



Erasmus University Rotterdam

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Buy less / Buy green

the differences in impact of a decreased consumption  
statement on advertisement credibility and brand attitude

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MASTER THESIS by W.B. GRINWIS

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## Abstract

In recent advertising campaigns, some brands call for decreased consumption overall (e.g. Patagonia's "Don't Buy This Jacket" and KLM's "Fly Responsibly"). This study explores and compares the perceived credibility of consumers of two different advertisement statements. The first statement (*buy less*) is a form of demarketing that refers to a strategy whereby a brand encourages customers to *buy less* of the product for the sake of the environment. The other statement (*buy green*) is the more conventional one that asks the customer to buy a more green product instead. In addition, this study researched the influence of the mission statement from a company on the relationship between the two statements and the advertisement credibility. This mission statement is the proxy for the company structure. As this study tried to identify the influence of the company structure on the relationship between the two statements and the credibility of the advertisement. All this has led to the following research question: *Does the credibility of advertisements showing "buy less" or "buy green" differ and have an impact on the brand attitude while taking a possible determinant as green added motive or green deep-seated motive, into consideration?*

The results of this study showed that marketers can use both statements regardless of the impact on perceived credibility. Neither of the statements showed a significant difference in impact on the advertisement credibility. The results showed insignificant results, advertisement credibility is not mediating the relationship between the statements and the brand attitude from customers. In addition, it is concluded that the mission statement is not moderating the relationship between advertisement statements and advertising credibility.

However, the advertisement credibility did have a significant impact on brand attitude. It is advised to think about how the demarketing statement can be integrated into the marketing campaign. The integration could help to distinguish the company/brand from their competitors, without harming the perceived advertisement credibility. Further implications for practice and future research are proposed.

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## 1. Introduction

One of the first widely accepted marketing definitions was created by the American Marketing Association (AMA) in 1948: ‘Marketing is the performance of business activities that direct the flow of goods and services from producers to consumers Ringold & Weitz, 2007, p.253’’. This definition confirmed the conception that the main task of marketing is focusing on furthering or expanding demand. However, this definition was based on buyer markets and created in periods of excess supply. But what happens if the economy comes in a free fall, what would then be the role of marketing management? The role of marketing during a bad economic situation is probably reducing until the minimal (Kotler & Levy, 1971). As a result, the traditional concept of marketing that deals only with increasing or sustaining demand was seen as too narrow and too focussed on what marketers are doing instead of what they are able to under various circumstances (Kotler & Levy, 1971). Kotler and Levy, therefore, introduced in 1971 the concept of demarketing. This could be defined as the practice of demand reduction which used the same four Ps (product, price, place and promotion) but in a reverse way (Kotler, 2011). In 1973 demarketing was mostly discussed as a reactive strategy in regard to the energy crisis and contemporary macroeconomic conditions such as inflation (Armstrong Soule & Reich, 2015). In these occasions, the demand exceeds the supply and will, therefore, harm customer satisfaction (Armstrong Soule & Reich, 2015).

With current issues such as environmental concerns around the globe, the new added concept ‘demarketing’ is more relevant than ever. The environmental agenda is influencing marketing theory and the practice of it (Kotler, 2011). The realization that resources are finite and pollution and water shortage will impact the lives of the future generation is informing decisions of marketing researchers and practitioners (Esty & Ivanova, 2002). These environmental concerns are causing new ways of customer buying behaviour and the need for a change in the execution of marketing. Consumers aren’t basing their decisions on functional (marketing 1.0) and emotional (marketing 2.0) criteria anymore (Kotler, 2011). Questions about whether the company is meeting his social responsibilities, and how sustainable the company is acting, are becoming more and more important in marketing 3.0. Companies need to take care of the newly added marketing importance, Corporate Social Responsibility (CSR) and demarketing are both strategies that can be applied to align with marketing 3.0. The definition of CSR by (European Commission, 2011, p.6) is as follows: "the responsibility of enterprises for their

impacts on society, with the aim of maximizing the creation of shared value for all stakeholders and society at large". Engaging in a CSR strategy has been beneficial for direct financial benefits and even beyond, such as customer satisfaction (Galbreath, 2010; Waddock & Graves, 1997). But on the other hand, directly benefiting from engaging in CSR and attempts to 'go green' can lead to consumer scepticism (Alves, 2009). The other strategy of demarketing is a fairly under-researched topic as it is for a profit-driven company counter-intuitive decision to decrease the demand in order to combat the environmental concerns. Also, the same kind of scepticism from CSR could apply to the demarketing strategy. Kotler and Levy (1971, p.75) described *ostensible demarketing* as the derivative of demarketing "which involves the appearance of trying to discourage demand as a device for actually increasing it".

Firms are increasingly turning their advertising into more environmentally friendly focused campaigns (Pomering & Johnson, 2009). The CSR budget of corporate communication departments in large companies has increased and has become the third-largest budget item (Hutton, Goodman, Alexander, & Genest, 2001). These two findings suggest that there are numerous benefits to gain. Nevertheless, it could be argued that if firms are focussing too intensely on CSR activities, the consumer may be thinking they are trying to hide something and whether these investments are really paying off (T. J. Brown & Dacin, 1997). In addition, combinations of firm visibility, resource access and scale of operations results in different motivations for firms executing a CSR strategy. The participation in a CSR strategy is U-shaped which means that very small companies and very large companies are more likely to execute CSR strategies, however, the reasons for doing so are very different. Whereas very small companies see practising CSR as a basis for differentiation and access to resources. Very large companies are more likely to execute in CSR because non-participation is likely to be destructive, companies in the middle are the least likely to execute a CSR strategy. Middle-sized companies are least likely because they were given lesser visibility and higher pressure resistance due to resource access and scale of operations (Udayasankar, 2008). These different motives for practising CSR combined with the company size makes it interesting to research if it is perceived differently by the consumers. Last, there is a difference in the organisation structure of a corporate and a non-corporate. An important aspect of the corporations is limited liability. Corporations can have a single or if it is a publicly-traded corporation even thousand shareholders. The group of shareholders have ownership of the corporation. The goal of the

corporation can be for-profit or not, as with charities. However, the vast majority of corporations aim to provide a return and maximize shareholder wealth as measured by stock price (Kenton, 2019; Stout, 2012). Therefore, every participation in CSR could raise the consumer scepticism of yet another attempt for increasing shareholder wealth. For this reason, it is interesting to research whether applying both strategies to corporates and non-corporates raise the same or different levels in consumer scepticism.

Demarketing is not a very common strategy. However, there are multiple examples in retail that show the execution of demarketing. A clear example is clothing retailer Patagonia, whose campaigns have included statements where they ask the consumers to *buy less* or buy not at all if you do not need it. Far more recent is Dutch aviation company KLM's 'fly more responsibly' campaign about the joint responsibility of consumers and companies to minimize the impact of flying on the environment. The viewers of the campaign were asked three questions: "Do you always have to meet face to face?", "Could you take the train instead?" and "Could you contribute by compensating your CO2 emissions or packing light?", which were all meant to question whether the consumers take their responsibility and are aware of their impact. But KLM may do so to boost its brand image to create more demand rather than less. This phenomenon forms a prime example of demarketing, to emit social responsibility and sustainability. How credible are demarketing campaigns? And what kind of influence has this type of demarketing campaigns on the image of a company?

## **1.1 Research question**

This study will contribute to the existing literature in the field of demarketing. Concerns regarding the environment are current issues. Companies are attempting to combat these concerns without damaging their business. A demarketing strategy can be a fierce attempt to combat environmental concerns but there are gaps in the understanding of how this strategy is perceived by the consumer. The purpose of this research is to increase the understanding of how credible advertisements, that ask for consumption reduction are being perceived by the consumers. Especially in comparison to advertisements that ask the consumer to buy green products. Furthermore, to understand the credibility of these specific advertisements, it is of great importance to see what the effect is of these advertisements on the company image while taking a determinant as green added motive and green deep-seated motive into consideration.

A green deep-seated or green added motives are descriptions of mission statements from two different companies. It is assumed in this study that the mission statements cover the purposes of their existence. The green deep-seated mission statement includes the word green. This mission statement is, because of the word green, a proxy for a company structure which is started with a green purpose. On the other side, the green added mission statement does not contain the word green. Therefore, it is assumed that this mission statement is a proxy of a company which was not intended to be green in the essence and does not have a green purpose in the basis. The goal of this proxy is to identify the influence of the relationship between the *buy less* / *buy green* statements and the credibility of the advertisement.

So, this study focuses on the credibility of advertisements that include slogans as “*buy green*” or “*buy less*”. In addition, the moderating effect of the advertisement executed by green added motive or green deep-seated motive will be examined to assess if this impacts the credibility of the advertisement. Also, will be investigated whether the credibility of an advertisement that contains *buy less* or *buy green* can influence the image of the company. In order to address the research gap that is identified, the following research question is answered:

*Does the credibility of advertisements showing “buy less” or “buy green” differ and have an impact on the brand attitude while taking a possible determinant as green added motive or green deep-seated motive, into consideration?*

In order to give a comprehensive answer to this question, the following sub-questions are posed:

- *What is demarketing and what are the different strategies in demarketing?*
- *How could the type of company have an impact on the perceived credibility of an advertisement?*
- *How and in what way can CSR influence brand attitude?*
- *What is the effect of advertising credibility on brand attitude?*

A clear overview of the questions can be found in the conceptual model in chapter 3.2 figure 1. In this model, the relationship between X (*buy less* / *buy green*) and Y (credibility / brand attitude) and the moderator (green added motive / green deep-seated motive) are shown schematically. The hypotheses from this model will be explained in the next chapter.



## 1.2 Academic relevance

To date, there have been some studies conducted on the role of demarketing, but not many of the founded studies investigated what the effect is of demarketing on consumers. This occurred for the reason that it is counterintuitive from a marketing or demand-creation angle. Nonetheless, it is more effective from an environmental angle to simply cut down consumption (Reich & Armstrong Soule, 2016). The existing demarketing literature appears in a number of different contexts. The major part of founded studies is executed by governments and institutions that used this strategy to discourage harmful environmental behaviour (Armstrong & Kern, 2011; Beeton & Benfield, 2002; Medway, Warnaby, & Dharni, 2011) or focus on discouraging the demand for healthcare such as smoking and drinking abuse (Barry & Goodson, 2010; Chauhan & Setia, 2016; Moore, 2005; Shiu, Hassan, & Walsh, 2009; Wall, 2005). Armstrong Soul and Reich are one of the few researchers that conducted research on the effect of the demarketing strategies (Armstrong Soule & Reich, 2015; Reich & Armstrong Soule, 2016). In this study, Armstrong Soul and Reich researched the effects of advertising statements that encourage reduced consumption, for example, *buy less*. Furthermore, they researched the more traditional statements that consist of the use of green materials and environmental friendliness. The main findings of this study are positive and indicate that green demarketing is a good alternative and can be maintained profitable. Moreover, green demarketing is slightly preferred when the brand is promoted without the product. On the other hand, when the advertisement consists of a particular product the traditional green appeal is preferred. Though this study partly overlaps with the one previously mentioned, it adds the variables corporate and non-corporate variables. These two variables are added because they could potentially influence the effect of the credibility of the advertisement. Next to that, this study tests the impact of the advertisements on the image of the company. Is it plausible that the execution of the advertisements that consist of *buy less*, damages the credibility and image of the firm? As it could potentially be that the consumers become more sceptical about the companies' objectives and integrity in their execution. Additionally, other studies investigated selective demarketing strategies, to test if you could protect your brand image by discouraging certain groups of customers (Farquhar & Robson, 2017; Gerstner, Hess, & Chu, 1993; Ramirez, Tajdini, & David, 2017). This study focuses on the gap in the literature, how reduced demand statements are perceived by customers. Hypothesizing and testing how different advertisement

statements are being perceived and if company size affects the credibility helps to address this gap.

### **1.3 Managerial relevance**

This study entails research into the credibility of advertisements where the consumer is asked to buy less in the combat of environmental concerns. This form of advertisements could be a potential way of ostensible demarketing. This thesis contributes to the literature by theoretically describing what the added value of demarketing could be. The study test empirically how customers perceive the credibility of advertisements showing *buy less* and advertisements showing *buy green* and if it affects brand attitude differently.

With the rise of environmental concerns, this topic could be highly relevant. Currently, society is struggling with issues concerning the well-being of the future generations. Sustainability is becoming a societal issue that not only politicians have to deal with. Instead, the environmental debate is entering the business spheres where current business leaders cannot avoid the topic any longer (Sodhi, 2011). This study offers a new perspective for (marketing) managers, inventory management, purchase departments or companies that have not yet made use of demarketing in this way but are considering this for the future. The insights from this study will help managers to better understand the effect of advertisements that contain unusual statements. Thus, marketers can decide whether or not to use demarketing advertising and determine whether it suits. When the companies have a better understanding of the perceived credibility of the advertisements, it could help in the execution of the strategy and potentially could have an extra contribution to the results of the company. Additionally, this strategy is a different way to combat environmental concerns.

## **2. Literature review**

In this literature review, several research streams are being discussed. First, there will be a broad research outline on what exactly is demarketing. In this outline, also different forms of demarketing, for example, ostensible- and selective demarketing are researched. A more detailed look will be given too ostensible demarketing and the reasons behind the increase of demand while marketing is reduced. Following that there will be a section about CSR strategies

of companies. Specifically, there will be an in-depth analysis of the motives behind CSR and why companies are increasingly focussing on CSR. CSR is a relevant research stream because the ostensible demarketing shares an likeness to CSR strategy. But questionable is whether both have the same intention. Next to CSR, advertising credibility is being discussed and what factors have an influence on the credibility of advertisements. This is relevant in the research to see which factors can be tweaked to test on credibility. As of last, the connection between corporate reputation and corporate credibility is being made. The reputation and credibility of a corporation can potentially have an influence on how the consumers perceive the credibility of an advertisement.

## 2.1 Demarketing

Demarketing is a concept that attempts to deal with the problem of overfull demand by discouraging the use of products or goods. This concept is largely used by governments, for example in the context of smoking (Chauhan & Setia, 2016; Moore, 2005; Shiu, Hassan, & Walsh, 2009). Recently, the execution of demarketing has become more widely accepted as more companies are willing to adopt this strategy to combat environmental issues. As companies are more and more willing to adopt environmentally friendly business there is an important role laying ahead for the marketers. Marketers can drive and identify the demand from customers (Sodhi, 2011). Therefore, the position of the marketers within the companies can have a strong impact on the sustainability of a company. The communication of the marketer via packaging, processing and distributing keeps the customer and the company informed about the viability of sustainability practices (Sodhi, 2011). Kotler (1973) described eight different tasks that are attached to certain levels of demand that marketers should deal with. The eight levels of demand are negative demand, no demand, latent demand, faltering demand, irregular demand, full demand, overfull demand and unwholesome demand. When overfull demand is apparent, the task of the marketer is demarketing.

In general, there are three types of demarketing. The first strategy is *general demarketing*, this strategy is focused on discouraging the overall demand. The overall demand can be discouraged because of the possibility that there is a structural over popularity and the company owner would rather stay the same size than increase it. In this case, the demand is structurally outpacing the supply of the product. *Selective demarketing* occurs when an organization does

not want to supply certain customers with their product or service, or when specific segments do not add value or are not profitable. The last strategy of demarketing is *ostensible demarketing*. Kotler and Levy (1971) described this phenomenon as follows: ‘‘Ostensible demarketing, which involves the appearance of trying to discourage demand as a device for actually increasing it’’. Next to increasing demand, it could potentially be used for increasing the consumer’s perception of product quality. Tools like decreasing offer, increasing process, limited distribution, and limited advertising will affect the perception regarding the value and quality of the product, which will be reflected by improving the products image in the mind of the customer (Jasim Alsamydai, 2015). More recently the definition of ostensible demarketing was revised by Croft as he described in Bradley and Blythe (2014). Croft proposed to stay away from the debate whether the real intention of ostensible demarketing is always to increase demand. What if it happened by accident because the marketers were not aware of the customer tendency? Because demarketing is a fairly under-researched topic this broader definition of Croft is more applicable for this research. Subsequently, it is plausible that many of the marketers nowadays do not know of the existence of the demarketing research stream. That is why it is more likely to assume that the demarketing strategy was intended to promote their CSR strategy and show the consumer the environmental dimension of the company.

In addition to this broader view, Croft proposed two varieties of strategies on ostensible demarketing. The first one is strategic ostensible demarketing. In this form of ostensible demarketing, it is the decision by an organization to reduce or restrict some aspects of marketing. Whatever the real intention could be, the net result will be that the demand for the product, service or brand is enhanced. Without speculations of an accidental outcome or a real intention behind it. The second one is the third-party demarketing. This happens when a third party from outside the company is attempting to downsize or cut off the marketing of a product, service or brand to find out whether there is an opposite effect that increases the demand (Bradley & Blythe, 2014). To be more concise, this strategy is used for example with book presentations when promoters are carefully withholding information from the media to convince the public of restricted supplies of the available book (S. Brown, 2001). The first proposed strategy, strategic ostensible demarketing from Croft is in line with the research. In this study, it is not sure what the intention behind the different advertisements is.

The potential explanation of an increase in demand by executing a general ostensible demarketing strategy is related to the study of Brehm (1966). It is considered a psychological reactance and is defined as the act when the freedom in a particular way was taken away, or there was a suggestion that the freedom was about to be withdrawn, consumers start persuading themselves that the item in question was better than they had previously thought (Brehm Review & Torrance, 1968). But for the ostensible demarketing strategy that is used in this study, there is probably a different explanation to the increase of demand. The product or service in this study is not being withdrawn from the market. In this case, the advertisement asks to *buy less* or to buy a green alternative. Therefore, in this case, an explanation of the increased demand can be related to the term “greenwashing”. Greenwashing is the act of misleading consumers regarding the environmental practices of a company (firm-level greenwashing) or the environmental benefits of a product or service (product-level greenwashing) (Delmas & Burbano, 2011). The greenwashing research stream is relevant because the question that can be asked is whether the intention is really decreasing the demand or promoting to buy the greener alternative. Instead of what the company is communicating they could think in the way of ostensible demarketing. In this case, they are communicating a pro-environmental strategy, however, their real intention is to increase the demand by communicating how green they are. It is likely that more mechanisms drive the effect of increasing demand. For example, limited distribution, decreasing offer and limited advertising will have an impact on either increasing demand or it will affect the image of the company and product quality. But for this specific study, the greenwashing effect is the most relevant.

Few studies contain research regarding the effect of the different demarketing strategies. Nevertheless, the study by Ramirez, Tajdini and David (2017) shows that effort put into a firm’s pro-environmental thought can impact the consumer’s emotional responses towards the firm. In addition, the assumption could have been made that the pro-environmental demarketing strategy is only applicable to segments that are highly environmentally sensitive. But the study of Ramirez, Tajdini and David invalidate this assumption and state that there is no need for modifications in the segmentation (2017). These two findings are relevant for the research because it shows that an environmental strategy has an impact on the reactions of consumers towards a company. This gives the firms an intention to work on it and start persuading the consumer to buy greener alternatives or buy less instead. The other finding

shows that it is not of great importance that a segment is environmentally sensitive. A demarketing strategy is applicable in every segment and no need for modifications.

Research from Reich and Armstrong Soule (2016) investigated the comparison of green demarketing and traditional green appeals, whereby the green demarketing strategy is more focussed on encouraging reduced consumption and the green appeals are focussing more on the traditional means such as environmental friendliness and use of green materials. The investigation found that under the right circumstances, green demarketing offers a feasible option that can do better and maintain profitable (Armstrong Soule & Reich, 2015; Reich & Armstrong Soule, 2016). Additionally, the study found that when advertising the brand without any product, a green demarketing is slightly preferred. In contrast, when advertising consists of a particular product the traditional green appeal is preferred. Where this study differs itself is from the contribution of the mediator variables and the test on how credible advertisements are being perceived. Moreover, it is taken into account that the credibility of an advertisement can have an impact on the brand attitude. Research wherein is tested if different advertisement statements are perceived differently by its customers and impact the credibility of the company, are rare and limited. Additionally, none of them includes moderating variables like green deep-seated motive or green added motive.

## **2.2 Corporate Social Responsibility (CSR)**

Next to research that deals with demarketing explicitly, another research stream relevant to our topic is CSR. The advertisements that include *buy green* or *buy less* are part of the CSR strategy and are ways of communicating the environmental dimension of the company. In addition, more and more people prefer to buy from companies that take their responsibilities and care, companies need to add an environmental dimension. It is difficult to achieve a generalised CSR definition because it is not just a technical exercise in what companies are doing in society. It is rather an exercise where it should be defined what companies in society are responsible for (Boulouta & Pitelis, 2014). As a result, there is no universally accepted definition of CSR. The European Commission defined it as follows: "the responsibility of enterprises for their impacts on society, with the aim of maximizing the creation of shared value for all stakeholders and society at large" (Commission, 2011). The framework to conceptualize and operationalize CSR consists of three general attitude-based dimensions which

are human responsibility, environmental responsibility and product responsibility (Anselmsson & Johansson, 2007). This results that it is nowadays a multidimensional concept that is oriented towards a wide variety of stakeholders: e.g.; customers, the community, the environment, employees and the investors (Šontaitė-Petkevičienė, 2015). In this study, the relevant attitude-based dimension is environmental responsibility. Due to the focus on advertisements that consist of statements like *buy less* or *buy green*, the relevant stakeholder groups in this study are customers and the environment.

There are different approaches regarding the CSR strategy of a company. In the 1970s, the approach by Friedman (1970), known as the *shareholder's approach*, ruled for a long time. This approach describes what the place of companies within society is and the objectives of companies should be. In this approach, the ideology was that corporations are only accountable for profit-maximizing and have aside from the contractually determined obligations no duties to serve other stakeholders. Related CSR activities that are executed are there to aim for long term business, which is the creation of long-term value for owners of the business (Quazi & O'Brien, 2000). A wider orientated approach is the *stakeholder's approach*. In this approach, the company is not only responsible for their shareholders but it is also their responsibility to have a look at the interest of the stakeholders that got affected by the companies objectives (Freeman, 1984). The CSR approach that is most broad and applies to this study is the *societal approach*. In this approach, the companies are responsible to society and are an integral part of it. They operate because of a license to operate in order to serve constructively the needs of the society (van Marrewijk, 2013). The relevant attitude-based dimension for this study is environmental responsibility. This dimension is the most in line with the societal approach and most relevant for this study. The demarketing strategy in this study consists of statements that ask to *buy less* or *buy greener* that is in line with the needs of the society. As was stated previously in the introduction, consumers are looking for companies that are meeting their social responsibilities, and how sustainable the company is operating.

Studies have found that there is an increase in the budget of CSR and corporate communication is more focussed on the environment (Hutton, Goodman, Alexander, & Genest, 2001). But there is little understanding of why companies act in a socially responsible way (Campbell, 2007). It is often assumed that one of the main reasons is because it can increase firm value

and increase profitability (Falck & Heblich, 2007; Flammer, 2015; Krüger, 2015). But there is a wide variety of literature that has investigated what other reasons behind CSR could be (Bhattacharya & Sen, 2004; Marquina Feldman & Vasquez-Parraga, 2013; Polonsky & Jevons, 2009; Sprinkle & Maines, 2010; Weber, 2008). Some studies include internal reasons that benefit the company itself, e.g. positive effect on the organization's image and reputation, increase the effect of employee motivation, retention and recruitment (Weber, 2008). Feldman and Vasquez-Parraga (2013) developed six different motives behind CSR. First, executing a CSR strategy can influence the consumer's reaction towards the company and products. Second, it can help to attract and retain consumers. Third, consumers can use it as a trade-off criterion between CSR product features and price and quality. Fourth, the consumer can link the consumer to their perspective on how responsible a company is on economic, legal, ethical, and philanthropic levels. Fifth, consumers evaluation of the fit between CSR activities from companies and consumer characteristics positively affect the perception of companies CSR activities. Sixth, consumers that receive CSR communication will increase their awareness, which will turn into a positive attitude towards buying CSR related companies. These six different motives behind CSR, are not all-important for this study. As stated earlier ostensible demarketing is a strategy to increase the demand or reputation of the company. Therefore, we focus on the motives behind CSR that can affect the reputation or demand. But besides the motives of CSR, the CSR fit is an important factor in CSR communication as it affects stakeholders' attribution of CSR (Simmons & Becker-Olsen, 2006). A CSR fit is seen as the perceived congruence between a social issue that company support with their CSR and its business they are active in (Du, Bhattacharya, & Sen, 2010). A better fit between cause and the business of the company decreases the suspicion of customers while a lower fit could increase the suspicion and therefore, lead to more egoistic attribution (Fein, 1996). This additional information on CSR is relevant in the preliminary phase of data collection. It should be taken into consideration that the product with the different advertisement statements has a good CSR fit. Otherwise, if there is no good CSR fit the respondents are on beforehand sceptical about the credibility of the advertisement. Becker-Olsen, Cudmore and Hill (2006) have found that a CSR strategy that is congruent to its business operation can have a positive association on consumer perceptions of the company's credibility.



### **2.3 Advertising credibility**

Next to research that deals with CSR explicitly, another relevant research stream is credibility. A CSR strategy that is congruent with the business operation is not enough, the way how the CSR strategy is communicated is of the same importance. The attempt to recall an advertisement during the purchase process is called brand information processing. The brand information consists of any cue that can be found on the advertisement, such as information about the brand name, attributes, benefits, usage, etc. (Macinnis, Moorman, & Jaworski, 1991). The cues that are in the advertisements are there to draw the consumer's attention. Additionally, the cues have a valuable task in determining the quality of the advertising message, which affects brand attitude (Macinnis & Jaworski, 1989). A factor in the determination of the consumer's attitude towards the brand or advertisement that will influence information processing is advertising credibility (Macinnis & Jaworski, 1989).

Mackenzie and Lutz defined advertising credibility as one of the three constructs of ad credibility, next to perceived ad claim discrepancy and advertiser credibility. The definition of ad credibility by Mackenzie and Lutz is the extent to which the consumer perceives claims made about the brand in the ad to be truthful and believable (1989). The focus of this study is on ad credibility. Ad credibility and advertising scepticism have a lot to do with how an advertisement is being perceived by its customers. It refers to the perception of customers and to what extent they perceive the message of the advertisements as believable and to what extent the consumer really trusts the source of the advertisement (MacKenzie & Lutz, 1989). Factors that can influence the credibility of an advertisement are the brand's credibility and the one who brings the message (Goldsmith, Lafferty, & Newell, 2000). Blackshaw (2008) has founded six core drivers that have an influence on credibility namely: trust, authenticity, transparency, listening, responsiveness and affirmation. In this research, only the drivers trust, authenticity and affirmation matter because these drivers can be inserted directly in the message of an advertisement. The impact of the other drivers is less in this study.

On trust, it is most likely that consumers tend to ask themselves how much brands are exaggerating or stretching the truth about a product or service. It implies how much confidence, dependability and faith there is in a brand (Blackshaw, 2008). It is likely that a product that is performing well and is meeting the claims in the advertisements are perceived as more

trustworthy. It is important to research trust because consumers tend to distrust advertising and are sceptical about the messages in advertising (Soh, Reid, & King, 2007). Hulme confirms it and found that only 8% of the respondents trust companies to always act with their best interests in mind (2012).

Similarly, authenticity is all about what is real and what is true. In advertising, it is important that the advertisements show authenticity consists of sincerity, real and is consistent (Hulme, 2012). Here arises the relationship between trust and authenticity. It is more likely that consumers trust brands that come across as real and sincere (Blackshaw, 2008). Customers want to be recognized as personal individuals and are expecting that the companies can fulfil their needs in a real and sincere way. But the consumer's experience reveals that they feel the opposite. Hulme (2012) found that 58% of respondents felt that companies are only interested in selling products and services, not necessarily the product or service that is right for the consumer.

Lastly, affirmation is a claim of the truth; as it is something that can be declared to be the truth. Nowadays, the affirmation of a product can increase rapidly due to the internet and social media. Individual consumers verify and compare the information before they buy it. People want to be accepted and value group affirmation of their beliefs and actions. Hulme (2012) found that 71% sought as much information as needed to verify the quality or other aspects. The brand becomes more credible when they are affirmed with positive comments, opinions, recommendations and reviews (Blackshaw, 2008).

## **2.4 Corporate credibility and the connection with reputation**

The previous section discusses some of the elements that a consumer derives from an advertisement; other elements such as the reputation and corporate credibility are elements that also influence the response towards an advertisement. The findings of the study from Goldsmith, Lafferty and Newell confirm that corporate credibility can play a role in influencing the reaction of consumers towards an advertisement and brand (2000). Next to that, a study by Herbig and Milewics (1993) confirms that not only corporate credibility but also reputation plays an important role in corporate success.

Reputation is a result of a company's management actions and behaviour over time. The reputation of a firm can influence the perception of the consumers' minds as they process the advertisements of the firm's product. For example, the reputation of a firm may give the consumers more confidence that the quality of the product is good and make them more willing to buy the product (Goldsmith & Lafferty and Newell, 2000). Because of this, reputation is one of the most important resources in providing a sustainable competitive advantage, it is a resource that is difficult to create or imitate (Branco & Rodrigues, 2006; Deephouse, 2000; Fombrun & Shanley, 1990). Herbig and Milewics (1993) found the following definition: reputation is the estimation of the consistency over time of an attribute of an entity. This estimation is based on the entity's willingness and ability to repeatedly perform an activity in a similar fashion. The attributes are specific parts of the entity such as price, marketing skills or quality. The establishing of a reputation goes by fulfilling marketing attributes. If a firm fails to fulfil these marketing attributes it will lose its reputation.

Corporate credibility is a critical aspect of corporate reputation (Caruana, 1997; Keller & Aaker, 1998). LaBarbera found that a firm with a bad reputation has significantly less credibility and message influence and will result in lacking trustworthiness and expertise (1982). Corporate credibility incorporates corporate expertise, or to what extent the consumers feel that a corporation has the knowledge or ability to fulfil the claims they make and whether they can be trusted to tell the truth or not (Goldsmith & Lafferty and Newell, 2000). The Credibility of a company can play an important factor in influencing the purchase intention of customers and it helps to contribute to the company's image. In case a firm wants to enhance their credibility, they could use two practical implications. First, documentation from a product claim by a well-known independent group could help increase credibility. Second, the firm lacking credibility can publicize its participation in a trade association advertising self-regulation program (LaBarbera, 1982). Furthermore, by actively executing a CSR strategy, credibility and reputation can also be increased. The study by Hur, Kim, and Woo (2014) showed that CSR has a significant positive effect on corporate brand credibility and corporate reputation. What results in that credibility arises from CSR activities and, in turn, develops into reputational capital in the long term. These results suggest that it is of great importance to communicate CSR in the right way. Therefore, the CSR strategy should be based on the development of credibility and the customer-brand relationship in the long run.

### 3. Research framework

This study aims to gain knowledge and more understanding of advertising credibility and the potential effect on company image. It is fairly unknown how different advertisement statements like *buy green* and *buy less* are perceived on credibility. Additionally, it is not known what the effect of company type could potentially be on the credibility of an advertisement. To answer the research question: *“Does the credibility of advertisements showing “buy less” or “buy green” differ and have an impact on the image of a company while taking a possible determinant as green added motive or green deep-seated motive, into consideration?”*, this chapter will formulate the hypothesis and elaborate on that. The conceptual model that will be used to answer the research question is presented at the end of this chapter. It gives a visual representation of the flow of the hypothesis.

#### 3.1 Hypotheses

##### 3.1.1 Hypothesis 1: The credibility of different advertisement statements

As discussed in paragraph 2.3 on advertising credibility, there are six core drivers that influence credibility. But only three are discussed in this study because they can be directly inserted in the message of an advertisement. The first one, authenticity, is all about what is real and what is true. It is important that the advertisement comes across as sincere and real. For instance, the majority of respondents in a survey by Hulme (2012) felt that companies are only interested in selling products instead of helping the consumer to find what is right for them. This shows that the claims in advertisements are only there because of sales. And therefore, decrease the credibility of the advertisement. Secondly, affirmation is the claim of the truth; as it is something that can be declared to be the truth. People verify and search for information before they buy it. But with an advertisement that consists of less common statement *“buy less”*, it is hard to verify if they really fulfil their claims. Next to that people will try to find information on the internet and see if there are some reviews on the product or service. In this case, there will be a relatively low number of reviews on the product and advertisement because it is a new way of advertising. So, people will not know exactly what the real intention behind the claims is. The last determinant is trust. Trust can be related to the question of how much brands are exaggerating or stretching the truth about a product or service. Consumers tend to be distrustful about the claims in the advertisements and are sceptical about the messages (Soh, Reid, & King, 2007). Scepticism among customers will increase even more when the claim

is rare and not very common and contradicts the usual way of thinking for example with the *buy less* statement. On the other end, a more common statement is the *buy green* statement. For customers, this statement is more believable because they are more familiar with it and it is more likely that there is documentation from a product claim by a well-known independent group that could help increase credibility (LaBarbera, 1982). The three drivers highlight what is important in an advertisement. It is the objective to find out which of the statements scores the lowest on credibility. Another potential reasoning behind the decrease in advertising credibility is the CSR fit. If there is no good CSR fit, the respondents will be sceptical about the advertising credibility beforehand. It is therefore important that the CSR strategy is congruent to its business operations. Thus, when a company is communicating to *buy less* of its service to not harm the environment, this message could be seen as a low fit with their business operations because without sales, there is no existing security. This will increase the suspicion and therefore, lead to more egoistic attribution (Fein, 1996). The expectation is that if the brand or company does meet the claims made in the advertisement, it is likely that the advertisement is perceived as more truthful and believable. Based on the existing literature and the assumptions made here, the following is hypothesized:

*H1: An advertisement that consists of a ‘buy less’ statement is perceived as less credible compared to one that consists of ‘buy green’.*

### *3.1.2 Hypothesis 2: Advertising credibility effect on brand attitude*

Advertising credibility has been studied as a factor in the determination of the consumer’s attitude towards the brand before (Macinnis & Jaworski, 1989), and can be formed in a limited amount of time (Park, Macinnis, Priester, Eisingerich, & Iacobucci, 2010). Research supports this assumption in the following way. The definition of advertising credibility describes to what extent consumers perceive the claims made about the brand in the ad to be truthful and believable (MacKenzie & Lutz, 1989). From this, it can be expected that a credible advertisement will positively stimulate the attitude towards the brand. Therefore, it is hypothesized that:

*H2: An advertisement that is perceived as more credible will positively affect the attitude towards the brand compared to an advertisement that is not perceived as credible.*

Another hypothesis is added to test whether the effect of the message on attitude gets mediated by credibility. Additionally, if this is full mediation, partial mediation, no mediation and why there is mediation. Chances exist that advertising credibility is not the only variable that has an effect on brand attitude. The likelihood is that there will be partial mediation of advertising credibility.

*H2a: Advertising credibility mediates the relationship between advertisement statement (buy less / buy green) and brand attitude.*

*H2b: An advertisement that consists of a “buy less” statement leads to a lower brand attitude compared to one that consists of “buy green”.*

### *3.1.3 Hypothesis 3 & 4: Moderator effect of green added / green deep-seated*

As studies have suggested, there are a few reasons to believe why companies execute a CSR strategy (Marquina Feldman & Vasquez-Parraga, 2013). Research showed that the execution of a CSR strategy is U-shaped which means it depends on the size of the company whether you apply CSR in the strategy. Very large and very small companies are more likely to execute CSR strategies because they will damage their business if they don't. In contrast, middle-sized companies are the least likely to execute CSR strategies. The reasoning behind this is because they were given lesser visibility and higher pressure resistance due to resource access and scale of operations (Udayasankar, 2008). In addition, the size, as well as the structure of the company, impacts how the CSR strategy is executed and is perceived by the consumers and why they feel pressure to actually execute a CSR strategy. Three reasons can be defined for it. First, the competitive landscape required to show CSR and communicate positively about its environmental performance. Secondly, it has to do with corporations limited liability. Large corporations can have a single owner or can be owned by a group of shareholders. Most likely the group of shareholders have one shared goal, that is profit maximization (Kenton, 2019; Stout, 2012). Therefore, this common goal could raise consumer scepticism of yet another attempt of increasing shareholder wealth by communicating how green they are. Next to the sense of compression from the competition or investors, the consumers can also put pressure on more environmentally friendly approaches, for example, growing demand in environmentally friendly products. On the other hand, the execution of a CSR strategy for big corporations or

shareholder-owned companies could work out positively (Delmas & Burbano, 2011). You can make the assumption that a shareholder-owned company has a bigger impact on society. It's because of the impact the companies can cause that the assumption can be made that these companies should take the lead by example (Lantos, 2001). It is, therefore, likely that the mission statement can either positively or negatively affect the impact on the advertisement credibility. The mission statement of the company is in this study used as a proxy for its corporate identity. Every company has a mission statement or something similar. In the mission statements, the company includes the essence of their right to exist. It is of importance that the mission statement is aligned with the business processes. If it is not aligned for example a coal company is claiming to be green, it is more likely it increases the customer scepticism. Based on this information, the following hypotheses are proposed.

*H3: A green deep-seated motive mission statement positively affects the effect of a ‘buy less’ advertisement on credibility.*

*H4: A company with a green deep-seated motive mission statement is perceived more credible compared to a company with a green added mission statement.*

### **3.2 Conceptual framework**

Based on the explained theory the following conceptual framework is formed. The framework describes what the effect is of *buy less* or *buy green* advertisements statements on the credibility of the advertisement and the image of the company. The conceptual framework of the research is shown in Figure 1. The conceptual model shows how the relationship between *buy less* or *buy green* statements and advertisement credibility and company image is affected by different factors.

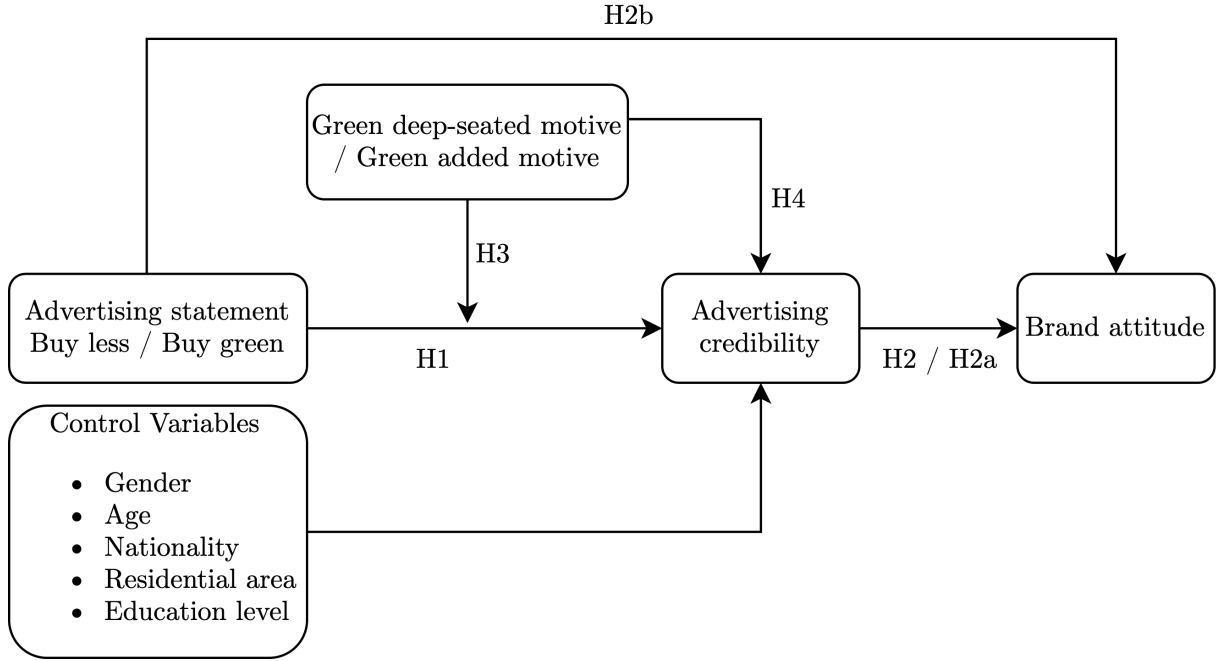


Figure 1: The conceptual model

The rational thoughts of the conceptual framework are as follows. It is assumed that the different advertising statements in the campaign affect the credibility of the advertisement with regard to brand attitude. Reich & Armstrong Soule (2016) showed that the attitude of consumers towards a green demarketing appeal depends heavily on the type of advertising being used. In this study, the advertisements consist of *buy less* or *buy green* statements. This might influence the credibility of the advertisement and can, therefore, influence the brand attitude.



## 4. Methodology

This chapter will go deeper into the method used for this experiment. First, the research design will be explained, which will give a more detailed look at how the research is set up. Second, the experiment design is explained in more detail to showcase how the survey was structured. Third is an elaboration on how the hypothesis will be tested. Fourth, the measurement variables of the concepts in the conceptual model will be explicated. Fifth, there will be a section delving into the assumption underlying the statistical model that is used to run the analysis. Last, the workings of the mediating and moderating variables in the model will be explained, detailing how this is tested.

### 4.1 Research design

The aim of this study is to examine the effect of different statements in advertisements on advertising credibility, and how the advertising credibility of a company can affect the brand attitude of customers. To provide an answer, a quantitative descriptive research design is used to test hypotheses and examine relationships. An online experiment is conducted via the survey software Qualtrics. The Qualtrics survey has been distributed through direct and indirect acquaintances via social media (e.g. Facebook, LinkedIn, Instagram, WhatsApp). By using an integrated option in Qualtrics the link randomly assigned the respondents to one of four questionnaires. The 4 different questionnaires, increases the validity and reliability of the results (Field, 2013). The study has a 2 x 2 between-subjects (*buy less* and *buy green* statements, combined with green deep-seated motive and green added motive). Table 1 provides an overview of the 4 different advertisement combinations that were used in the survey. Selecting a between-subjects design aids in overcoming spillover effects that knowledge obtained in previous questions might cause (Field & Hole, 2003). Otherwise, each of the respondents will have gained some knowledge regarding the advertisement statements which would bias the results of the survey.

Motive X Statement			
		Green deep-seated motive	Green added motive
Advertisement statements	Buy less	Green deep-seated / Buy less	Green added / Buy less
	Buy green	Green deep-seated / Buy green	Green added / Buy green

Table 1: The 2 X 2 between-subjects design

This study includes two different mission statements that differ on one essential part. Both statements are the same except for the word green. As one of the mission statements includes the word green to imply that the company has a deep-seated green motive. In the other statement, the word green is left out and classified as a green added motive. These two different mission statements can indicate a different way of expressing and reasoning behind creation. The absence or presence of the word green will probably influence the way how the advertisements are perceived by its customers. If either the statement and motives are not aligned it could potentially increase customer scepticism.

To test the hypothesis in chapter 3 in a realistic setting, it will be tested in the way that other factors like existing brand and product knowledge have the least influence. This is necessary to collect data that is representative of the dispositions of the participants towards the case presented in this study, influenced only by the variables as presented in the study and decreasing the influence from external factors. A fictitious brand was created in order to avoid the bias and influence of established brand association on the result.

## **4.2 Experiment design**

The survey is composed of different parts: introduction, one of the four different advertisements, brand attitude scale, the ad scepticism scale, manipulation check and the post-experimental questions. In the introduction section, the general rules of the experiment were explained. It is made clear that participation is voluntary and the results would be treated as confidential and anonymously. Afterwards, the topic was introduced in a neutral way to prevent biases or indicate that the survey is about credibility. After the introduction participants were randomly assigned to one of the four full coloured advertisements with corresponding mission statements. There was a timer added below the pictures of 15 seconds. This timer was added to be sure that there was a minimum time for exposing the advertisement. To help increase the way that respondents will actively consume the information provided in the advertisement. The next step in the experiment is the brand attitude scale. To make sure the participants would think thoroughly about the brand attitude after they have seen the advertisement, they were asked first to answer questions about brand attitude on a 5-point systematic scale. Next, to assess ad scepticism, 9 different statements were highlighted where

every participant was asked to indicate on a 5-point Likert scale, ranging from 1 to 5, to what extent they agree with the statements.

After this, there was one question asked as manipulation check. The purpose of this question is double layered. First, it tests the effectiveness of the manipulation used in the experiment. Second, it is an attention check of respondents, to test their awareness of what was included in the mission statement. The participants were asked to indicate to what extent they agree with the following statement: *the missions statement of Wigr fly is green in the essence to reduce the impact on the environment*. Answers to this question provide insights on how this mission statement is perceived by its respondents after filling in the survey. But also, to what extent they have paid attention to the word green in the mission statement that was shown. First, a T-test was done to test whether the green perception of Wigr Fly was significantly different between the green deep-seated and greed added condition. The green deep-seated scored significantly higher on the manipulation check question (Mean = 4.89, Std. Deviation = 1.23) than green added (Mean = 4.20, Std. Deviation = 1.74),  $t(221.88) = -3.66$ ,  $p = 0.00$  (see Appendix A). It is, therefore, unlikely that any observed mean difference would have occurred by chance. Nevertheless, analyses were done both on the full sample of respondents and on the sample of respondents who understood what they had seen and indicated this in the manipulation check question. Because of the Likert nature of the question, only respondents who indicated 1 to 3 in the green added condition and from 5 to 7 in the green deep-seated condition on the Likert scale were added to the sample. The value 4 (neither agree nor disagree) is left out because it does not point to the right direction of what the mission statement intended. It is therefore assumed that in this case, the respondent did not sufficiently understand the mission statement. The results showed that 136 respondents of the in total 260 indicated the right answers on the manipulation check question. However, the respondents were not evenly distributed across the two different mission statements. Only 39 respondents succeeded to fill in the right answer for the green added mission statement. By contrast, 97 respondents indicated the right answer when they saw the green deep-seated mission statement.

Before analysing the results, the measurement models were examined in order to test for reliability and validity of the measured variables. Individual item reliability is used to evaluate factor loadings of the measures with their respective construct. As most of the measurement

scales were distributed from one context to another context, this could result in low reliability. After a factor analysis, the Cronbach alpha analysis was run on both dimensions. Subsequently, the reliability was tested and the hypotheses were tested. The main goal of this study was to determine whether there is a relationship between the independent variables (statements, motives and advertisement credibility) and the dependent variables (advertisement credibility and brand attitude), in order to make predictions on whether uncommon statements are perceived as less or more credible. Both of the dependent variables are measured on a continuous scale after they were averaged, the independent variables are nominal. The full model equation looks as follows:

$$Y_i = \beta_0 + \beta_1 \textit{Motive} + \beta_2 \textit{Statement} + \beta_3 \textit{Motive} \times \textit{Statement} + \beta_4 \textit{Gender} + \beta_5 \textit{Age} \\ + \beta_6 \textit{Nationality} + \beta_7 \textit{Currently living in the Netherlands} \\ + \beta_8 \textit{Residential area} + \beta_9 \textit{Education}$$

The hypothesis H1, H3 and H4 were all included in one regression analysis, followed by mediation and moderation. The latter is detailed in section 4.5.

### 4.3 Variables

#### 4.3.1 *Dependent variables: brand attitude, advertising credibility*

The dependent variables in the conceptual framework are advertising credibility and brand attitude. In order to test the effect between the different statements and advertising credibility, the scale items are adapted from previous empirical studies. There are several studies that have used different metrics for measuring brand attitude. In this study, the measurement scale by (Spears & Singh, 2004) is used. This measurement scale has a high-reliability score and it is suitable for every type of product (Spears & Singh, 2004). Brand attitude is measured with a 5-point semantic differential scale with five items. The respondents are asked for their overall thoughts about the presented brand in the advertisement and mission statement ranging between: unappealing and appealing, bad and good, unpleasant and pleasant, unfavourable and favourable as well as negative and positive.

Several studies have described different measurement scales for advertising credibility. The measurement scale ad scepticism by Obermiller & Spangenberg (1998) is used in this study.

The scale is a 9-item Likert format scale that measures consumer scepticism toward advertising. Obermiller and Spangenberg approached the construct of advertising credibility from the opposite direction which they called “advertising skepticism”(1998). The reason why this scale is used is because of the high reliability (0,97 Cronbach’s Alpha) and it is suitable for every type of product (Obermiller & Spangenberg, 1998).

#### *4.3.2 Independent variable: Advertising campaign*

One of the independent variables in this study is the advertising campaign. As explained earlier, two types of advertisements will be offered in the experiment: an advertisement that consists of a “*buy less*” statement and advertisement that consists of “*buy green*” statement. To express these different advertisements, visual stimuli are in the survey integrated (see appendix E). All the respondents will view one of the visuals combined with one of the two different mission statements. The independent variable is changed to a dummy variable. This is done in order to make it suitable for a regression analysis (Field, 2013).

#### *4.3.3 Independent variable: Green deep-seated motive / Green added motive*

To measure whether the company size affects the customer scepticism of advertisement credibility, the study introduces two different company types, through two different mission statements. The participants will be randomly assigned by Qualtrics to one of the two mission statements. This mission statement is used to distinguish the type of company. The difference in this mission statement is only the word green. As one of the mission statements include the word green it is understood that the company has a deep-seated green motive. In the other statement, the word green is left out and is called a green added motive. This independent variable is also changed to a dummy variable. This is done in order to make it suitable for a regression analysis (Field, 2013).

#### *4.3.4 Control variables*

Control variables are introduced into the statistical model to control for the influence that these variables might have on the dependent variable, external to the hypothesized relationship. No prior research was found on the elaboration of control variables with regard to advertising credibility or demarketing. The following five control variables were chosen; gender, age, nationality, residential area and education level. The elaboration of these control variables is

as follows. The beliefs about the credibility of advertising and brand attitude can differ across these factors. The residential area was added as a control variable because the respondents could evaluate differently on the mission statements. For example, people from the countryside could be closer to nature whereby they are more sceptical about the protection of the environment. Education was added to differentiate between different levels of education. For example, the respondents who got higher education could potentially know more of demarketing and of different CSR strategies that are used. Also, nationality was added because it could be argued that the level of CSR is different across countries. These control variables were also added to understand and see where the respondents were coming from. By adding these control variables it can be determined whether or not they disturb the cohesion between variables.

#### 4.4 Assumptions

In order to run statistical analysis, several assumptions need to be met. Below there is an overview of the assumptions that were tested. No assumptions were violated.

- √ Assumption #1: The dependent variables are measured at a continuous level. The dependent variable advertisement credibility score measured on a 5-point systematic scale, and the brand attitude score is measured on a 7-point Likert scale, thus continuous
- √ Assumption #2: The independent variable consists of two or more categorical, independent groups. The independent variables consist of two variables that are two different mission statements or a *buy less* or *buy green* statement.
- √ Assumption #3: Independence of observations. Qualtrics randomly assigned participants to one of the groups. As assessed by a Durbin-Watson statistic of around 2 it proves there was independence of residuals. (See Appendix D)
- √ Assumption #4: Linear relationship between the independent and dependent variables. The partial regression plots and the scatterplots showed that this assumption was met.
- √ Assumption #5: Homoscedasticity of residuals. The unstandardized predicted values versus studentized residuals plot showed an even spread of residuals. (See Appendix A)
- √ Assumption #6: data showed no multicollinearity. All the Tolerance values are greater than 0.1 (the lowest is 0.264) and all the VIF values are lower than 10 (the highest is 3.791). Therefore, there is no problem with collinearity. (See Appendix A)

- ✓ Assumption #7: No significant outliers in the groups of independent variables. In the scatterplot was one outlier found but due to the relatively large sample size, it is decided to include the outlier. (see Appendix A)
- ✓ Assumption #8: The values of the residuals are normally distributed. This assumption was met with the Shapiro-Wilk test ( $0.308 > 0.05$ ). (See Appendix A for plots)

## 4.5 Mediation & Moderation

There is a distinction between full and partial mediation. In case of full mediation, the relationship is fully explained by the mediator. With full mediation, the direct relationship between the independent variable and dependent variable is not significant if the mediator is included as a predictor of the dependent variable. In partial mediation, the relationship between the dependent variable and independent variable remains, but part of the effect is explained by the mediator. However, a non-significant effect of the total effect, which consists of both the direct and indirect effect, does not directly mean that no mediating effect can be established. The mediator variable only represents a part of the relationship between the dependent variable and the independent variable and the direct relationship can also be explained by other mediators. Therefore, a non-significant effect of the total effect, which consists of both the direct and indirect effect, does not mean that there is no mediating effect. The Sobel test can be used to test whether the indirect effect is significant or not. Usually, the Sobel test is used in a large sample, but it is advised to use the bootstrapping method to see if there is an indirect impact. The macro PROCESS (Preacher & Hayes, 2004) is added as an extension to SPSS in order to perform bootstrap tests. The method of Baron and Kenny was used to test the mediation effect (Baron & Kenny, 1986). They suggest using four steps in order to test for mediation. In the first step, the direct effect of the independent variable on the dependent variable is tested. In the second step, the effect of the independent variable on the mediating variable is tested. In the third step, the effect of the mediating variable on the dependent variable is tested. In the last step, all the variables are included. These 4 steps are performed with a simple linear regression. The steps are as follows:

1.  $(H_{2b}) \text{ Brand attitude} = \alpha + \beta_1 * \text{Buy less} + \beta_2 * \text{Buy green} + \varepsilon$
2.  $(H_1) \text{ Advertising credibility} = \alpha + \beta_3 * \text{Buy less} + \beta_4 * \text{Buy green} + \varepsilon$
3.  $(H_2 \& H_{2a}) \text{ Brand attitude} = \alpha + \beta_5 * \text{Advertising credibility} + \varepsilon$
4.  $\text{Brand attitude} = \alpha + \beta_6 * \text{Buy less} + \beta_7 * \text{Buy green} + \beta_8 * \text{Advertising credibility} + \varepsilon$

## 5. Data analysis and results

In this chapter statistics of the data are shown. At the end of this chapter, a table (7) of hypotheses results are summarized. The online experiment ran for 14 days from 5<sup>th</sup> February 2020 until February 18<sup>th</sup> and resulted in 260 respondents. Participants were attracted via personal network, social media and surveyswap.io and surveycircle.com. These two websites are initiatives where you can fill in other people's surveys, in return you get rewarded with credits. These credits give other people the opportunity to fill in your survey. Different statistical tests are needed to test the conceptual model. For all the statistical tests a significance level of  $\alpha = 0.05$  is applied.

### 5.1 Descriptive statistics

In total, 359 participants started the survey of which 260 completed the whole survey. The data is checked for missing values or outliers by studying the frequencies and histograms. Consequently, the dropout rate is 27.6%. Most of the dropouts already quit the survey in the introduction phase of the survey. Table 2 lists the characteristics of the respondents. As can be seen, 54.6% of the respondents were male and 45.4% were female. The majority of the respondents come from the group 18-24. Cumulatively the respondents from an age of 25-34 constituted approximately 85.0% of the sample. The sample consists of 4 different groups, where each group consist of at least 62 respondents. With regard to their educational level, 70.0% of the respondents had a university degree, 20.0% had bachelor's in applied science and the residual were divided over three other education categories. In terms of location, the majority of 76.0% of the respondents live in the city. With regard to nationality, 178 respondents have the Dutch nationality.

Respondents Characteristics				
Characteristics		Frequency	Percentage (%)	Cumulative Percent (%)
Gender	Male	142	54.6	54.6
	Female	118	45.4	100.0
	Total	260	100.0	
Age	Under 18	1	0.4	0.4
	18-24	138	53.1	53.5
	25-34	83	31.9	85.4
	35-44	13	5.0	90.4
	45-54	5	1.9	92.3
	55-64	12	4.6	96.9
	65 or older	8	3.1	100.0



Respondents per survey	Survey A	63	24.2	24.2
	Survey B	72	27.8	52.0
	Survey C	62	23.8	75.8
	Survey D	63	24.2	100.0
Education	Secondary School	16	6.2	6.2
	mbo	8	3.1	9.2
	hbo	52	20.0	29.2
	University bachelor	86	33.1	62.3
	University master	96	36.9	99.2
	I prefer not to say	2	0.8	100.0
Location	City	198	76.2	76.2
	Suburban	18	6.9	83.1
	village	30	11.5	94.6
	Country-side	14	5.4	100.0
Nationality	Dutch	178	68.5	69.0
	Other	82	31.5	100.0

*Table 2: Respondents characteristics*

## 5.2 Evaluating the measurement models

The principal component analysis (PCA) was run on a 5-question questionnaire that measured the brand attitude on 260 respondents. First, the correlation matrix (see appendix A) was inspected to see if all the variables had at least one correlation coefficient greater than 0.03, none of them was lower. The Kaiser-Meyer-Olkin Measure (KMO) measure was 0.86, (see appendix A) with a classification of ‘meritorious’ according to (Kaiser, 1974). The KMO measure is used as an index of whether there are linear relationships between the variables (Laerd Statistics, 2015). The analysis showed that only one component had eigenvalues (see appendix A) greater than one which explained 70.5% of the variance. Next to that the scree plot (see appendix A) showed that there is one component. With this information, it is proved that the interpretation was consistent with the brand attitude attributes the questionnaire was designed to measure. Next to brand attitude also the component advertisement credibility was tested on its reliability. The PCA was run on the 9-question questionnaire that measured the credibility of 260 respondents. The results from the correlation matrix (see appendix B) showed that all the variables had at least one correlation coefficient greater than 0.3. The KMO measure was 0.912 which indicates a “marvellous” indication according to Kaiser. Also, from this analysis, only one component had an eigenvalue (see appendix B) greater than one which explained 52.6% of the variance. The scree plot (see appendix B) showed that one component

could be extracted. Therefore, it is concluded that the attributes are consistent with the component credibility.

Next to the PCA analysis, the Cronbach alpha analysis (see table 3) was run on both dimensions. The constructs, brand attitude and credibility consisted of 5 and 9 items respectively. Both values reached higher than the threshold of 0.70 (respectively for brand attitude 0.89 and for credibility 0.89), which means there is a high level of internal consistency (Peterson, 1994).

Reliability Statistics			
	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of items
Brand attitude	0.894	0.895	5
Credibility	0.885	0.887	9

Table 3: Reliability Statistics

### 5.3 Hypotheses testing

In table 4 the results of the ANOVA test can be seen. None of the independent variables are significantly predicting the dependent variable,  $p > 0.05$ . The model has the main effects, which consist of the dependent variable advertisement credibility and the independent variables motives (*green deep-seated* and *green added*), the statements (*buy less* and *buy green*), the interaction variable between motives and statements and control variables (gender, age, nationality, currently living in the Netherlands, residential area and education).

ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig. P-value
1	Regression	2.616	9	0.291	0.484	0.855
	Residual	150.108	250	0.600		
	Total	152.725	259			

Table 4: ANOVA test with DV: advertisement credibility

In table 5 the R-squared value is 1.7%, which means that all the independent variables in the regression model explain 1.7% of the proportion of variance of the dependent variable.

Coefficients		B	Std. Error	Sig.
Model 1	Constant	2.973	0.257	0.000
R <sup>2</sup> = 0.017	Motive (green deep-seated / green added)	0.89	0.135	0.512
	Statement (buy less / buy green)	0.002	0.140	0.990
	Motive * Statement	-0.053	0.194	0.786
	Gender	-0.096	0.108	0.373
	Age	0.011	0.045	0.810
	Nationality	0.020	0.201	0.922
	Currently living in the Netherlands	-0.034	0.202	0.868
	Residential area	0.005	0.062	0.932
	Education	-0.65	0.044	0.145

Table 5: Multiple regression model output DV: advertisement credibility, N=260

The information from table 5 showed no significant result. Regarding the main effect it can be seen that both, green deep-seated motive / green added motive ( $\beta = 0.890$ ,  $p = 0.512 > 0.05$ ) and *buy less / buy green* statements ( $\beta = 0.002$ ,  $p = 0.990 > 0.05$ ) are not significant. Meaning that there is no significant relationship between the advertisement statement and advertising credibility and between the mission statement motives and advertising credibility. Based on these H1 and H4 are rejected. No significant relationships were found.

The variables can impact the direction and or strength between two variables. Since this study also explores if the mission statements of companies have an effect on these relationships a moderation analysis was run. The mission statements did not moderate the effect of *buy green* or *buy less* statements on advertisement credibility, as evidenced by the interaction effects. The interaction effect between motive and statement is not significant ( $\beta = -0.053$ ,  $p = 0.786 > 0.05$ ). With this information, it can be stated that hypothesis 3: *A green deep-seated motive mission statement positively affects the effect of a ‘buy less’ advertisement on credibility*, is rejected.

The regression model is estimated again for the subsample of respondents who succeeded in the manipulation check ( $n = 136$ ). As can be seen in table 6, the main effect of the advertising statement (*buy less / buy green*) is still insignificant. Interesting to see is that motive became less insignificant and is significant at a confidence level of 90%. This result is in line with hypothesis H4. Furthermore, the new regression showed an R-squared of 10.7% which is a

slight increase compared to the old model. Due to these relatively small changes, it is chosen to not repeat the remaining analyses on the smaller subsample. Also, the unbalanced design can impact further analyses negatively.

		Coefficients		
		B	Std. Error	Sig.
Model 2	Constant	2.889	0.369	0.000
R <sup>2</sup> = 0.107	Motive (green deep-seated / green added)	0.361	0.205	0.082
	Statement (buy less / buy green)	-0.157	0.253	0.537
	Motive * Statement	0.255	0.302	0.400
	Gender	-0.156	0.161	0.334
	Age	0.007	0.060	0.902
	Nationality	0.071	0.265	0.790
	Currently living in the Netherlands	0.028	0.259	0.914
	Residential area	0.004	0.081	0.963
	Education	-0.098	0.060	0.100

Table 6: Multiple regression output, DV: advertisement credibility, N=136

### 5.3.1 Mediation analysis – Advertising credibility

The mediation analyses are conducted to check whether advertising credibility mediates the relationship between the advertising statements *buy less / buy green* and brand attitude. These analyses determine whether the variable advertising credibility partially or completely explains the relationship between the advertisement statements *buy less / buy green* (IV) and the brand attitude (DV). As described in the methodology chapter 4 in order to determine a mediator, 4 different pathways are established.

#### Pathway 1

The first step is measured with a linear regression performed on the dependent variable “brand attitude” with “advertisement statement” as the predictor. The predictor variable is a categorical variable with two groups, one dummy variable (Statement) is created with *buy less* as the base case (value in SPSS 0) to perform the regression model. The model explained 0.0% of the variance ( $R^2 = 0.000$ ,  $F(258) = 0.006$ ,  $p = 0.941$ ). Advertisement statement is not significant related with brand attitude ( $\beta = -0.007$ ,  $t(258) = -0.074$ ,  $p = 0.941$ ). Pathway 1 (H2b) is rejected.

### Pathway 2

The second step is also measured with linear regression. The dependent variable is ‘advertisement credibility’ with ‘advertisement statement’ as predictors. Also, in this case, the dummy variable (Statement) is used in order to run the analysis. The model explained 0.0% of the variance ( $R^2 = 0.000$ ,  $F(258) = 0.041$ ,  $p = 0.839$ ). Advertisement statement is not significantly related to advertisement credibility. ( $\beta = -0.019$ ,  $t(258) = -0.204$ ,  $p = 0.839$ ). Pathway 2 (H1) is rejected. This outcome is in line with the result that was found in the analysis before.

### Pathway 3

The third step is measured with linear regression. The dependent variable is ‘brand attitude’ with ‘advertisement credibility’ as predictor. The output from the analysis showed that there was a problem with outliers. Two outliers could have a negative effect on the predicted coefficients of the regression. These would then be used to predict the dependent variable, which creates bias because it influences the average or beta. It is decided to remove these two data points because the data points have such an influence on the generalization of the results. The model explained 15.4% of the variance ( $R^2 = 0.154$ ,  $F(256) = 46.609$ ,  $p = 0.000$ ), Brand attitude is significantly associated with the predictor advertisement credibility. ( $\beta = 0.397$ ,  $t(256) = 6.827$ ,  $p = 0.000$ ). Pathway 3 (H2) is confirmed. All of the output from SPSS can be found in Appendix C.

### Pathway 4

The last step, includes all the variables (both independent and mediating) on the dependent variable, using multiple linear regression. The model explained 15.4% of the variance ( $R^2 = 0.154$ ,  $F(255) = 23.214$ ,  $p = 0.000$ ). Advertisement credibility was significantly associated with brand attitude but advertisement statement was not significantly associated with brand attitude ( $\beta = 0.397$ ,  $t(255) = 6.814$ ,  $p = 0.000$ ); ( $\beta = 0.002$ ,  $t(255) = 0.028$ ,  $p = 0.978$ ), respectively. To confirm whether advertising credibility mediates the relationship between advertisement statement and brand attitude a bootstrap test is conducted. In figure 2 the results of the PROCESS bootstrap are visualised. The analysis shows the confidence interval (-0.0817 to 0.0659). This range includes zero, which means ‘no effect whatsoever’ in other

words, there is no mediation. Further details of the PROCESS analysis can be found in Appendix D.

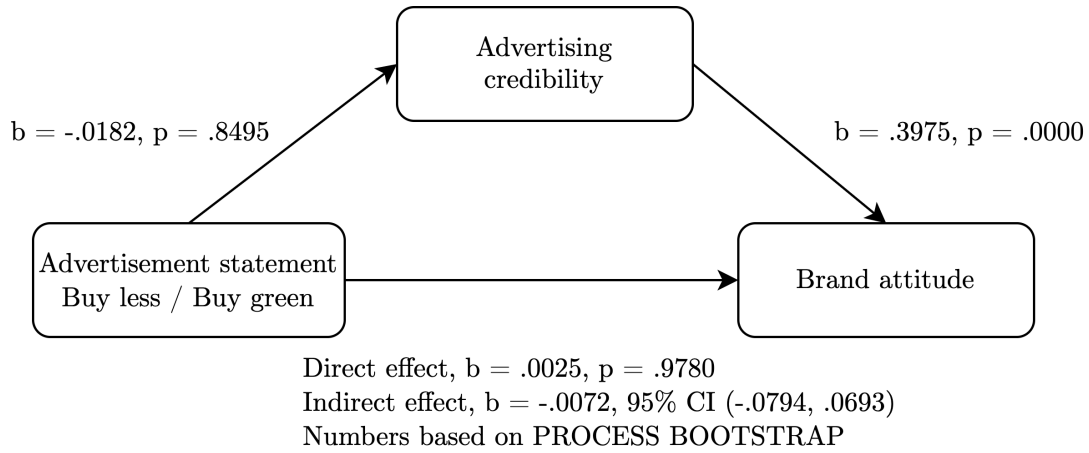


Figure 2: PROCESS bootstrap mediator analysis

## 5.4 Summary of the results

In this chapter, all the hypotheses are presented. The table below shows an overview of the hypotheses which were confirmed or rejected.

Hypotheses		Confirmed / Rejected
H1	An advertisement that consists of a “buy less” statement is perceived as less credible compared to one that consists of ‘buy green’.	Rejected
H2	An advertisement that is perceived as more credible will positively affect the attitude towards the brand compared to an advertisement that is not perceived as credible.	Confirmed
H2a	Advertising credibility mediates the relationship between advertisement statement (buy less / buy green) and brand attitude.	Rejected
H2b	An advertisement that consists of a “buy less” statement leads to a lower brand attitude compared to one that consists of “buy green”	Rejected
H3	A green deep-seated motive mission statement positively affects the effect of a “buy less” advertisement on credibility.	Rejected
H4	A company with a green deep-seated motive mission statement is perceived more credible compared to a company with a green added mission statement.	Rejected

Table 7: Hypothesis overview confirmed or rejected

## 6. Conclusion

In this last chapter, the empirical findings that were found and presented are being discussed. After the general discussion, managerial implications, limitations of the research and a conclusion will be provided. Some advice and recommendations for future research will then be given.

### 6.1 General discussion

The objective of this study was to identify if the credibility of advertisements showing statements *buy less* and *buy green* differ and have an impact on the brand attitude while taking a possible determinant as green deep-seated / green added motive into consideration. Within this research, a moderation effect of mission statements is measured. Furthermore, it is tested if there is a mediating effect of advertisement credibility between the relationship of an advertisement that consists of *buy less* or *buy green* statement and the brand attitude. The gap between the existing literature and the findings from this study will be discussed in this paragraph.

This study focused on two different statements, one is uncommon and the other one is more moderate. The uncommon statement is; *buy less* and the more moderate one *buy green*. The analysis showed that there is not a significantly different impact on advertisement credibility between both statements. However, Reich & Armstrong found a significant effect that consumers' will infer more genuine environmental concern for a brand using a green appeal versus a green demarketing appeal (2016). The potential explanation for this result could be that the act of advertising is perceived as an effort by the brand to encourage consumption. Therefore, an appeal to consume less may appear confusing or contradicting to consumers (Reich & Armstrong Soule, 2016). The explanation why in this study no significant results were found could be because of the product itself. However, in the study of Reich & Armstrong the operationalization of product advertising was narrow and includes only trash bags made of stronger plastic. Trash bags are typically products with low product involvement from the customer. On the contrary, a plane ticket is a product where the customers are much more involved with. Therefore, people reacted differently to an advertisement that is from a high-involvement product compared to that of a low-involvement product (Swinyard & Coney,

1978). The people who took the survey could have reacted differently on the product in this survey.

Other studies revealed that the credibility of an advertisement has an effect on brand attitude (Macinnis & Jaworski, 1989). The results from this study are in line with the study that was found namely, there is a significant effect of advertising credibility on brand attitude. The score of brand attitude will be higher when the advertisement credibility is higher. However, advertising credibility is not mediating between the relationship of an advertisement that consists of a *buy less* or *buy green* statement and brand attitude according to the results of the survey. Furthermore, the advertisement that consists of a *buy less* statement does not have a significantly different effect on brand attitude compared to advertisements that consist of *buy green*. The reason why the result from the statements (*buy less* / *buy green*) are insignificant could be because the novelty of the appeal from the *buy less* statement could go either way. The consumers do not expect advertisements to discourage consumption and, therefore, the statement could have appeared as more novel or innovative as the *buy green* statement. Novelty perceptions could enhance attitudes toward both the advertisement and brand (Sheinin, Varki, & Ashley, 2011), which may undo the effects from unfamiliarity which formed the basis of the hypothesis (LaBarbera, 1982). Because of the unfamiliarity of the *buy less* statement, it can be perceived as less believable. Another mechanism that may explain some of the findings is two-sided advertising. When the advertisement asked to *buy less*, it explicitly states something negative about consumption of the product or service in general. The negative tone could increase the honesty of the advertisement and thus the evaluate the brand more favourably (Pechmann, 1992), which could again zero any negative effects. Shortly summarized there are many reasons for potential effects from the *buy less* / *buy green* statements. But each of them is contradicting each other wherefore no significant result is found.

This research investigated both the effects of the green deep-seated motive and the green added motive, to see if there were effects on the relationship between the *buy less* / *buy green* statement and advertisement credibility. The mission statement of the company is in this research used as a proxy for its company structure. As the hypothesis stated it was expected that a green deep-seated motive mission statement would positively impact the effect of a *buy less* advertisement on credibility. In other words, a company with a green purpose that was



started with the intention to be green does not significantly impact the effect of a *buy less* advertisement on credibility. The thoughts behind this reasoning were due to the research from Du and Bhattacharya (2010) that was found earlier. Their research concluded that it is of great importance to find a high fit with CSR communication and the business they are active in. A higher fit between cause and the business of the company decreases the scepticism of customers. With this information it would be in line when a green purpose started company, results in a more positive or at least strengthen the effect of the advertisement statements on advertising credibility. However, the effect of the mission statement on the relationship between advertisement statement and advertising credibility showed no significance. This means that consumers have not significantly taken the company structure into consideration upon deciding how credible the advertisement is. An explanation for this result could be that the people who took the survey did not have a feeling for how big this fictitious company is and in what kind of market it is operating in. As the theory explained, small and big corporations are the most likely to execute CSR strategies because, if not, it damages their business. People who took the survey did not have sufficiently detailed information about the company except for the mission statement. Besides, the company structure and the market where the company operates in, does impact how the CSR strategy is perceived by its customers. For example, the competitive landscape and the way the company is structured e.g. limited liability or single owned. it could have happened that people potentially made up their assumption and affected, therefore, the credibility.

## **6.2 Managerial implications**

The intention of this study was in the first place to provide a better understanding of the relatively unused term ‘demarketing’ and provide additional context to existing studies on demarketing. Therefore, this thesis complements earlier research on the effect of *buy less* and *buy green* statements in an advertising context (Armstrong Soule & Reich, 2015; Reich & Armstrong Soule, 2016). Most of the studies in this area have been investigating the role of the government in demarketing on social issues. This study contributes by examining if there is an effect of mission statement on the effect of advertisement statements and advertising credibility, which additionally could have potentially influenced the brand attitude. The results showed that using a *buy less* advertising campaign does not hurt advertisement credibility differently from a *buy green* statement. This has implications for companies who would like to

use such statements. For example, a company that wants to be distinctive from its competitors. A *buy less* statement is something the customer would not expect and distinguish the company without hurting their credibility. However, further investigation is necessary to test if it applies to every company or product. This also could contribute to the integration of a *buy less* statements in a CSR strategy. Companies can decide on integrating a *buy less* statement into their CSR strategy without major effects from customers behaviour. It is likely that more companies and brands in the future will focus on activities based on reducing their impact on the environment. The inefficient recycling process has drawn focus away from reducing consumption, which is a more effective way to mitigate the damage done to the natural environment (Armstrong Soule & Reich, 2015). It is therefore important that the marketing managers know exactly what the effects of de-stimulating statements are. This study contributed to that knowledge gap of not knowing what the effect is of these uncommon statements. The use of these statements will likely increase, as people become more aware of combating environmental issues in an effective way.

A significant positive effect was found for advertising credibility on brand attitude. These results are relevant for the marketing manager and certain retailers since these results show that the credibility of advertising is important for the attitude toward a brand of a company or the company itself. An advertisement that is perceived as a credible advertisement, increases the perception of the brand attitude. Future research can have a more in-depth look at how to implement an uncommon statement in their advertisement campaign.

### **6.3 Limitations and recommendations for future research**

Even though the research has revealed some new insights it is likely that certain aspects of the research could have been improved upon.

First, and probably the most important limitation is the generalizability of the results in relation to advertisement credibility. The study consists of a particular product that is more perceived as a service than a product. There are differences in marketing for a product and a service. Customers must be present during the production of any services (haircut, airplane). Due to this the producer and the seller are the same entity, making only direct distribution possible and causing marketing and production to be highly interactive (Zeithaml,

Parasuraman, & Berry, 1985). Therefore, the results and outcome could have been different if a product was used in the advertisement. So, it should be said that the conclusions of this study must be interpreted with caution. Since the outcome could differ for other services or products. In the future, different kinds of products and services could be examined to see if there is a different result in advertisement credibility and if it shows significant differences.

Secondly, the name of the organization was unfamiliar to the participants, which may have resulted in lower trust and uncertainty.

The third limitation of this study is the fact that most of the responders are Dutch. The majority of the results are based on consumers that are familiar with Dutch governmental regulations, business norms and trust feelings. Therefore, the results should be generalized with care.

The fourth limitation is regarding the manipulation check of this study. It can be questioned whether the manipulation was adequate enough. The question was asked at the end of the survey, but the respondents had seen the advertisement and the mission statement together. The advertisement itself and its green message could, therefore, have influenced the manipulation check response of respondents. Respondents could have answered the manipulation check question with a combination of the mission statement and the advertisement in mind. Another limitation of the manipulation check is the unbalanced design, where the adjusted study design consisted of 39 respondents who saw the green deep-seated and answered correctly on the manipulation check question. 97 respondents saw the green added mission statement and answered correctly on the manipulation check question. The more unbalanced the design, the greater the negative effect a violation of an assumption has on the validity of the test (Laerd Statistics, 2015).

Lastly, with an online experiment, it is impossible to control for external factors. Due to this, it cannot be said that every participant was fully engaged during the entire survey. Other aspects that should be taken into account are age and education. 85.4% of the respondents were 34 or younger. The results could be different when the respondents were more divided.

Besides age, education was also risky as it showed that 70% of the respondents were university educated. This should also be taken into account as it is not representative of the population.

Future research should have a look at the execution of qualitative research, such as in-depth interviews to get a deeper understanding of the reason why a statement of *buy less* is perceived as less credible. Another experimental study could investigate a wider range of uncommon statements that stimulate the customer to *buy less*.

## 6.4 Conclusion

The overall question in this research was “*Does the credibility of advertisements showing buy less or buy green differ and have an impact on the brand attitude while taking a possible determinant as green deep-seated motive or green added motive into consideration?*”. Some of the results show different outcomes as expected. First, it was concluded that there were no significant differences for the *buy less* and *buy green* statements on advertising credibility. Additional, results showed that there was a significant result for the effect of advertisement credibility on brand attitude. Furthermore, no mediating effect is established for advertisement credibility between the relationship, *buy less* and *buy green* statements and brand attitude. green deep-seated motive and green added motive are no significant mediators in the relationship between *buy less* and *buy green* statements and advertisement credibility.

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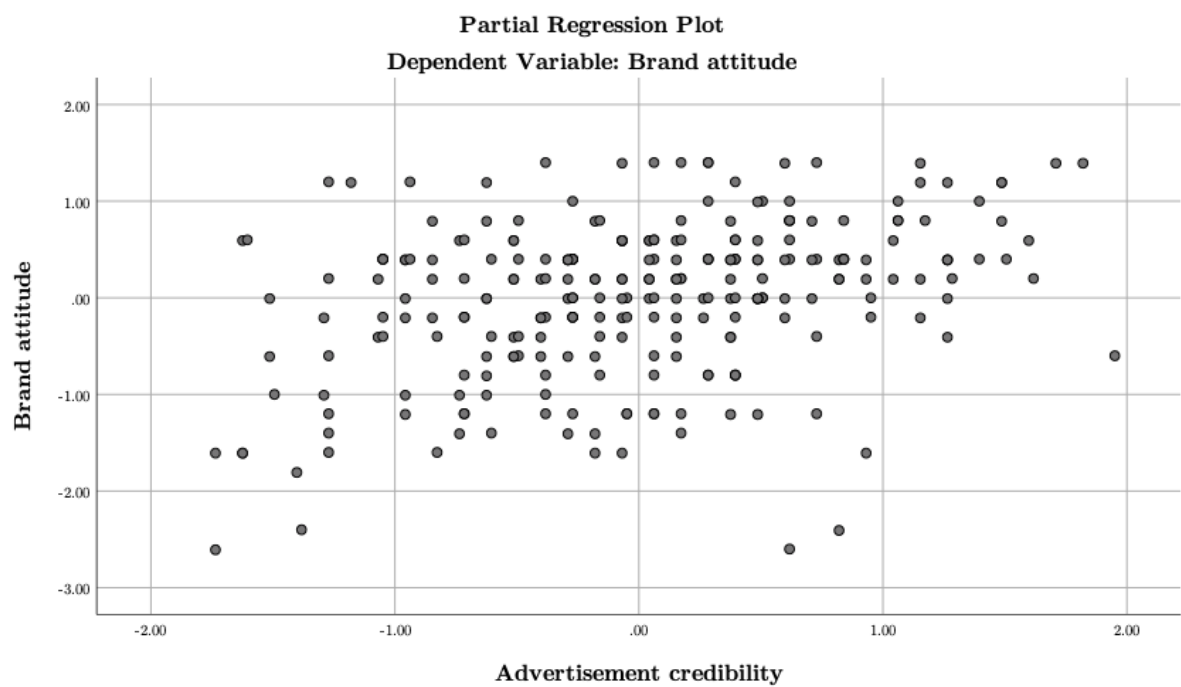
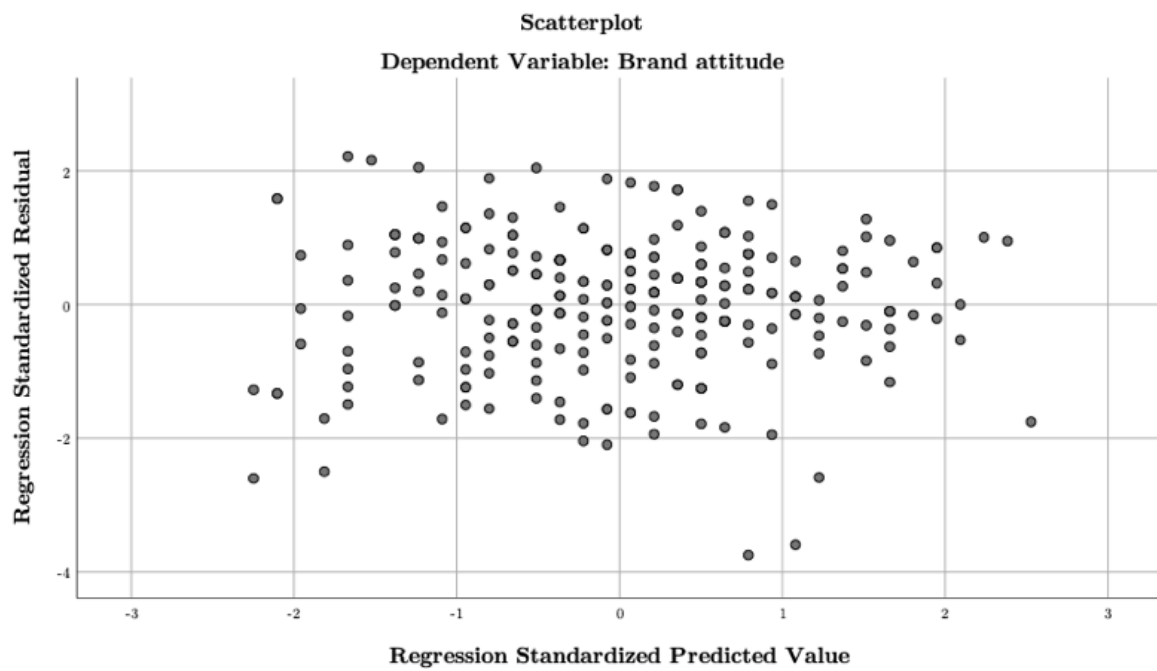
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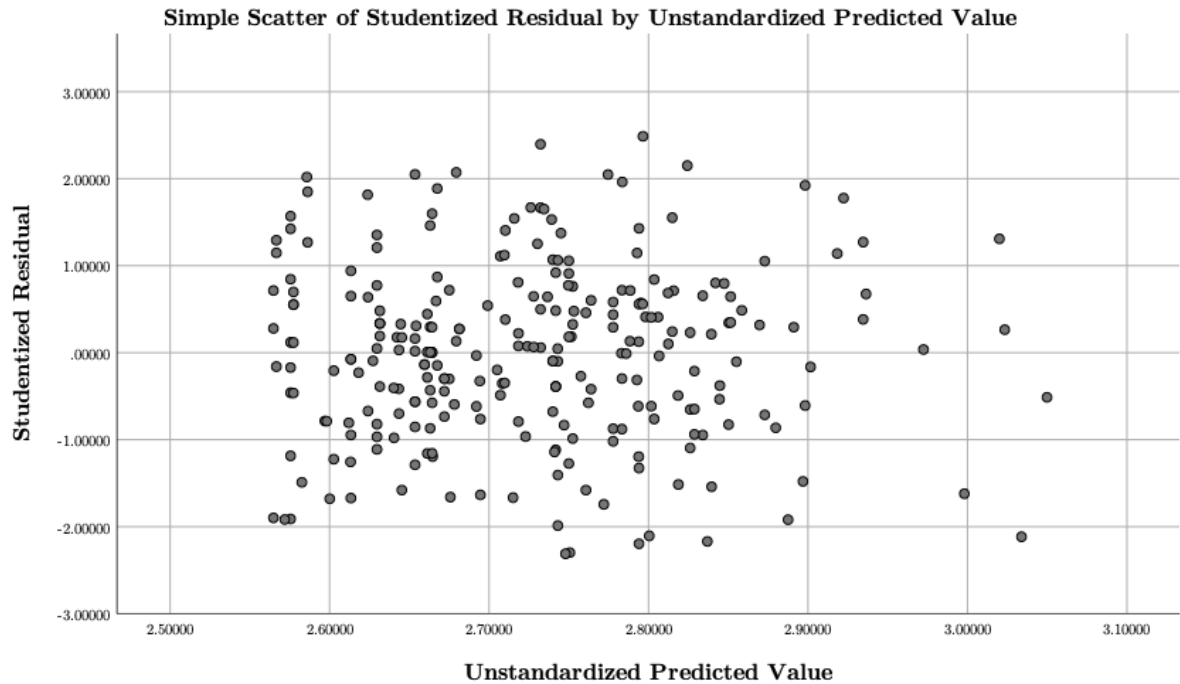
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## 8. Appendix

### A: Assumptions & T-test

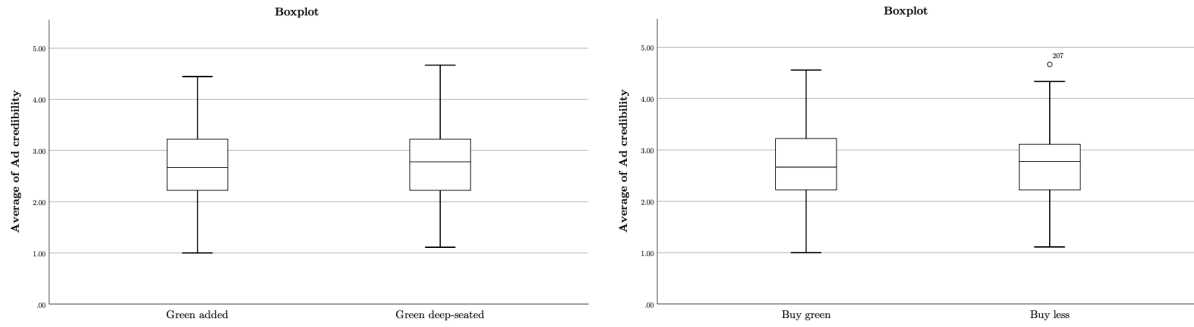




Correlations										
	Average of Ad credibility	Green Deep Seated / Green Added	Buy less / Buy green	Motive * Statement	What is your gender?	What is your age?	What is your nationality?	Are you currently living in the Netherlands?	Where do you live?	What is your highest completed level of education?
Average of Ad credibility	1.000	.047	-.013	.007	-.064	.025	.031	.032	.046	-.102
Green Deep Seated / Green Added	.047	1.000	-.037	.544	.004	.108	.040	.011	.083	-.032
Buy less / Buy green	-.013	-.037	1.000	.583	-.044	-.014	.054	.071	.024	-.022
Motive * Statement	.007	.544	.583	1.000	.011	.107	.022	.041	.079	-.021
What is your gender?	-.064	.004	-.044	.011	1.000	.135	-.412	-.318	-.143	.013
What is your age?	.025	.108	-.014	.107	.135	1.000	-.250	-.222	.403	-.122
What is your nationality? - Selected Choice	.031	.040	.054	.022	-.412	-.250	1.000	.838	.020	-.039
Are you currently living in the Netherlands?	.032	.011	.071	.041	-.318	-.222	.838	1.000	-.042	-.078
Where do you live?	.046	.083	.024	.079	-.143	.403	.020	-.042	1.000	-.236
What is your highest completed level of education?	-.102	-.032	-.022	-.021	0.13	-1.22	-0.39	-.078	-.236	1.000

Coefficients*													
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95,0% Confidence Interval for B	Correlations			Collinearity Statistics		
		B	Std. Error				Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	2.945	.334		8.821	.000	2.288	3.603					
	Green Deep Seated / Green Added	.089	.135	.058	.657	.512	-.177	.355	.047	.042	.041	.507	1.973
	Buy less / Buy green	.002	.140	.001	.013	.990	-.273	.277	-.013	.001	.001	.475	2.105
	Motive * Statement	-.053	.194	-.029	-.272	.786	-.435	.330	.007	-.017	-.017	.333	2.999
	What is your gender?	-.096	.108	-.063	-.893	.373	-.309	.116	-.064	-.056	-.056	.798	1.252
	What is your age?	.011	.045	.017	.240	.810	-.077	.099	.025	.015	.015	.750	1.334
	What is your nationality?	-.020	.201	-.012	-.098	.922	-.416	.377	.031	-.006	-.006	.264	3.791
	Are you currently living in the Netherlands or have you ever lived in the Netherlands?	.034	.202	.019	.166	.868	-.365	.432	.032	.010	.010	.287	3.481
	Where do you live?	.005	.062	.006	.085	.932	-.117	.127	.046	.005	.005	.751	1.331
	What is your highest completed level of education?	-.065	.044	-.095	-1.462	.145	-.152	.023	-.102	-.092	-.092	.928	1.078

a Dependent Variable: Average of Ad credibility



A T-test on the sub-sample was run to prove if the smaller sample could significantly distinguish the differences between the green deep-seated mission statement and the green added mission statement. several assumptions for the T-test were tested.

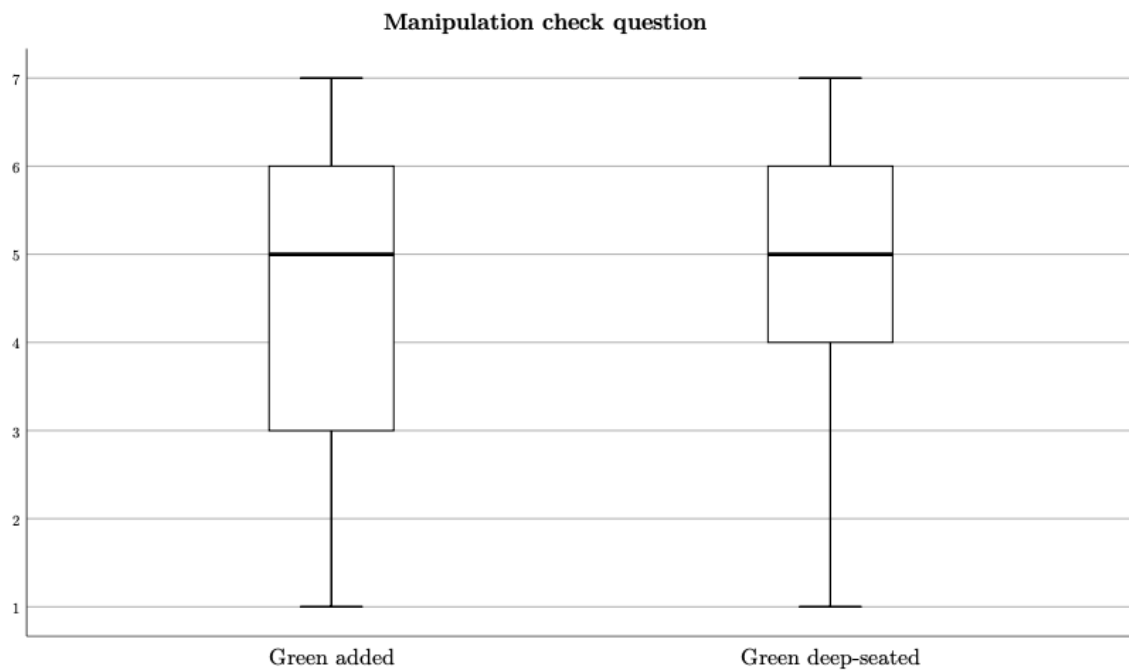
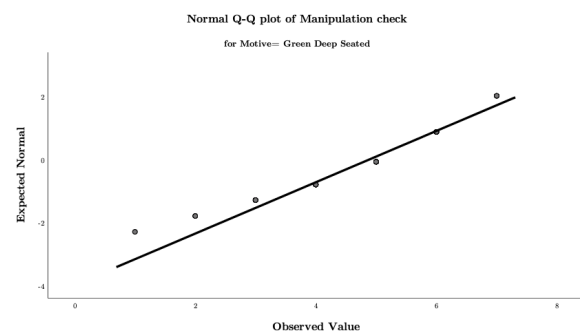
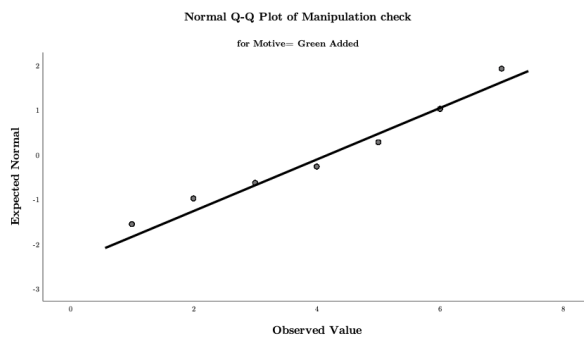
- ✓ Assumption #1: Continuous dependent variable;
- ✓ Assumption #2: Independent variable is categorical with two groups;
- ✓ Assumption #3: Independence of observations.
- ✓ Assumption #4: no significant outliers in the two groups of independent variables
- Assumption #5: Approximately normally distributed for each group of the independent variable. Based on the Shapiro-Wilk test the assumption was not met, but the histogram and Q-Q plot showed approximately normal distribution. Additionally, the T-test is robust to violations of normality (Field, 2013).
- Assumption #6: Homogeneity of variances. No homogeneity of variances was assessed by Levene's test for equality of variances ( $p = 0.000$ ). Therefore, Welch T-test was used, equal variances not assumed.

Independent Sample Test									
Levene's Test for Equality of Variances								95% Confidence Interval of the Difference	
	F	Sig.	t	df	Sig. (2-tailed)	Mean Differences	Std. Error Difference	Lower	Upper
Equal variances assumed	24.144	0.000	-3.710	258	0.000	-0.689	0.186	-1.055	-0.323
Equal variances not assumed			-3.663	221.88	0.000	-0.689	0.188	-1.060	-0.318

Group Statistics				
	N	Mean	Std. Deviation	Std. Error
Green added	125	4.20	1.737	.155
Green deep-seated	135	4.89	1.232	.106

Tests of Normality				
	Shapiro-Wilk			
2 types of advertisement	Statistic	df	Sig.	
Green added	0.910	125	0.000	
Green deep-seated	0.882	135	0.000	

*T-test normality, DV: advertisement credibility*



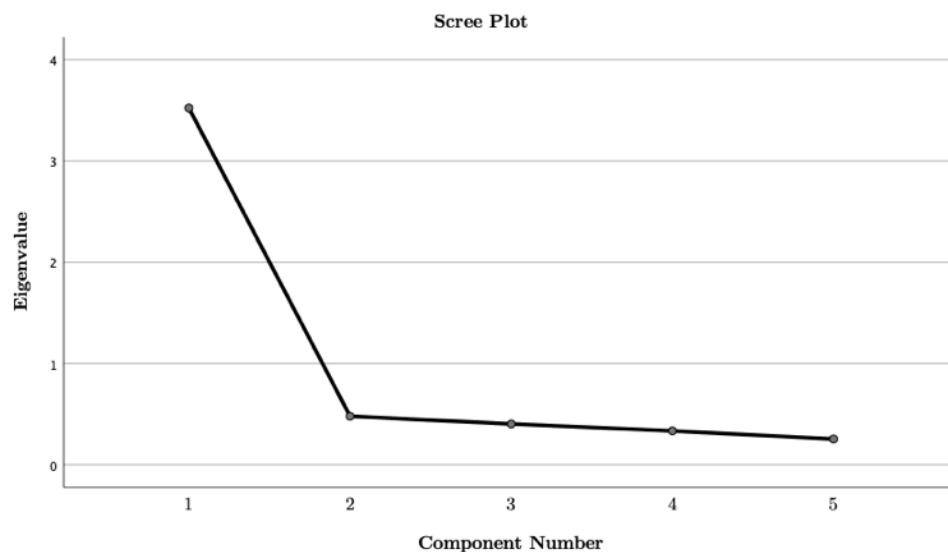


## B: Factor analysis brand attitude

Correlation Matrix					
	Bad/ Good	Unappealing/ Appealing	Unpleasant/ Pleasant	Unfavourable/ Favourable	Unlikable/ Likeable
Bad/Good	1.000	0.562	0.598	0.590	0.673
Unappealing/Appealing	0.562	1.000	0.580	0.697	0.668
Unpleasant/Pleasant	0.598	0.580	1.000	0.646	0.659
Unfavourable/Favourable	0.590	0.697	0.646	1.000	0.630
Unlikable/Likable	0.673	0.668	0.659	0.630	1.000

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.866
Bartlett's Test of Sphericity	Approx. Chi-Square	726.597
	df	10
	Sig.	0.000

Total Variance Explained (PCA)						
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.523	70.465	70.465	3.523	70.465	70.465
2	0.480	9.609	80.074			
3	0.405	8.091	88.165			
4	0.336	6.719	94.884			
5	0.256	5.116	100.000			

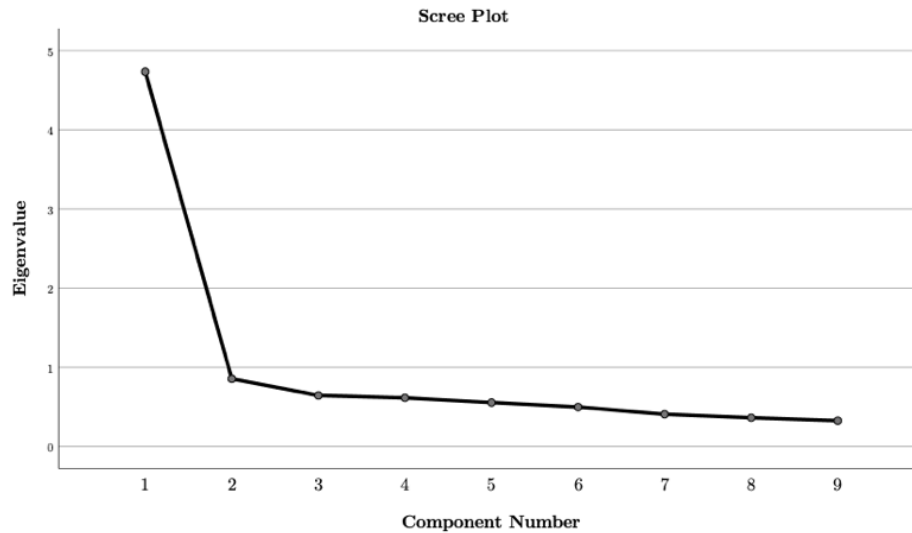


**C: Factor analysis advertisement credibility**

Correlation matrix									
Questions	1	2	3	4	5	6	7	8	9
Question 1	1.000	0.403	0.447	0.505	0.473	0.595	0.484	0.523	0.483
Question 2	0.403	1.000	0.422	0.388	0.400	0.378	0.452	0.416	0.455
Question 3	0.447	0.422	1.000	0.441	0.414	0.434	0.445	0.545	0.567
Question 4	0.505	0.388	0.441	1.000	0.461	0.631	0.583	0.471	0.367
Question 5	0.473	0.400	0.414	0.461	1.000	0.446	0.421	0.438	0.364
Question 6	0.595	0.378	0.434	0.631	0.446	1.000	0.586	0.463	0.425
Question 7	0.484	0.452	0.445	0.583	0.421	0.586	1.000	0.535	0.409
Question 8	0.523	0.416	0.545	0.471	0.438	0.463	0.535	1.000	0.468
Question 9	0.483	0.455	0.567	0.367	0.364	0.425	0.409	0.468	1.000

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.912
Bartlett's Test of	Approx. Chi-Square	979.443
Sphericity	df	36
	Sig.	0.000

Total Variance Explained (PCA)						
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.733	52.585	52.585	4.733	52.585	52.585
2	0.856	9.511	62.096			
3	0.645	7.165	69.261			
4	0.615	6.830	76.091			
5	0.555	6.167	82.259			
6	0.499	5.540	87.798			
7	0.408	4.536	92.335			
8	0.363	4.037	96.372			
9	0.327	3.628	100.000			



## D: Linear regression analysis

### Pathway 1

#### Model Summary<sup>b</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0.005 <sup>a</sup>	0.000	-0.004	0.80741	2.375

a. Predictors: (Constant), Statement / b. Dependent Variable: Brand attitude

#### ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	0.004	1	0.004	0.006	0.941 <sup>b</sup>
	Residual	168.193	258	0.652		
	Total	168.196	259			

a. Predictors: (Constant), Statement / b. Dependent Variable: Brand attitude

#### Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients		95% Confidence Interval for B	
		B	Std. Error	Beta	t	Sig.	
1	(Constant)	3.607	0.070		51.720	0.000	3.470 3.745
	Statement	-0.007	0.100	-0.005	-0.074	0.941	-0.205 0.190

a. Dependent Variable: Brand attitude

### Pathway 2

Model Summary <sup>b</sup>					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0.013 <sup>a</sup>	0.000	-0.004	0.76932	2.119

a. Predictors: (Constant), Statement / b. Dependent Variable: Advertising credibility

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	0.025	1	0.025	0.041	0.839 <sup>b</sup>
	Residual	152.700	258	0.592		
	Total	152.725	259			

a. Dependent Variable: Advertising credibility / b. Predictors: (Constant), Statement

Coefficients <sup>a</sup>							
Model		Unstandardized Coefficients		Standardized Coefficients		95% Confidence Interval for B	
		B	Std. Error	Beta	t	Sig.	Lower Bound Upper Bound
1	(Constant)	2.735	0.066		41.160	0.000	2.605 2.866
	Statement	-0.019	0.095	-0.013	-0.204	0.839	-0.207 0.169

a. Dependent Variable: Advertising credibility

### Pathway 3

Model Summary <sup>b</sup>					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0.392 <sup>a</sup>	0.154	0.151	0.71694	2.064

a. Dependent Variable: Brand attitude / b. Predictors: (Constant), Advertising credibility

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	23.957	1	23.957	46.609	0.000 <sup>b</sup>
	Residual	131.583	256	0.514		
	Total	155.540	257			

a. Dependent Variable: Brand attitude / b. Predictors: (Constant), Advertising credibility

Coefficients <sup>a</sup>							
Model	Unstandardized Coefficients		Standardized Coefficients		Sig.	95% Confidence Interval for B	
	B	Std. Error	Beta	t		Lower Bound	Upper Bound
1 (Constant)	2.542	0.165		15.448	0.000	2.218	2.866
Advertising credibility	0.397	0.058	0.392	6.827	0.000	0.283	0.512
a. Dependent Variable: Brand attitude							

#### Pathway 4

Model Summary <sup>b</sup>					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0.392 <sup>a</sup>	0.154	0.147	0.71834	2.064
a. Dependent Variable: Brand attitude / b. Predictors: (Constant), Statement, Advertising credibility					

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	23.957	2	11.979	23.214	0.000 <sup>b</sup>
	Residual	131.583	255	0.516		
	Total	155.540	257			
a. Dependent Variable: Brand attitude / b. Predictors: (Constant), Statement, Advertising credibility						

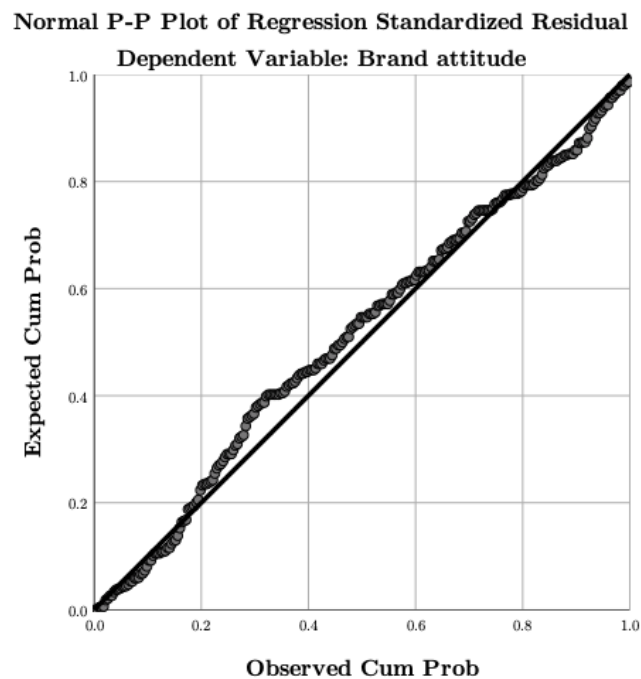
Coefficients <sup>a</sup>							
Model	Unstandardized Coefficients		Standardized Coefficients		Sig.	95% Confidence Interval for B	
	B	Std. Error	Beta	t		Lower Bound	Upper Bound
1 (Constant)	2.541	0.171		14.861	0.000	2.20	2.877
Advertising credibility	0.397	0.058	0.392	6.814	0.000	0.283	0.512
Statement	0.002	0.089	0.002	0.028	0.978	-0.174	0.179
a. Dependent Variable: Brand attitude							

Descriptive Statistics			
	Mean	Std. Deviation	N
Brand attitude	3.6233	0.77796	258
Advertising credibility	2.7205	0.76819	258
Statement	0.48	0.501	258

Correlations				
		Brand attitude	Advertising credibility	Statement
Pearson Correlation	Brand attitude	1.000	0.392	-0.003
	Advertising credibility	0.392	1.000	-0.012
	Statement	-0.003	-0.012	1.000
Sig. (1-tailed)	Brand attitude	.	0.000	0.480
	Advertising credibility	0.000	.	0.425
	Statement	0.480	0.425	.
N	Brand attitude	258	258	258
	Advertising credibility	258	258	258
	Statement	258	258	258

Collinearity Diagnostics <sup>a</sup>						
			Variance Proportions			
Model	Dimension	Eigenvalue	Condition Index	(Constant)	Advertising credibility	Statement
1	1	2.559	1.000	0.01	0.01	0.06
	2	0.404	2.516	0.02	0.03	0.92
	3	0.037	8.356	0.97	0.96	0.02

a. Dependent Variable: Brand attitude



## PROCESS

Run MATRIX procedure:

\*\*\*\*\* PROCESS Procedure for SPSS Version 3.4.1 \*\*\*\*\*

Written by Andrew F. Hayes, Ph.D. [www.afhayes.com](http://www.afhayes.com)  
Documentation available in Hayes (2018). [www.guilford.com/p/hayes3](http://www.guilford.com/p/hayes3)

\*\*\*\*\*

Model: 4

Y : Brand\_at  
X : Statement  
M : Advertis

Sample

Size: 258

\*\*\*\*\*

OUTCOME VARIABLE:

Advertis

Model Summary

R	R-sq	MSE	F	df1	df2	p
,0119	,0001	,5923	,0361	1,0000	256,0000	,8495

Model

	coeff	se	t	p	LLCI	ULCI
constant	2,7293	,0667	40,8975	,0000	2,5979	2,8607
Statement	-,0182	,0959	-,1900	,8495	-,2070	,1706

Standardized coefficients

coeff  
Statement -,0237

Covariance matrix of regression parameter estimates:

	constant	Statement
constant	,0045	-,0045
Statement	-,0045	,0092

\*\*\*\*\*

OUTCOME VARIABLE:

Brand\_at

Model Summary

R	R-sq	MSE	F	df1	df2	p
,3925	,1540	,5160	23,2140	2,0000	255,0000	,0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	2,5407	,1710	14,8613	,0000	2,2041	2,8774
Statement	,0025	,0895	,0277	,9780	-,1738	,1787
Advertis	,3975	,0583	6,8136	,0000	,2826	,5123

Standardized coefficients

coeff  
Statement ,0032  
Advertis ,3925

Covariance matrix of regression parameter estimates:

	constant	Statement	Advertis
constant	,0292	-,0040	-,0093
Statement	-,0040	,0080	,0001
Advertis	-,0093	,0001	,0034

\*\*\*\*\* TOTAL EFFECT MODEL \*\*\*\*\*

OUTCOME VARIABLE:

Brand\_at

Model Summary

R	R-sq	MSE	F	df1	df2	p
,0031	,0000	,6076	,0024	1,0000	256,0000	,9609

Model

	coeff	se	t	p	LLCI	ULCI
constant	3,6256	,0676	53,6416	,0000	3,4925	3,7587
Statement	-,0048	,0971	-,0491	,9609	-,1960	,1865

Standardized coefficients

	coeff
Statement	-,0061

Covariance matrix of regression parameter estimates:

	constant	Statement
constant	,0046	-,0046
Statement	-,0046	,0094

\*\*\*\*\* TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y \*\*\*\*\*

Total effect of X on Y

Effect	se	t	p	LLCI	ULCI	c_ps
-,0048	,0971	-,0491	,9609	-,1960	,1865	-,0061

Direct effect of X on Y

Effect	se	t	p	LLCI	ULCI	c'_ps
,0025	,0895	,0277	,9780	-,1738	,1787	,0032

Indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
Advertis	-,0072	,0383	-,0794	,0693

Partially standardized indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
Advertis	-,0093	,0489	-,1045	,0878

\*\*\*\*\* ANALYSIS NOTES AND ERRORS \*\*\*\*\*

Level of confidence for all confidence intervals in output:

95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:

1000

NOTE: Standardized coefficients for dichotomous or multicategorical X are in partially standardized form.

NOTE: Variables names longer than eight characters can produce incorrect output.

Shorter variable names are recommended.

----- END MATRIX -----



## **E: Survey**

**Q1.1** Dear participant, thank you for taking part in this survey on advertising. This study is part of the Master Thesis of Willibrord Grinwis and is not related to any other party. The goal of this research is to get a better understanding of different forms of advertising. During this survey you will be asked to answer questions about an advertisement. It is important that you read each item carefully and answer truthfully. Please do finish the questionnaire, otherwise, the results will be useless. Please keep in mind that there are no right or wrong answers and all your answers are anonymous. The procedure involves filling in an online survey that will take approximately 5 minutes.

**Q2.1** The following questions are about an advertisement from Wigr fly, this is a fictional airline. The advertisement will be shown on the next screen. But first, you will find the mission statement of Wigr fly. Please, take your time to read this mission statement and afterwards carefully read the advertisement.

**Q3.1** Mission Statement: Wigr fly strives for profitable growth in the most green way. The growth contributes to its own corporate objectives and to greater economic and social development.

**Q3.2** The advertisement



**Q3.3** Timing

First Click (1)

Last Click (2)

Page Submit (3)

Click Count (4)

**Q4.1** Mission statement: Wigr fly strives for profitable growth in the most green way. The growth contributes to its own corporate objectives and to greater economic and social development.

**Q4.2** The advertisement



**Q4.3** Timing

First Click (1)

Last Click (2)

Page Submit (3)

Click Count (4)

**Q5.1** Mission statement: Wigr fly strives for profitable growth. The growth contributes to its own corporate objectives and to greater economic and social development.

**Q5.2** The advertisement



**Q5.3** Timing

First Click (1)

Last Click (2)

Page Submit (3)

Click Count (4)

**Q6.1** Mission statement: Wigr fly strives for profitable growth. The growth contributes to its own corporate objectives and to greater economic and social development.

**Q6.2** The advertisement



**Q6.3** Timing

First Click (1)

Last Click (2)

Page Submit (3)

Click Count (4)

**Q7.1** Please indicate for each set of words which word best describes your thoughts about the brand Wigr Fly.

	(1)	(2)	(3)	(4)	(5)	
Bad	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Good
Unappealing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Appealing
Unpleasant	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Pleasant
Unfavourable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Favourable
Unlikable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Likeable

**Q8.1** On a scale from 1 - 5, to what extent do you agree or disagree with the following statements?

	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree
We can depend on getting the truth in this advertisement.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This advertisement aims to inform the consumer.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I believe this advertisement is informative.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This advertisement is generally truthful.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This advertisement is a reliable source of information about the quality and performance of products.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This advertisement is truth well told.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In general, this advertisement presents a true picture of the product being advertised.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel I've been accurately informed after viewing this advertisement.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This advertisement provides the consumer with essential information.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Q9.1** The mission statement of Wigr fly is green in the essence to reduce the impact on the environment

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Q10.1** What is your gender?

- ☐ Male
- ☐ Female

**Q10.2** What is your age?

- ☐ Under 18
- ☐ 18-24
- ☐ 25-34
- ☐ 35-44
- ☐ 45-54
- ☐ 55-64
- ☐ 65 or older

**Q10.3** What is your nationality?

- ☐ Dutch
- ☐ Other

**Q10.4** Are you currently living in the Netherlands or have you ever lived in the Netherlands?

☐ Yes

☐ No

**Q10.5** Where do you live?

☐ City

☐ Suburban

☐ village

☐ Country-side

**Q10.6** What is your highest completed level of education? If you are currently studying, please select your current level of education.

☐ Secondary School

☐ mbo

☐ hbo

☐ University bachelor

☐ University master

☐ I prefer not to say

**Q10.7** You have reached the end of this survey. Thank you for taking the time to complete this survey! If you have any questions regarding the survey or any other questions, please do not hesitate to ask. 482318wg@eur.nl. Finish this survey by clicking to the next page