.1108/13563280410551105>
  26. D'Souza, Clare & Taghian, Mehdi & Lamb, Peter & Peretiatko, Roman. (2007). Green decisions: Demographics and consumer understanding of environmental labels. *International Journal of Consumer Studies*. 31. 371 - 376. [10.1111/j.1470-6431.2006.00567.x](https://doi.org/10.1111/j.1470-6431.2006.00567.x).
  27. Durante, K. M., & Laran, J. (2016). The effect of stress on consumer saving

- and spending. *Journal of Marketing Research*, 53(5), 814-828.
28. Duthie, E., Veríssimo, D., Keane, A., & Knight, A. T. (2017). The effectiveness of celebrities in conservation marketing. *PLOS ONE*, 12(7), e0180027. <https://doi.org/10.1371/journal.pone.0180027>
  29. Englund, T. R., Zhou, M., Hedrick, V. E., & Kraak, V. I. (2020). How Branded Marketing and Media Campaigns Can Support a Healthy Diet and Food Well-Being for Americans: Evidence for 13 Campaigns in the United States. *Journal of Nutrition Education and Behavior*, 52(1), 87-95. <https://doi.org/10.1016/j.jneb.2019.09.018>
  30. Erdogan, B. Zafer. (1999). Celebrity Endorsement: A Literature Review. *Journal of Marketing Management*. 15. 291-314. [10.1362/026725799784870379](https://doi.org/10.1362/026725799784870379).
  31. Fernandes, J., Segev, S., & Leopold, J. K. (2020). When consumers learn to spot deception in advertising: Testing a literacy intervention to combat greenwashing. *International Journal of Advertising*, 39(7), 1115-1149. <https://doi.org/10.1080/02650487.2020.1765656>
  32. Gbadamosi, A. (Ed.). (2019). *Exploring the Dynamics of Consumerism in Developing Nations*: IGI Global. <https://doi.org/10.4018/978-1-5225-7906-9>
  33. Good, M. C., & Hyman, M. R. (2021). Direct and indirect effects of fear-of-missing-out appeals on purchase likelihood. *Journal of Consumer Behaviour*, 20(3), 564-576. <https://doi.org/10.1002/cb.1885>
  34. Gorissen, K., & Weijters, B. (2016). The negative footprint illusion: Perceptual bias in sustainable food consumption. *Journal of Environmental Psychology*, 45, 50-65. <https://doi.org/10.1016/j.jenvp.2015.11.009>
  35. Grimes, A. (2008). Towards an integrated model of low attention advertising effects: A perceptual-conceptual framework. *European Journal of Marketing*, 42(1/2), 69-86. <https://doi.org/10.1108/03090560810840916>
  36. Hackley, C. (2002). The Panoptic Role of Advertising Agencies in the Production of Consumer Culture. *Consumption Markets & Culture*, 5(3), 211-229. <https://doi.org/10.1080/10253860290031640>
  37. Hanna, P., Langdon, E. J., & Vanclay, F. (2016). Indigenous rights, performativity and protest. *Land Use Policy*, 50, 490-506. <https://doi.org/10.1016/j.landusepol.2015.06.034>
  38. Hartmann, P., Apaolaza, V., & Alija, P. (2013). Nature imagery in advertising: Attention restoration and memory effects. *International Journal of Advertising*, 32(2), 183-210. <https://doi.org/10.2501/IJA-32-2-183-210>
  39. Hartmann, P., & Apaolaza-Ibáñez, V. (2009). Green advertising revisited: Conditioning virtual nature experiences. *International Journal of Advertising*, 28(4), 715-739. <https://doi.org/10.2501/S0265048709200837>
  40. Heald, M. (1980). *Keeping the Corporate Image: Public Relations and Business, 1900–1950*. By Richard S. Tedlow. Greenwich, Conn., JAI Press, 1979. Pp. xx + 233. \$26.50. *Business History Review*, 54(3), 412-413.

<https://doi.org/10.2307/3114255>

41. Hurst, M., Dittmar, H., Bond, R., & Kasser, T. (2013). The relationship between materialistic values and environmental attitudes and behaviors: A meta-analysis. *Journal of Environmental Psychology*, *36*, 257-269. <https://doi.org/10.1016/j.jenvp.2013.09.003>
42. Hwang, C., Lee, Y., Diddi, S., & Karpova, E. (2016). “Don’t buy this jacket”: Consumer reaction toward anti-consumption apparel advertisement. *Journal of Fashion Marketing and Management: An International Journal*, *20*(4), 435-452. <https://doi.org/10.1108/JFMM-12-2014-0087>
43. Hynes, N., & Wilson, J. (2016). I do it, but don’t tell anyone! Personal values, personal and social norms: Can social media play a role in changing pro-environmental behaviors? *Technological Forecasting and Social Change*, *111*, 349-359. <https://doi.org/10.1016/j.techfore.2016.06.034>
44. Ivanova, D., Stadler, K., Steen-Olsen, K., Wood, R., Vita, G., Tukker, A., & Hertwich, E. G. (2016). Environmental Impact Assessment of Household Consumption. *Journal of Industrial Ecology*, *20*(3), 526-536. <https://doi.org/10.1111/jiec.12371>
45. Jyothi, K. T., & Rajkumar, C. S. (2005). An Empirical Study On The Effectiveness of Celebrity Advertisements. *Asia Pacific Business Review*, *1*(2), 50-62. <https://doi.org/10.1177/097324700500100207>
46. Kangun, N., Carlson, L., & Grove, S. J. (1991). Environmental Advertising Claims: A Preliminary Investigation. *Journal of Public Policy & Marketing*, *10*(2), 47-58. <https://doi.org/10.1177/074391569101000203>
47. Kasser, T. (2016). Materialistic values and goals. *Annual review of psychology*, *67*, 489-514.
48. Keeble, B. R. (1988). The Brundtland report: ‘Our common future’. *Medicine and war*, *4*(1), 17-25.
49. Klein, N. (2010). No logo. Vintage Canada.
50. Knopf, J. W. (2006). Doing a literature review. *PS: Political Science & Politics*, *39*(1), 127-132.
51. Kopf, D. A., Torres, I. M., & Enomoto, C. (2011). Advertising’s Unintended Consequence. *Journal of Advertising*, *40*(4), 5-18. <https://doi.org/10.2753/JOA0091-3367400401>
52. Kotler, P. (2011). Reinventing Marketing to Manage the Environmental Imperative. *Journal of Marketing*, *75*(4), 132-135. <https://doi.org/10.1509/jmkg.75.4.132>
53. Kotler, P., & Lee, N. R. (2008). *Social marketing: Influencing behaviors for good* (3. ed). Sage Publications.
54. Krause, R. J., & Rucker, D. D. (2020). Strategic Storytelling: When Narratives Help Versus Hurt the Persuasive Power of Facts. *Personality and Social Psychology Bulletin*, *46*(2), 216-227. <https://doi.org/10.1177/0146167219853845>
55. Kyiv National Economic University named after V. Hetman, & Zahladko,

- V. (2020). Priority Areas for the Development and Implementation of Alternative Digital Marketing Instruments. *Modern Economics*, 24(1), 60-68. [https://doi.org/10.31521/modecon.V24\(2020\)-10](https://doi.org/10.31521/modecon.V24(2020)-10)
56. Lee, J. A., Sudarshan, S., Sussman, K. L., Bright, L. F., & Eastin, M. S. (2022). Why are consumers following social media influencers on Instagram? Exploration of consumers' motives for following influencers and the role of materialism. *International Journal of Advertising*, 41(1), 78-100. <https://doi.org/10.1080/02650487.2021.1964226>
57. Leonidou, Leonidas & Leonidou, Constantinos & Palihawadana, Dayananda & Hultman, Magnus. (2011). Evaluating the green advertising practices of international firms: A trend analysis. *International Marketing Review - INT MARK REV*. 28. 6-33. [10.1108/02651331111107080](https://doi.org/10.1108/02651331111107080).
58. Liu, Y., & Shrum, L. J. (2002). What is Interactivity and is it Always Such a Good Thing? Implications of Definition, Person, and Situation for the Influence of Interactivity on Advertising Effectiveness. *Journal of Advertising*, 31(4), 53-64. <https://doi.org/10.1080/00913367.2002.10673685>
59. Matthes, J., Wonneberger, A., & Schmuck, D. (2014). Consumers' green involvement and the persuasive effects of emotional versus functional ads. *Journal of Business Research*, 67(9), 1885-1893. <https://doi.org/10.1016/j.jbusres.2013.11.054>
60. Megura, M., & Gunderson, R. (2022). Better poison is the cure? Critically examining fossil fuel companies, climate change framing, and corporate sustainability reports. *Energy Research & Social Science*, 85, 102388. <https://doi.org/10.1016/j.erss.2021.102388>
61. Meyer, R., & Johnson, E. J. (1995). Empirical Generalizations in the Modeling of Consumer Choice. *Marketing Science*, 14(3\_supplement), G180-G189. <https://doi.org/10.1287/mksc.14.3.G180>
62. Mix, T. L., & Waldo, K. G. (2015). Know(ing) Your Power: Risk Society, Astroturf Campaigns, and the Battle over the Red Rock Coal-Fired Plant. *The Sociological Quarterly*, 56(1), 125-151. <https://doi.org/10.1111/tsq.12065>
63. Molinari, B., & Turino, F. (2018). Advertising and Aggregate Consumption: A Bayesian DSGE Assessment. *The Economic Journal*, 128(613), 2106-2130. <https://doi.org/10.1111/eoj.12514>
64. Morin, C. M. (2009). *Overcoming depression one step at a time*. Guilford Publications. <https://www.amazon.com/Overcoming-Depression-One-Step-Time/dp/1572243678>
65. Mostafa, M. M. (2007). Gender differences in Egyptian consumers' green purchase behavior: The effects of environmental knowledge, concern and attitude. *International Journal of Consumer Studies*, 31(3), 220-229. <https://doi.org/10.1111/j.1470-6431.2006.00523.x>
66. North, D. C. (1990). *Institutions, institutional change and economic performance*. Cambridge university press.

67. Nyborg, K., Anderies, J. M., Dannenberg, A., Lindahl, T., Schill, C., Schlüter, M., ... & De Zeeuw, A. (2016). Social norms as solutions. *Science*, 354(6308), 42-43.
68. Olmedo, A., Milner-Gulland, E. J., Challender, D. W. S., Cugnière, L., Dao, H. T. T., Nguyen, L. B., Nuno, A., Potier, E., Ribadeneira, M., Thomas-Walters, L., Wan, A. K. Y., Wang, Y., & Veríssimo, D. (2020). A scoping review of celebrity endorsement in environmental campaigns and evidence for its effectiveness. *Conservation Science and Practice*, 2(10), e261. <https://doi.org/10.1111/csp2.261>
69. Pärssinen, M., Kotila, M., Cuevas, R., Phansalkar, A., & Manner, J. (2018). Environmental impact assessment of online advertising. *Environmental Impact Assessment Review*, 73, 177-200. <https://doi.org/10.1016/j.eiar.2018.08.004>
70. Peattie, K., & Peattie, S. (2009). Social marketing: A pathway to consumption reduction? *Journal of Business Research*, 62(2), 260-268. <https://doi.org/10.1016/j.jbusres.2008.01.033>
71. Pfau, M., Haigh, M. M., Sims, J., & Wigley, S. (2007). The Influence of Corporate Front-Group Stealth Campaigns. *Communication Research*, 34(1), 73-99. <https://doi.org/10.1177/0093650206296083>
72. Pollay, R. W. (1986). The Distorted Mirror: Reflections on the Unintended Consequences of Advertising. *Journal of Marketing*, 50(2), 18-36. <https://doi.org/10.1177/002224298605000202>
73. Pomeroy, A., & Johnson, L. W. (2009). Constructing a Corporate Social Responsibility Reputation Using Corporate Image Advertising. *Australasian Marketing Journal*, 17(2), 106-114. <https://doi.org/10.1016/j.ausmj.2009.05.006>
74. Pärssinen, Matti & Kotila, Mikko & Cuevas, Rubén & Phansalkar, A. & Manner, J.. (2018). Environmental impact assessment of online advertising. *Environmental Impact Assessment Review*. 73. 177-200. [10.1016/j.eiar.2018.08.004](https://doi.org/10.1016/j.eiar.2018.08.004).
75. Rademaker, Claudia & Royne, Marla. (2018). Thinking green: How marketing managers select media for consumer acceptance. *Journal of Business Strategy*. 39. 30-38. [10.1108/JBS-05-2017-0070](https://doi.org/10.1108/JBS-05-2017-0070).
76. Reekie, W. D., & Allen, D. E. (1983). Hours of Work and Advertising: An International Comparison. *International Journal of Advertising*, 2(2), 99-107. <https://doi.org/10.1080/02650487.1983.11104962>
77. Richins, M. L. (2017). Materialism pathways: The processes that create and perpetuate materialism. *Journal of Consumer Psychology*, 27(4), 480-499. <https://doi.org/10.1016/j.jcps.2017.07.006>
78. Ritzer, George & Schor, Juliet & Holt, Douglas. (2001). The Consumer Society Reader. *Contemporary Sociology*. 30. 342. [10.2307/3089742](https://doi.org/10.2307/3089742).
79. Roy, S., & Mishra, A. S. (2018). The Dual Entertainment Theory In Celebrity Endorsements: The Role of Celebrity Worship And Profession. *Journal of Advertising Research*, 58(1), 33-50.

- <https://doi.org/10.2501/JAR-2018-009>
80. Schmitt, K. L., Woolf, K. D., & Anderson, D. R. (2003). Viewing the Viewers: Viewing Behaviors by Children and Adults During Television Programs and Commercials. *Journal of Communication*, 53(2), 265-281. <https://doi.org/10.1111/j.1460-2466.2003.tb02590.x>
  81. Schmuck, D., Matthes, J., & Naderer, B. (2018). Misleading Consumers with Green Advertising? An Affect–Reason–Involvement Account of Greenwashing Effects in Environmental Advertising. *Journal of Advertising*, 47(2), 127-145. <https://doi.org/10.1080/00913367.2018.1452652>
  82. Sheehan, K., & Atkinson, L. (Eds.). (2015). *Green Advertising and the Reluctant Consumer* (1st ed.). Routledge. <https://doi.org/10.4324/9781315779638>
  83. Schor, J., & Holt, D. B. (Eds.). (2011). *The consumer society reader*. The New Press.
  84. Schultz, P. W. (2014). Strategies for Promoting Pro Environmental Behavior: Lots of Tools but Few Instructions. *European Psychologist*, 19(2), 107-117. <https://doi.org/10.1027/1016-9040/a000163>
  85. Seelig, M. I. (2019). Popularizing the environment in modern media. *The Communication Review*, 22(1), 45-83. <https://doi.org/10.1080/10714421.2019.1569449>
  86. Sekhon, T. S., & Armstrong Soule, C. A. (2020). Conspicuous anticonsumption: When green demarketing brands restore symbolic benefits to anticonsumers. *Psychology & Marketing*, 37(2), 278-290. <https://doi.org/10.1002/mar.21299>
  87. Sethi, S. P. (1977). *Advocacy advertising and large corporations: Social conflict, big business image, the news media, and public policy*. Lexington Books.
  88. Shahid, S., & Paul, J. (2021). Intrinsic motivation of luxury consumers in an emerging market. *Journal of Retailing and Consumer Services*, 61, 102531.
  89. Smart Insights (2019). Digital strategy, transformation, and technologies statistics. Retrieved from <https://www.smartinsights.com/digital-marketing-strategy/100-must-see-marketing-stats/>.
  90. Sörqvist, P., Haga, A., Langeborg, L., Holmgren, M., Wallinder, M., Nörtl, A., Seager, P. B., & Marsh, J. E. (2015). The green halo: Mechanisms and limits of the eco-label effect. *Food Quality and Preference*, 43, 1-9. <https://doi.org/10.1016/j.foodqual.2015.02.001>
  91. Sörqvist, Patrik & Colding, Johan & Marsh, John. (2020). Psychological Obstacles to the Efficacy of Environmental Footprint Tools. *Environmental Research Letters*. 15. 10.1088/1748-9326/ab9968.
  92. Tanaka, A., Nguyen, C., & Romaniuk, J. (2015). The Strengths and Weaknesses of Celebrities as Branding and Creative Design Elements in Advertising. *Journal of Design, Business & Society*, 1(1), 57-75.

[https://doi.org/10.1386/dbs.1.1.57\\_1](https://doi.org/10.1386/dbs.1.1.57_1)

93. Taylor, T. D. (2009). Advertising and the conquest of culture. *Social Semiotics*, 19(4), 405-425. <https://doi.org/10.1080/10350330903361091>
94. Thomas, T., & Johnson, J. (2017). The Impact of Celebrity Expertise on Advertising Effectiveness: The Mediating Role of Celebrity Brand Fit. *Vision: The Journal of Business Perspective*, 21(4), 367-374. <https://doi.org/10.1177/0972262917733174>
95. Timperley, J. (2021). Advertising with a conscience. *The Lancet Planetary Health*, 5(3), e118-e119. [https://doi.org/10.1016/S2542-5196\(21\)00035-8](https://doi.org/10.1016/S2542-5196(21)00035-8)
96. Twenge, J. M., & Kasser, T. (2013). Generational Changes in Materialism and Work Centrality, 1976-2007: Associations With Temporal Changes in Societal Insecurity and Materialistic Role Modeling. *Personality and Social Psychology Bulletin*, 39(7), 883-897.
  - a. <https://doi.org/10.1177/0146167213484586>
97. Ukrainian Advertising Coalition (2019). The size of Ukrainian advertising and communication market in 2019 and forecast for 2020. Retrieved from <https://vrk.org.ua/ad-market/> [in Ukrainian].
98. Van den Bogaert, M., Hautoucs, A., & Poortvliet, G. (2019). The impact of herd behavior and contrarian behavior in online brand communities. *Journal of Interactive Marketing*, 47, 130-144.
99. Wang, K. S., Smith, D. V., & Delgado, M. R. (2016). Using fMRI to study reward processing in humans: Past, present, and future. *Journal of Neurophysiology*, 115(3), 1664-1678. <https://doi.org/10.1152/jn.00333.2015>
100. Weber, E. U. (2010). What shapes perceptions of climate change? *WIREs Climate Change*, 1(3), 332-342. <https://doi.org/10.1002/wcc.41>
101. Wilcox, G. B., & Gangadharbatla, H. (2006). What's changed? Does beer advertising affect consumption in the United States? *International Journal of Advertising*, 25(1), 35-50. <https://doi.org/10.1080/02650487.2006.11072950>
102. Yim, M. Y.-C., Kim, Y. K., & Lee, J. (2021). How to easily facilitate consumers' mental simulation through advertising: The effectiveness of self-referencing image dynamics on purchase intention. *International Journal of Advertising*, 40(5), 810-834. <https://doi.org/10.1080/02650487.2020.1801014>
103. Zafar, A. U., Shen, J., Ashfaq, M., & Shahzad, M. (2021). Social media and sustainable purchasing attitude: Role of trust in social media and environmental effectiveness. *Journal of Retailing and Consumer Services*, 63, 102751. <https://doi.org/10.1016/j.jretconser.2021.102751>
104. Zhao, F.-Y., Xu, P., Zheng, Z., Conduit, R., Xu, Y., Yue, L.-P., Wang, H.-R., Wang, Y.-M., Li, Y.-X., Li, C.-Y., Zhang, W.-J., Fu, Q.-Q., & Kennedy, G. A. (2023). Managing depression with complementary and alternative medicine therapies: A scientometric analysis and visualization of research activities. *Frontiers in Psychiatry*, 14, 1288346.

<https://doi.org/10.3389/fpsy.2023.1288346>