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Credibility of green advertising: six elements that drive credibility in green advertising

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The goal of this academic research was to examine to what extent sustainable advertising messages are perceived as credible by the Belgian consumer. We wanted to investigate how credibility arises in sustainable commercials and what the impact of credible green advertising can be. We started with a literature study to uncover possible determinants of credibility and were able to distinguish six elements that drive credibility in green advertising. These six elements are honesty, clearness, details, commitment, urgency, and shared value. In order to validate the elements with significant evidence and examine their impact on green motivation and brand consideration, we ran a survey in which our individual respondents saw 5 sustainable commercials. These were randomly selected from a collection of 95 commercials that had been broadcasted in Belgium in the last 24 months before August 2021. Six hundred respondents participated in this survey, representative for Belgian consumers aged 19 to 90 years old. The results make clear that credibility is lacking and the key to effectiveness on many levels. Our six elements explain 72% of credibility in green advertising. Credibility and its six elements explain 59% of consumers' motivation to prefer sustainable products over conventional products. Together they explain 28% of brand consideration of the advertised sustainable product. Future success of sustainability may depend on whether brands can initiate switching the mindset of consumers with green advertising. This requires that green advertising is honest, shows commitment and urgency, provides details and clearness, and focuses on shared value for companies and consumers. This research also allows the construction of an app that forecasts brand consideration based on the scores of the 8 predictors of consideration due to the high levels of explained variance.

KEYWORDS

sustainable advertising, brand consideration, motivation–behavior, advertising effectiveness, green advertisements

On green advertising and credibility

Toward a more sustainable society

“To live is to consume” writes [Borgmann \(2000, p. 418\)](#). For Borgmann, consumption has always been a part of everyday life, but there have been some profound changes in recent history. There is a significant growing consumption since the nineteenth century, upon the point where ecologists and scientists are saying overconsumption is ruining the environment ([Borgmann, 2000](#)). There is an urgency to search for a better balance between the benefits and costs of our consumption patterns ([Csikszentmihalyi, 2000](#)).

The concept of sustainable development is launched in 1987 by the World Commission on the Environment and Development, named Brundtland Commission. It represents the correlation between the economic, environmental, and social objectives of development (Danciu, 2013). More recently, in the year 2015, the 17 UN Sustainable Development Goals are adopted by all United Nations Member States. They address the most urgent challenges we face at this moment, such as poverty, inequality, climate change, and environmental degradation (Adams et al., 2020).

The definition of a green product is mainly used to describe products that protect or enhance the environment during their production process and time of use. Ideally, green products can even offer potential benefits to the environment (Bhardwaj et al., 2020). Elkington et al. (1990) list up the general characteristics of a green product in their book *The Green Consumer*. To summarize: a green product should not endanger the health of people or animals; damage the environment at any stage of its life; consume a disproportionate amount of energy and other resources; cause unnecessary waste during its production, use or disposal; involve use of or cruelty to animals; or use materials derived from threatened species or environments.

Prothero et al. (2011) highlight the need for adapted public policies and business systems that stimulate companies and people to produce and consume within ecological limits. They connect these alternative production and consumption patterns to socially responsible behavior. In the meantime, new sustainable business models are being developed and implemented to reduce the negative impact of businesses on the natural environment (Høgevold et al., 2014). This increases the level of environmental awareness and changes the way people live and the products they purchase (Do Paço and Reis, 2012).

In the twenty-first century, environmental issues become mainstream and start to change the presence of green products in the market (Sarkar, 2012). By accepting the green demands from the public as an opportunity, companies are able to gain competitive advantage at the expense of rivals that see these new challenges as a threat (Polonsky and Rosenberger, 2001). Some companies adapt to new forms of marketing, where environmental concerns combined with marketing strategies can lead to innovations and opportunities (Peattie and Crane, 2005). The existence and development of green claims in advertising provides an opportunity for genuine green companies as well to educate their consumers about the authenticity of these green claims. For Do Paço and Reis (2012) companies should actively learn the public to distinguish real from false environmental claims. But do companies know what consumers really care about, according to the expression of personal values and beliefs from the public?

Of course, all this fits into a larger frame work. In order to achieve sustainable development, we need to understand how the sustainable development goals can be used in the context of green advertising. Our work is part of the incorporation of key actors (corporations) and issues (increase sustainable behavior) described by Jørgensen and Wyborn in their systems approach (Jørgensen and Wyborn, 2018). In order to reach the end goal of sustainable consumption, it is important to understand the mechanisms and conditions on how the new language of advertising needs to develop

because in the end this research shows that the old advertising language simply does not work in the new era. We believe this is a small but essential contribution fueling the move toward sustainable economies. At the same time, new publications such as “Speak up now! Marketing in times of climate crises” by Vermeulen (2022) show that professionals are also embracing quantitative research to improve insights on how advertising can be improved in order to move consumers in to a more sustainable responsible behavioral modus. Using content analysis it is shown which ad features can boost or reduce credibility. We learn for instance that the use of a “local” storyline increases credibility. This also goes for an “activist” and “climate leadership” story line. Placing substantial emphasis on the organic product features reduces credibility. The joint effort of combining both academic methodologies and available resources in the marketing industry leads to new and innovative insights which can be used to inspire advertisers with effective practices.

Shared value with the consumer

The global climate crisis can be seen as a threat to existential human needs like control, certainty, health, and personal wellbeing. These threats can activate a state of individual and collective anxiety, and motivate people to participate in pro-environmental behavior and even activism to reduce all this stress and anxiety (Stollberg and Jonas, 2021). The idea that human wellbeing can be supported by using, producing, buying, selling, and consuming less products is almost a contradiction to the dominating paradigm of capitalism in our society. However, recent literature finds evidence that frequent engagement in pro-ecological actions and behavior could be positively correlated with personal wellbeing (Kasser, 2017).

Gleim et al. (2013) report that, despite consumers’ expressed concern for the environment, they are not purchasing green products and services as frequently as expected. Prothero et al. (2011) see a need for greater understanding of the reasons why consumers do not always behave in coordination with their own articulated green values. So how can we define these values and how do they work and interact in accordance with actual green behavior?

With the Theory of Basic Human Values, social psychologist Shalom Schwartz defines the nature of human values. He describes values as beliefs, cognitive structures that are closely linked to affect. Values refer as well to desirable goals and transcend specific actions and situations. They serve as standards or criteria and guide the selection or evaluation of actions, policies, people, and events. Values are ordered by importance relative to one another. The ordered set of values forms a system of value priorities. Cultures and individuals can be characterized by their values system. The relative importance of the set of relevant values guides action. Any change in attitude or behavior can have implications for multiple values (Schwartz, 2003).

Additionally, there is the new SHIFT model. The SHIFT model is an attempt to reinforce these values and motivational goals, and to encourage the consumers to shift toward ecologically sustainable

behavior. The SHIFT model claims that people are more likely to maintain positive sustainable behavior when companies consider how the SHIFT elements of Social influence, Habit formation, Individual self, Feelings and cognition, and Tangibility, can be better harnessed (White et al., 2019).

Tomşa et al. (2021) add the suggestion that the decision-making process of environmentally minded consumers is strongly correlated with the intention to adopt politically ethical behavior. That is a plausible reason why green advertising at the macro level tries to motivate consumers to help save the planet by preserving nature, reducing global warming, and even saving ourselves in the process. At the micro level, people are not always interested in all these higher goals and have sometimes more specific demands or side targets to strive for (Fowler and Close, 2012). The challenge for green companies is to address this properly and work on a set of shared values that they can practice by selling their green products to the interested audience. Donikini (2013) concludes: “It is difficult to influence consumer purchase behavior without first impacting attitudes and values. These values, however, take a concerted effort over a long period of time to change” (p. 43). Ottman et al. (2006) confirm that in green marketing communication, companies must present the unique product features and environmental benefits that match with the values of the consumers. In this study, we can confidently say one of the key elements for credible green advertising will be to find a set of shared values between the interests of a company and its consumers.

Commitment and marketing strategies for companies

“The future is less important than the present.” This was the general story told by rational, economic models in our modern society for a long period of time (Hardisty and Weber, 2009, p. 329). In that perspective, business attitudes to anything green or sustainable used to be defensive and negative. In recent years, scientific research, media coverage, and growing demands, encourage companies to act green (Vandermerwe and Oliff, 1990). Consumers also make efforts to gain knowledge about the environmental values of companies and products in order to make green purchase decisions (Bukhari et al., 2017). Because green products still represent only a share of the total market, there are opportunities for brands and companies to capture larger segments of the market (Gleim et al., 2013).

Menon and Menon (1997) note that environmental themes are beginning to reshape the landscape in which global companies compete. Companies increasingly recognize the many competitive advantages and opportunities that can be gained from eco-sustainability and green marketing (Sarkar, 2012). Green consumers are also very attractive to companies because they are usually willing and able to pay more for eco-friendly products (Tomşa et al., 2021). For these reasons, companies are adjusting their corporate strategies to deliver to the increasing green customer demands. Some are correcting misconceptions about their products, while others are actively positioning themselves as green-minded (Vandermerwe and Oliff, 1990). Marketing strategies to create a green corporate image and gain a certain

green competitive advantage, have become major topics in business scholars in recent years (Shafiqul Alam and Zahidul Islam, 2021). There is an evolution in the approach of green marketing, moving away from being a derivative of traditional marketing to becoming more of a general strategy for the whole brand or company (Dangelico and Vocalelli, 2017).

Polonsky and Rosenberger try to answer the million-dollar question for companies: “Can we be green, clean, and profitable all at the same time?” (Polonsky and Rosenberger, 2001, p. 21). In their opinion, green marketing must involve coordination across all areas of the company to be effective in the long-term. Tactical green actions in marketing might involve minimal efforts in other parts of the company and thus be used simply to exploit a short-term opportunity. This can eventually backfire when consumers become aware of the other less eco-friendly activities. An honest evaluation of the overall activities of a company might identify that green marketing opportunities will not always benefit the reputation in the long-term, if they are not grounded in genuine efforts to become green (Polonsky and Rosenberger, 2001).

Green consumers purchase green products as an individual attempt to be more environmentally friendly. With marketing as an integral part of companies, marketeers are trying to successfully place products in the market. Companies now aim to build a green brand image and use marketing as a tool to achieve this (Bukhari et al., 2017). Vermillion and Peart (2010) suggest that companies that focus on promoting green products do not always outperform their competitors in the marketplace. Some firms that promote green products do actually underperform their competitors.

Even when marketeers are willing to include more environmental issues in their activities, they rarely do so with a sustainable long-term approach. Companies that are only in it for the short-term results may be less committed to make the fundamental internal adjustments that are necessary to achieve real green change. By that, they will be less likely to maintain a decent strategic approach to green marketing and find it hard to keep consumer confidence over time (Polonsky and Rosenberger, 2001).

We see how important it can be for companies to show persistence in their environmental efforts and use of green marketing strategies. If you want to increase your personal green credibility as a company to potential consumers, you have to show commitment over a longer period of time to convince the people you are not just there for economic profit. Honest green marketing can be used as a tool to achieve this. Danciu (2013) argues: “Marketing has traditionally been seen as part of the problem. It helped to create many unsustainable habits we now need to change, but it can also be part of the solution, making new alternatives desirable” (Danciu, 2013, p. 386).

Characteristics and challenges of green advertising

Green advertising is defined by Banerjee et al. (1995) as advertising that addresses the relationship between a product or service and the environment, promotes a green lifestyle, or presents a corporate image of environmental responsibility. Green advertisements almost always contain green claims. That is any

type of claim where a reference is made to the environmental or ecological aspects of the production, packaging, distribution, use and consumption, or disposal of the product. A green claim can also give information about the environmental impact of a company's production process, or about the company's mission and values regarding its impact on the environment (Sarkar, 2012).

Green advertising arises as a niche focusing on specific environmental problems in the 1970s. It starts developing in the late 1980s and 1990s due to growing public and media attention for environmental catastrophes as the Chernobyl nuclear explosion and the Exxon Valdez oil disaster (Sarkar, 2012). Banerjee et al. are in 1995 among the first to explain the concept of advertising greenness, defined as the level of environmental focus in advertisements (Leonidou et al., 2014). Two years earlier, in 1993, Carlson et al. make a classification of focal points in green advertising. That includes focusing on the eco-friendly attributes of a product, focusing on the environmental benefits of the production process, and giving environmental facts (Leonidou et al., 2014). We even see an evolution of goals in green advertising, starting from consumers should minimize waste in their own households, to consumers should save the planet by their actions (Fowler and Close, 2012). When concerns over global warming are growing at the beginning of the twenty-first century, green advertising begins to appear more frequently (Sarkar, 2012).

We have seen before that companies want to create a green brand image and use standard advertising strategies to achieve this (Bukhari et al., 2017). We will mention two classic models in the context of green advertising and highlight the urgency for new strategies that are adapted to the specific green characteristics and challenges.

There is Legitimacy Theory, which says that organizations seek to legitimize their behavior in society through the communication of specific messages to different stakeholders. According to that, green advertisements can be perceived as messages from companies to achieve legitimacy for their actions in the eyes of the consumers and society (Leonidou et al., 2014). It should not surprise however, that some consumers may not fully trust such advertisements, because some companies that could not prevent or even may be partly responsible for the current state of environmental degradation and global warming, now want to advertise products that can help save the planet if you buy them (Fowler and Close, 2012).

Persuasive Advertising techniques are based on convincing consumers to purchase a product or service. The tactic is often to make the product somehow look better than it really is. Leonidou et al. (2011) explain that in green advertising the many complex and challenging aspects of the environmental issues need more cautious handling. For them, credible environmental claims should be detailed, specific, and truthful. Only when green claims in advertising are clear and understandable, they will be considered as valid by the receivers of the message (Leonidou et al., 2011). Most of all, it is essential for a company to actually deliver what is promised in the advertising message (Leonidou et al., 2014).

Despite the growing existence of green marketing, many marketers still do not have enough tools to analyze the success of green advertising by firms in relation to the attitudes, intentions, and behaviors of their consumers (Do Paço and Reis, 2012).

Tucker et al. (2012) note that the implementation of standard advertisement tactics on green advertising can run the risk of serious backlash, because the nature of the consumers' response to such green commercials has not been well examined. Advertisers can put green credentials on their products as well, but the impact of these green credentials is not well understood at this moment (Bickart and Ruth, 2012). Another potential pitfall in the outcome of many green claims is the long-term perspective. Because environmental benefits often occur in the future or cannot be seen at all, there is a need for credence quality to these claims (Tucker et al., 2012).

It made Polonsky and Rosenberger (2001) question what sort of environmental information could best be communicated and how it should be communicated to the public. Giving much information could possibly result in data overload for the consumer. For Leonidou et al. (2014) companies should clearly explain the environmental benefits of their business practices, indicate how these benefits are superior to those of their competitors, and provide specific, detailed, and accurate information to support these green claims. A study by Chen and Wu (2020) examines the impact of how green messages are framed and when they are presented to the consumers in advertising. Their participants perceive the first message they see as the most important aspect of the product. For Chen and Wu, it is clear that a double message, product performance plus environmental benefits, will result in better green brand attitudes toward the product. Advertisers should take this into account and associate the green claim in the advertisement directly with the product they want to promote. Consumers need to be informed on the existence of a green product and its relevant benefits, but also need to know exactly what makes this product environmentally friendly (Gleim et al., 2013).

Providing a clear formulation on the green claim and giving enough details and valid information to support it, can also highlight the urgency of these environmental issues and encourage consumers to become more eco-conscious (Hussain et al., 2020). Consumers will engage more in green purchase behavior when they have decent knowledge and information on how to make the market environment eco-friendly and safe. With better informative green advertising, more consumers can become aware of the environmental challenges that exist and prefer to consume more sustainably (Hussain et al., 2020).

Leonidou et al. (2011) make clear to companies that it is important to adopt a systematic, proactive, and well-planned approach to green advertising, more than just reacting to internal crisis situations, ecological disasters, or environmental public demands. A company should see green advertising as an important part of its overall environmental marketing strategy and use it as a tool to gain sustainable competitive advantages over its competitors. However, environmental advertising claims are often still rather vague and confusing, and many companies tend to exaggerate the environmental benefits of their products (Vermillion and Peart, 2010). Companies that use shallow green advertisements present a superficial, vague, and sometimes deceptive coverage of the actual environmental challenges (Leonidou et al., 2014). This can have a negative effect on perceived credibility in green advertising and lead to consumer skepticism.

Perceived credibility and consumer skepticism

The level of credibility of a message depends on many aspects of the messaging process. Both the message content and sender characteristics have an influence on the believability of this kind of communication (McGuire, 1976). It can also work the other way around. The perceived credibility of an advertising message from a certain brand or company can have a direct influence on how consumers appreciate both the advertisement itself and the brand or company that launched it. MacKenzie and Lutz (1989) define advertisement credibility as the extent to which a consumer perceives the claims that are made about the brand or company to be truthful and believable.

Economic growth, corporate profit, and consumer spending are inherent to the paradigm of capitalism that dominates much of the economically developed world. That is a reason why many consumers are exposed to daily advertising messages suggesting that a happy, meaningful, and successful life requires making a lot of money and spending it on goods and services in the market (Kasser, 2017). In the late 1980s and the 1990s, the notion of green products becomes more common to the general public and green marketing starts appearing (Sarkar, 2012). Environmental claims from companies are new in consumer advertising and many consumers have not yet developed the sort of natural skepticism about green claims that they show toward more traditional advertising claims. Many consumers are willing to help improve the environment, and by that are more receptive to green claims, whether they are true or false (Carlson et al., 1993). Consumer skepticism is healthy to a certain extent, as advertisements make claims about the environmental benefits of certain products. Therefore, consumers should have some degree of skepticism about claims in the areas where there is a potential to mislead. In this case the new market of green advertising (Mohr et al., 1998).

Although green consumers may be more open to green advertising, companies should still be careful not to mislead them by using vague or confusing messages in their advertisements. To avoid green consumers becoming skeptical, they have to reflect on the best tactics to communicate green messages (Do Paço and Reis, 2012). Companies should consider as well what environmental information about the product might be relevant for the consumer and make sure people will actually understand what is being communicated. All the information is best formulated clear and transparent so it could enable consumers to make well-thought decisions in their choice for green products (Polonsky and Rosenberger, 2001). Being informed by green advertising about the effectiveness and environmental benefits of a product, will not only improve consumers' interest and knowledge about green products, but can also positively affect the perceived truthfulness and credibility of the advertisement. Consumers who have a higher level of involvement, perceive green advertising to be more truthful and believable. Higher levels of credibility will generate positive attitudes toward the advertisement and may even result in better brand attitudes in general (Tucker et al., 2012). It is an opportunity for companies to educate consumers and provide them with the tools and knowledge that will allow them to distinguish real from false environmental claims (Do Paço and Reis, 2012).

A lack of advertising credibility can lead to deception in green advertising. A study by Carlson et al. (1993), investigating environmental claims of organizations in American magazines in 1989 and 1990, shows that most advertisements contain misleading claims, although they can not be unveiled as strong lies. When organizations make claims about themselves on environmental issues, some of these associations are not made clear enough. Segev et al. (2015) conceptually replicate this study and find the majority of the claims to be acceptable, implying a trend toward more trustworthy and reliable green advertising in these magazines. The study mainly focuses on consumer skepticism in green advertising, because the growing demand for green products is reflected in an increase of green advertising. Similar to the results of Carlson et al. (1993), most of the misleading claims are product and image oriented, with vagueness of the message as the dominant type of deception (Segev et al., 2015).

Greenwashing and the issue of honesty

A concept we must mention because it appears frequently in academic literature, is greenwashing. The concept of greenwashing is launched in 1986 by the American environmentalist Jay Westervelt (De Freitas Netto et al., 2020). It can occur in various ways and has synonyms such as eco-bleaching, whitewashing, eco-washing, green make-up, or green image washing (Kahle and Gurel-Atay, 2014). Greenwashing can be defined as the art of deceiving consumers about a company's sustainable practices with overly positive communication about its own sustainability performances (Terrachoice, 2010). Green and sustainable claims in advertising do not necessarily reflect what companies actually implement throughout their main activities. Some companies overestimate the positive impact of their activities on the environment and underestimate the negative impact (Leonidou et al., 2014).

According to Vos (2009), greenwashing occurs for numerous reasons, but in general it has primarily an economic motive. More and more consumers and investors attach importance to the sustainable values of the companies they support. Most attempts at greenwashing are therefore motivated by the prospect of gaining a market advantage when claiming to be an environmentally conscious company (Vos, 2009). Companies that mislead consumers with incomplete or incorrect information about their sustainability performances, engage in unethical and in some cases even illegal practices (Newell et al., 1998).

Recently more consumers are becoming aware of the possible presence of greenwashing in corporate communication. Furlow (2010) says the multitude of misleading sustainable claims can sometimes lead to suspicion among consumers and can be followed by quick accusations of greenwashing. Companies need to avoid creating the perception of greenwashing and adapt their communication strategies accordingly (Szabo and Webster, 2020). Sometimes we even see the practice of greenhushing emerge. Greenhushing, the opposite concept of greenwashing, is described as the deliberate withholding of useful information about a company's sustainable actions and practices from customers

and shareholders (Font et al., 2016). Academic literature does not provide much information on the possible motives of greenhushing, but we doubt it to be very beneficial for a company. Still, there is no clear definition of 'how good is good enough' for green products and for companies that make green claims (Donikini, 2013).

Companies with an intrinsic motivation for sustainability should learn to communicate their sincere goals and intentions more effectively. Skeptical consumers search for additional information about the product they want to buy, and companies should make this information easily available to the public. This can help assure consumers of the authenticity and fairness of these sustainable initiatives (Leonidou et al., 2011). Proper assessment and communication on the positive contributions to sustainability from the product or brand, can help eliminate consumers' distrust and confusion, and lead to positive effects for the company (Leonidou et al., 2014). We see that it is crucial for companies to build a sustainable relationship of trust with the consumers. The use of greenwashing can have a major negative impact on the reputation and perceived honesty of a company.

Theoretical findings on credibility in green advertising

Challenges in the transition from traditional to green advertising

Because environmental issues are becoming an integral part of modern society, green marketing allows companies to access new markets and gain competitive advantage (Chen, 2010). Companies that attempt to enhance their reputation by using green and environmentally friendly messages should focus more on dealing with consumers' needs and concerns instead of simply promoting their brand as green (Fowler and Close, 2012). One of these needs is to find a set of shared values with the consumer (Ottman et al., 2006), because there seems to remain a green gap between the agendas of advertisers and the consumers those advertisers hope to influence (Fowler and Close, 2012).

Complications also arise from the fact that traditional marketing fails to integrate the environmental implications of actions into the marketing process. When marketers do attempt to include green issues in their activities, they rarely do so with a sustainable long-term approach. Green marketing should become part of the general spirit of a company and be implemented in the strategic approach of its marketing and advertising (Polonsky and Rosenberger, 2001). So, if you want to gain green credibility as a company, you need to show commitment over a longer period of time to convince people you are not just there for economic profit.

Providing a clear formulation on your green claim and giving enough detailed information to support it, can even highlight the urgency of these environmental issues and encourage consumers to become more eco-conscious (Hussain et al., 2020). Companies that manage to win the trust of consumers are likely to persuade consumers of the benefits of their green products more effectively (Gleim et al., 2013). So, it is important for them to try to understand how consumers will respond to a wide range of environmental advertising tactics (Tucker et al., 2012).

What can help to improve the credibility of green advertisement claims, is to clearly demonstrate the eco-friendly nature of the products and production processes by presenting clear facts (Leonidou et al., 2014). Davis (1993) emphasizes the need to give objective, concrete, and factual claims on the characteristics and benefits of products in green advertising. If an environmental claim is vague, it will much likelier be perceived by the consumers as manipulative, deceptive, and unethical. This is confirmed by Carlson et al. in 1993 in their content analysis of green advertisements in American magazines, where in most cases environmental claims are misleading and deceptive, rather than acceptable (Leonidou et al., 2014).

These study results also highlight the need for companies to test green advertisements and avoid the use of inaccurate, incomplete, or misleading claims, that act in an unethical and even illegal way (Newell et al., 1998). Because if consumers think companies are not honest, there is little chance they will believe any of their green claims in the future. So, it is crucial for marketing and advertising strategies to avoid greenwashing. It is however good for consumers to have a certain degree of skepticism about claims in the areas where there is a potential to mislead, in this case green advertising (Mohr et al., 1998). This can be an opportunity for companies to educate consumers and provide them with the tools and knowledge that will allow them to distinguish real from false environmental claims (Do Paço and Reis, 2012). Just as "business as usual" can't make the world sustainable, "communicating as usual" will not make communication on sustainability credible.

All the aspects above explain why it is difficult today for consumers to perceive green advertising as credible and honest. Persuasive Advertising techniques are based on convincing consumers to buy a product or service by making the product somehow look better than it really is. In green advertising however, the many complex and challenging aspects of environmental issues need more cautious handling (Leonidou et al., 2011). Most of all, it is essential for companies to actually deliver what is promised in the advertising message (Leonidou et al., 2014). We also highlighted Legitimacy Theory, where green advertisements can be seen as messages from companies to achieve legitimacy for their actions in the eyes of consumers and society (Leonidou et al., 2014). Still, many consumers do not fully trust such advertisements. This is because some companies, that could not prevent or even may be partly responsible for the current state of environmental degradation and global warming, now advertise for products that can help save the planet if you buy them (Fowler and Close, 2012).

Six elements that can drive credibility in green advertising

MacKenzie and Lutz (1989) define advertisement credibility as the extent to which a consumer perceives the claims that are made about a company or product in an advertisement to be truthful and believable. The goal of our academic research is to examine to what extent sustainable advertising messages are perceived as credible by the Belgian consumer. We investigate how credibility arises in advertising messages and what the impact of credible green advertising can be. Before developing and testing a significant data

model for further research, we made a literature study with the intention to uncover possible determinants of credibility within sustainable and green advertising.

This literature study uncovered six elements that can drive credibility in green advertising. To summarize: sustainable communication must be honest, be presented in a clear and detailed way, show commitment and understanding of the urgency, and demonstrate that what the company does has value for everyone.

1. **Honesty:** honesty is the most important factor that determines whether a sustainable advertising message is perceived as credible. It is related to both the content and the sender of the message. Accusations of greenwashing can be fatal for the reputation of a company and its advertising credibility.

2. **Clearness:** the clarity of an advertising message has a major impact on its credibility. A sustainable claim should be clear and not be formulated vaguely. The promises that are made should be as concrete and tangible as possible.

3. **Details:** an element associated with clearness. If a sustainable claim is well founded, the producer of the claim must be able to support it with additional information that is publicly accessible and easily available to those who wish to consult it. The more details and factual sources that are added to the sustainable claim, the more credible it will be perceived by the receiver of the message.

4. **Commitment:** many consumers expect positive impact from the companies they support. Companies that show commitment in the transition to sustainability therefore immediately enjoy greater credibility. These companies must be able to demonstrate that they are serious and focused on the long-term. This can be confirmed by efforts in the recent past or by coming forward with specific plans for the future.

5. **Urgency:** the climate crisis is urgent and requires immediate efforts. Achieving a set of longer-term goals is only possible by taking action today. Therefore, it is important for companies to emphasize the awareness of the urgency of these sustainable initiatives in their communication strategies.

6. **Shared value:** the average consumer has a certain suspicion about the secret agenda of businesses. There is a fear that companies want to use sustainability mainly for financial purposes. It is advisable to communicate clearly about the shared sustainable values and end goals that are envisaged.

The literature review also confirms that this conceptual approach, is able to bring new insights when properly tested in a quantitative approach with dedicated statistical modeling. Research by [Huber et al. \(2014\)](#) shows that trustworthiness of the brand as communicator influences the credibility attribution. The credibility of the sustainable ad impacts the attitude toward the product and the purchase intention. Using structural equation modeling, they obtained a very clear and well fitting model. Our challenge is to look at the differential impact of the 6 potential drivers of credibility and beyond on motivation and brand consideration with the same statistical engine.

Methodology

In our study of the existing academic literature on green advertising, we distinguished six elements that can drive credibility in green advertising. In order to validate these elements of

credibility with significant evidence and uncover possible effects of credibility on sustainable motivation and brand consideration, we ran a survey in which our respondents saw 5 randomly selected commercials that used sustainability as a theme in the broad sense. These commercials were selected from a collection of 95 commercials that had been broadcasted in Belgium in the last 24 months before August 2021. In order to be selected, at least one of the 17 SDG's defined by UN was present in the commercial.

Six hundred respondents participated. They were recruited by field agency Bilendi and are representative for Belgian consumers aged 19 to 90 years old. The survey that we ran contained, among other questions, the following items measured as 5-point Likert items:

- Do you find this spot credible? "Credibility."
- Does this spot motivate you to increase your positive impact? "Motivation."
- Would you consider buying this brand after seeing this spot? "Consideration."
- Is this spot clear to you? "Clear."
- Do you think this brand is serious? "Commitment."
- Is this brand doing things that matter to you? "Shared value."
- Do you think this spot is fair? "Honesty."
- Does this spot evoke a sense of urgency in you? "Urgency."

Next to the survey, the 95 commercials were tagged by two marketeers from Bubka agency in Antwerp on 70 characteristics related to content, style, and creative assets. Amongst these, the binary item "Supported by details" was used in our analysis. For the analysis, we use Structural Equation Modeling because the model we derive from literature contains variables that are both dependent and independent at the same time ([Hair et al., 1998](#), p. 578). Structural equation modeling examines a series of dependence relationships simultaneously. It is particularly useful when one dependent variable becomes an independent variable in subsequent dependence relationships. SEM models have successfully been applied earlier in the context of green advertising: in the work by [Kumar and Tripathi \(2019\)](#) they demonstrate the added value of a SEM approach examining the role of celebrity's credibility on attitude toward green advertisements.

Using IBM SPSS AMOS version 26, we estimated the path model shown in [Figure 1](#) in a number of rounds using modification indices and significance of regression weights as criteria for the relevance of the paths:

Results and interpretation

Statistical results

First of all, we aimed at measuring the credibility ratings of the selected green commercials. Our study results make clear that only 9.7% of the 3,000 evaluations are perceived as truly credible (5 on the 5 point Likert scale). This credibility deficit clearly shows that "the language" used in these commercials is not in line with the green goals.

The recursive model shows excellent fit:

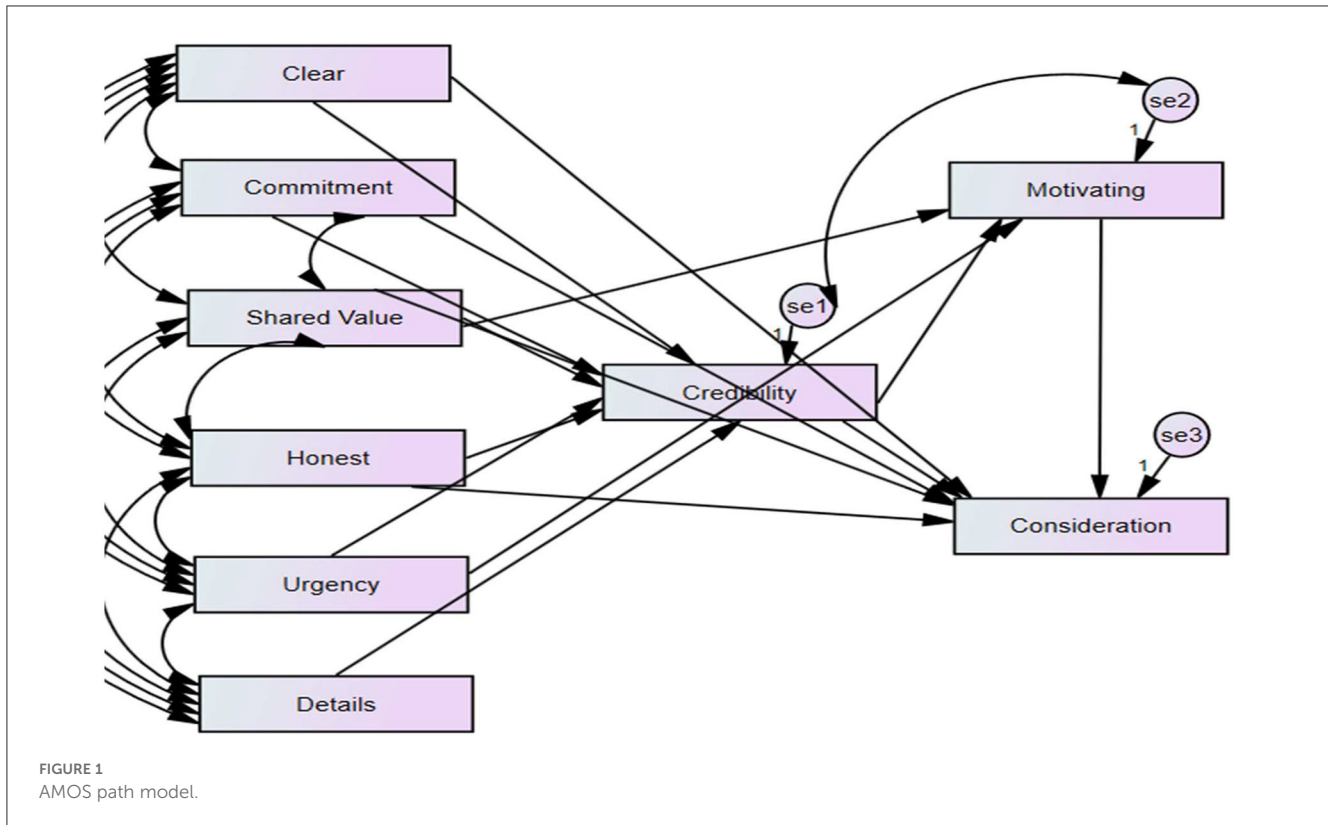


TABLE 1 R² information.

| Variable | R ² |
|---------------|----------------|
| Credibility | 0.718 |
| Motivation | 0.593 |
| Consideration | 0.284 |

Chi² = 5,309; df = 5 and *p* = 0.379 meaning that we can accept the zero hypothesis: the model fits the data. Furthermore, RMR = 0.003; GFI = 1,000; AGFI = 0.996 and RMSEA = 0.005. The baseline comparisons also show very good fit: NFI/Delta 1 = 1,000; RFI/rho 1= 0.997; IFI/Delta 2 = 1,000; TLI/rho 2 = 1,000 and CFI = 1,000.

Table 1 shows the substantial R² for all 3 dependent variables.

The regression weights are shown in Table 2.

Table 3 contains the estimated correlations.

Interpretation of the results

In our literature study we emphasized the necessity for credible green advertising without greenwashing. In a context where the results of our survey show that just 9.7% of the tested commercials are perceived as credible, it is relevant to understand the genesis and the effects of a credible sustainable commercial. Although Do Paço and Reis (2012) highlight the importance of well-thought-out green communication in order to avoid the creation of skepticism among green consumers, <10% of the scores show us credible

TABLE 2 Standardized regression weights and their significance levels.

| Path | Standardized Estimate | <i>p</i> -value |
|------------------------------|-----------------------|-----------------|
| Clear → Credibility | 0.113 | 0.000 |
| Commitment → Credibility | 0.261 | 0.000 |
| Shared value → Credibility | 0.087 | 0.000 |
| Honesty → Credibility | 0.428 | 0.000 |
| Urgency → Credibility | 0.117 | 0.000 |
| Details → Credibility | 0.019 | 0.046 |
| Credibility → Motivation | 0.418 | 0.000 |
| Urgency → Motivation | 0.303 | 0.000 |
| Shared value → Motivation | 0.224 | 0.000 |
| Motivation → Consideration | 0.130 | 0.000 |
| Honesty → Consideration | 0.064 | 0.024 |
| Shared value → Consideration | 0.157 | 0.000 |
| Commitment → Consideration | 0.109 | 0.000 |
| Credibility → Consideration | 0.123 | 0.000 |
| Clear → Consideration | 0.057 | 0.002 |

green commercials. Moreover, we measure that 52.6% of the tested commercials contain some form of greenwashing.

Of the six elements, honesty defines credibility in green advertising the best. It is determined by both the sender and the

TABLE 3 Correlations and their significance levels.

| Correlation | Value | p-value |
|---------------------------|--------|---------|
| Clear ↔ Commitment | 0.459 | 0.000 |
| Clear ↔ Shared value | 0.447 | 0.000 |
| Clear ↔ Honesty | 0.453 | 0.000 |
| Clear ↔ Urgency | 0.341 | 0.000 |
| Clear ↔ Details | 0.087 | 0.000 |
| Commitment ↔ Shared value | 0.623 | 0.000 |
| Commitment ↔ Honesty | 0.760 | 0.000 |
| Commitment ↔ Urgency | 0.507 | 0.000 |
| Commitment ↔ Details | 0.063 | 0.000 |
| Shared value ↔ Honesty | 0.620 | 0.000 |
| Shared value ↔ Urgency | 0.548 | 0.000 |
| Shared value ↔ Details | 0.089 | 0.000 |
| Honesty ↔ Urgency | 0.532 | 0.000 |
| Honesty ↔ Details | 0.069 | 0.000 |
| Urgency ↔ Details | 0.102 | 0.000 |
| se1 ↔ se2 | -0.211 | 0.000 |

content of the message, as earlier stipulated by McGuire (1976). The element of honesty is highly correlated with the elements of commitment ($r = 0.760$), shared value ($r = 0.620$), urgency ($r = 0.532$) and clearness of the message ($r = 0.453$). Honesty has a significant positive impact on credibility in green advertising. In our survey, the standardized regression coefficient (or standardized β) from honesty toward credibility equals 0.428. From honesty toward brand consideration, the standardized β is 0.064. It seems that the effect of honesty runs through credibility toward motivation and consideration. This finding is in line with the results of Sun et al. (2020) where they advise stakeholders to conduct “truthful” green advertising based upon their research findings.

When it comes to the substance aspect of honesty, the principle is quite simple: steer clear of greenwashing. Companies need to avoid creating the perception of greenwashing and adapt their communication strategies (Szabo and Webster, 2020). Because the element of honesty has the greatest impact on credibility, being honest in green advertising is the first and most important thing to do. Even more, it is essential for companies to actually deliver what is promised in the advertising message (Leonidou et al., 2014).

Most consumers demand positive change, so if a brand is committed, it must show it. Companies that show genuine commitment seem to be more credible. If not, they will be less likely to maintain a decent strategic approach to green marketing and find it hard to keep their consumers' confidence over time (Polonsky and Rosenberger, 2001). The same could apply to companies that want to emphasize that they have been doing sustainable business for a longer period of time.

Commitment or the presence of “proof points” is the second most important element that drives credibility in green advertising, with a standardized β of 0.261 in our survey. Commitment is

highly correlated with honesty ($r = 0.760$), shared value ($r = 0.623$), urgency ($r = 0.507$), and clearness ($r = 0.459$). The standardized β from commitment toward brand consideration is 0.109. Consumers know the sustainability crisis demands action. For companies it can be important for their credibility to let the people know that they understand this urgency and are focusing on concrete results. If a company shows that it understands the urgency and is taking action here and now, the motivation for people to live more sustainably increases significantly.

The standardized β from urgency toward motivation to live more sustainably is 0.303 and from urgency toward credibility the standardized β is 0.117. Urgency is highly correlated with shared value ($r = 0.548$), honesty ($r = 0.532$), commitment ($r = 0.507$), and clearness ($r = 0.341$). As we have seen in our literature study, there is a certain amount of cynicism about the corporate agenda. There is a suspicion that the sustainability transition will be misused for commercial purposes. A key element could be to find a set of shared values with the consumer (Ottman et al., 2006), because there seems to remain a gap between the agendas of advertisers and the consumers those advertisers hope to influence (Fowler and Close, 2012).

For the element of shared value, the standardized β is 0.224 toward motivation to live more sustainably, 0.157 toward brand consideration, and 0.087 toward credibility in green advertising. Shared value is highly correlated with commitment ($r = 0.623$), honesty ($r = 0.620$), urgency ($r = 0.548$), and clearness ($r = 0.447$). So, companies that attempt to enhance their reputation by using green advertising, should try to focus more on dealing with the consumers' needs and concerns, instead of simply promoting their brand as being green (Fowler and Close, 2012). If they could take action in line with the consumers' expectations, it would change the perception of these companies for the better.

In the study of Davis (1993), companies are advised to give objective, concrete, and factual claims on the characteristics and benefits of products in green advertisements. Our results show that clearness of the message is highly correlated with commitment ($r = 0.459$), honesty ($r = 0.453$), shared value ($r = 0.447$), and urgency ($r = 0.341$). The standardized β from message clearness to credibility in green advertising is 0.113 and toward brand consideration 0.057.

Polonsky and Rosenberger (2001) debated on what environmental information could be communicated and how it should be presented to the public. For Leonidou et al. (2014) it is clear that companies should provide specific, detailed, and accurate information to support green claims in their commercials. The presence of details might be the least important factor of our six elements that drive credibility in green advertising, but it still has a significant standardized β of 0.019 toward credibility and is correlated with urgency ($r = 0.102$), shared value ($r = 0.089$), clearness ($r = 0.087$), honesty ($r = 0.069$), and commitment ($r = 0.063$). We believe that both presence of details and proof points (commitment) are the concrete content elements that make a difference in the eyes of the consumer. This finding is in line with the work by Kim et al. (2022) where they report that using messages with specific information about green initiatives has an advantage as it impacts credibility. Jäger and Weber (2020) also found that concrete messages are perceived more credible than abstractly framed messages in the context of green marketing. This is also

one of the main findings by [Ganz and Grimes \(2018\)](#): their results indicate that being specific increases the perceived credibility of green claims across a range of products.

Our finding that credibility is effecting motivation to increase one's positive impact and impacts sustainable brand consideration is a results with both theoretical and practical implications: it is in line with many papers that mention credibility as a key variable in advertising effectiveness and it forces practitioners to think about the credibility of their messages.

Conclusions

We started our study of the academic literature on credibility in green advertising with an explanation of the concepts of sustainable development and green products, as they are key elements in the transition toward a more sustainable society. There seems to be an urgency to find a set of shared values between companies and their consumers. Therefore, we highlighted Schwartz' Theory of Basic Human Values and the SHIFT model toward ecologically sustainable behavior.

We noticed that companies recognize the competitive advantages and opportunities that can be gained from eco-sustainability and green marketing, but it does not always benefit the reputations of companies in the long-term, if it is not grounded in genuine efforts to become green. Sustainable marketing should become part of the general spirit of companies, and these companies need to show commitment over a longer period of time to convince consumers they are not just there for economic profit.

Marketing and advertising helped to create some unsustainable habits we now need to change, but can also be part of the solution, making new alternatives desirable. We unraveled the evolution of green advertising from the 1970s until today and described the difficulties in integrating green advertising in classic advertising models such as Legitimacy Theory and Persuasive Advertising. Green advertising has specific characteristics and challenges that require a different approach.

Green advertising almost always contains green claims, where references are made to the environmental or ecological aspects of the lifecycle of a product. Different studies point at the need to give objective, concrete and factual claims on the characteristics and potential benefits of a product in green advertising. Providing a clear formulation of the green claim and giving enough details and factual information to support it, can also highlight the urgency of these environmental issues and encourage consumers to become more eco-conscious.

If an environmental claim is vague, it will much likelier be perceived by the consumers as manipulative, deceptive and unethical. And when consumers think a company is not honest, there is little chance they will believe their green claims in the future. So, it is crucial for green advertising strategies to avoid the use of greenwashing. That is described as the art of deceiving consumers about a company's sustainable practices with overly positive communication about its own sustainability performances. We covered the characteristics of greenwashing by showing the model of The Six Sins of Greenwashing and found out it is mainly driven by economic motives.

It can be helpful for consumers to have a certain degree of skepticism about green claims in advertising. This can even be seen as an opportunity for companies to educate consumers and provide them with the tools and knowledge that will allow them to distinguish real from false environmental claims. Companies with an intrinsic motivation for sustainability should learn to communicate their sincere intentions more effectively and most of all, it is essential to actually deliver what is promised in the advertising message.

Despite the growing existence of green marketing, many marketers still do not seem to have enough tools to analyze the success of green advertising in relation to the attitudes, intentions, and behaviors of their consumers. Because both the message content and sender characteristics have an influence on the credibility of advertising, we clearly see how all the aspects earlier mentioned explain why it is difficult today for consumers to perceive green advertising as credible. Just as "business as usual" can't make the world sustainable, "communicating as usual" will not make green advertising credible.

The goal of our academic research was to examine to what extent sustainable advertising messages are perceived as credible by the Belgian consumer. We wanted to investigate how credibility arises in sustainable commercials and what the impact of credible green advertising could be. We started this literature study with the intention to uncover possible determinants of credibility, and were able to distinguish six main elements that drive credibility in green advertising. We found that sustainable communication must be honest, be presented in a clear and detailed way, show commitment and understanding of the urgency, and demonstrate that what the company does has shared value.

This empirical research can also be seen as an academic attempt to build a bridge between positivist quantitative research and the professional advertising world. When new business models are defined in a circular economy, it will be important to understand the role of the customer and improve the way advertisers and marketers take into account the worries and needs of those consumers. This means improve the managerial practices for value creation in the transition toward sustainability ([Centobelli et al., 2020](#)).

Implications for practitioners

There is an important role for marketers and communication specialists to improve the way we talk about sustainable products. After all, our study results show that many consumers do not believe advertising that communicates those sustainable products or initiatives.

An adapted advertising model is needed when it comes to sustainability communication. Or in other words, marketers need to create differently for sustainability. They have to make sure their sustainability communication effectively helps their brand and business grow, rather than putting it in jeopardy. Because if they keep creating green advertising by the Persuasive Advertising techniques as we have seen earlier, they may risk serious backlash and lose consumer trust. So, advertising about sustainable products must be credible and trustworthy.

The advertising industry needs to reinvent itself. As said earlier, “business as usual” can’t make the world sustainable and “communicating as usual” will not make green advertising credible either. Our results show there are six drivers of credibility. Communication must be truthful and detailed. It should convey proofpoints and be anything but vague. It needs to show commitment and urgency. It has to make people feel you are deadly serious about the problem. And it has to create shared value. If companies take action in line with the consumers’ expectations, it will change the perception of the companies for the better.

Only when these six elements of credibility are applied, consumers will believe what marketers tell them and be able to grow responsibly as a brand or company. Because brands have the ability to rebuild the world. That way, the advertising industry can become part of the solution and not part of the problem. In recent months, the learnings from this research have been used in order to create new advertising through co-creation where strategy people explain to creative people what the concepts that determine credibility mean. This co-creation resulted in concept ads that were tested for credibility and the other 7 variables described above using small $N = 100$ samples of respondents. Each respondent is invited to rate 5 concept ads offered in a random way, allowing repeated measures statistical analyses. This co-creation practice turns out to improve the effectiveness of green advertising. This research also allows the construction of an app that can be used in the context of pretesting ads: using the non-standardized regression estimates in a spreadsheet, one can forecast the brand consideration by using the mean scores obtained in the pretest of ads. We thereby simulate the flows in the SEM model on real ads. Due to the high levels of explained variance, the resulting scores for consideration vary all across the range of variable. This allows proper evaluation of sustainable ads.

Limitations and suggestions for future research

In this study, we used single Likert items to be efficient. This creates a situation where, unlike using sum scales, we do not know the reliability of our variables. Using sum scales implies a reduction in the number of green commercials to be viewed, and due to the many variables, perhaps a more rational response to the stimuli, which is also not ideal.

The ultimate dependent variable in this study is brand consideration. A study where the real effectiveness based on market share evolution is measured, could have added value. Of course we should then also be able to check for media budget, which is not at all obvious.

We see that “Details,” one of our drivers, comes from the tags list. It would be interesting to take a look at this list of 70 tags and analyze which specific content, creative, and format related tags have a positive or negative impact on the variables in the model.

This study contains 95 green commercials that were shown in Belgium. An international project could provide us with better insights in the context of a generalization of the study results. From the analysis of the 95 video commercials, we understand the genesis and role of credibility. In a next phase we intent to look at audio commercials, followed by social media ads. By the end of the year 2023, conclusions on these three media should be available together with guidelines to improve the effectiveness of green advertising. In a further step, it seems interesting to test whether distinct target groups react differently to the green content. From own research we are able to identify three population subgroups in relationship to sustainable consumer behavior: the Movers who buy and act sustainable in many areas. We also identified Movable who start to behave responsible in a few areas and finally the Resisters who only participate in a sustainable way because there is no other option due to regulation (no plastic shopping bag, obligation to recycle,...) (Vermeulen and Verleye, 2020). The information from this research may further show nuances when applied on those groups.

Data availability statement

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation. The data is available in SPSS format.

Ethics statement

Ethical review and approval was not required for the study on human participants in accordance with the local legislation and institutional requirements. The patients/participants provided their written informed consent to participate in this study.

Author contributions

GV wrote the SEM analysis part and contributed to the results + implication for practitioners sections. AD contributed to the literature section and the results section. WV contributed to the project set up and the measurement (questionnaire) part. IS did the work on the ads tags sheet (content analysis data) and contributed to the implication for practitioners section. All authors contributed to the manuscript revision, read, and approved the submitted version.

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Conflict of interest

Authors WV and IS were employed by company Bubka Advertising Agency.

The remaining authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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