### How Greenwashing influences Customer Trust and Purchase intentions – a quantitative research study

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#### ABSTRACT,

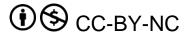
Sustainability has become an important topic in the recent years which leads to green advertising strategies of organization and the adoption of quality marks that show the eco-friendliness of an organization, but not every organization which promotes to be green and sustainable, actually is sustainable and green. This phenomenon is called greenwashing. Organizations make use of fake quality marks to show their sustainable work. This study aims to analyze the consequences of a greenwashing scandal on trust and on purchase intentions. Trust is a key factor in every customerorganization relationship, especially for green products. Customers cannot prove whether the product is organic or not, they have to trust the organization that the product is organic. Purchase intentions are a good predictor for actual purchase behavior and therefore, used a substitute measure. The theory of planned behavior builds the theoretical background of this study to explain the relations between the variables. A survey of 62 participants have been conducted to test three hypotheses related to greenwashing, trust and purchase intentions. The analysis shows that trust has a significant relationship toward customer purchase intention and that greenwashing has a significant effect on trust, whereas greenwashing has no significant impact on customer purchase intention. If greenwashing has consequences on trust and purchase intentions, greenwashing by the organization is detected and customers are aware of greenwashing.

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#### Keywords

trust, purchase intentions, greenwashing, sustainability, corporate scandal, consequences, customers, theory of planned behavior

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#### **1. INTRODUCTION**

Greenwashing is defined as the use of fake quality marks by an organization to show their sustainable work (Delmas, & Burbano, 2011). These fake quality marks can be very different, from quality marks which show that the organization performs animal friendly, to quality marks which show that a special ingredient, e.g. BPA is not included in the products, but they all feign eco-friendliness (Marquis et al., 2016). Greenwashing can be used by every organization and is also used by organizations that are operating globally and have a good standing in the market, e.g. Volkswagen and BP (Greenpeace, 2010; Majlath, 2016; Kassinis, & Panaviotou, 2018). The reasons why organizations establish fake quality marks can be very different as well (Delmas, & Burbano, 2011). The customers of a brand or a product are misleaded to buy a specific product or a product of a specific brand (Marquis et al., 2016). Since sustainability became a more recent topic over the last years (Marquis et al., 2016) and people tend more to buy sustainable products and pay a bit more for these than to buy unsustainable products for a cheaper price, greenwashing seems more attractive for organizations. If greenwashing by an organization is detected, the outcome is the same, regardless of the reasons. If the organization is a global player, a crisis is hardly averted. People feel cheated since the quality marks used promise something (Guo et al., 2017), e.g. that the organization is acting eco-friendly and respects the environment, but this is not the case in reality.

The intention to purchase a product is influenced by the customers trust in an organization (Lin et al., 2015; Vassilikopoulou et al., 2018; Mainardes, & Cardoso, 2019). Thereby, trust acts as a substitute for incomplete information which exists in a customer-organization relationship (Lin et al., 2015) and is a key factor for customers purchase intention (Carfora et al., 2019). Customers purchase products that are sustainable because they trust the company tells the truth about the products (Geyskens et al., 1998) and sells products that are as sustainable as promoted. The Theory of Planned Behavior by Ajzen (1991) is an advanced model of the Theory of Reasoned Action and has the intention to perform a behavior as key variable (Akbari et al., 2018). The theory can be applied to purchase intentions. According to the theory of planned behavior, (purchase) intention is influenced by three variables, the attitude toward a behavior, the subjective norm and the perceived behavioral control (Ajzen, 1991). The attitude toward the behavior is "the degree to which a person has a favorable or unfavorable evaluation or appraisal of the behavior" (Ajzen, 1991, p.188), whereas the subjective norm is the social pressure through others like the family or friends (Ajzen, 1991). The perceived behavioral control is the perceived ability to perform the behavior which also takes into account the possible difficulties that come with performing the behavior (Ajzen, 1991). Several antecedents are influencing trust and can be used to explain why trust influences purchase intention and greenwashing influences trust. These are among others, the benevolence of the other person or organization (Ganesan, & Hess, 1997; Geyskens et al., 1998), the perceived competence of an organization (McKnight et al., 1998; Zhong et al., 2014) and the common values a customer thinks he has with an organization (Hurley et al., 2013). These antecedents, and thereby, trust, are assumed to be able to positively or negatively influence the attitude toward the behavior, the subjective norm and perceived behavioral control. In the case of greenwashing, the organization does not tell the truth about its products. The organization tells the customers that the products are eco-friendlier than they in reality are. Furthermore, an organization which uses greenwashing to deceive its customers, violate each of the antecedents of trust. If greenwashing is detected and the customers gets aware of it, the customer realizes this fact and probably a decrease in their level of trust in the organization follows. In addition to that, greenwashing is able to decrease not just the customers trust, but also the purchase intentions of customers since the customers realize that they were deceived by the organization (Kahraman, & Kazancoglu, 2019) and through the loss in trust. It is assumed that the loss in trust and the greenwashing have negative effects on the attitude toward the behavior, the subjective norm and the perceived behavioral control of the theory of planned behavior.

Managers and thereby, organizations probably know about the consequences or have a suspicion how the consequences will be, but there is not sufficient research on the influence of greenwashing on trust and purchase intentions. As an example, Kahraman and Kazancoglu (2019) mention that "there is a gap for deeply understanding consumer greenwashing perception and their effects on purchase intentions toward products that claim to be natural" (Kahraman, & Kazancoglu, 2019, p.2). Furthermore, organizations may tend to belief that the consequences, especially the possible change in the purchase intentions of customers, will not be the same, will not be as serious as those other organizations had to face in the past.

The consequences of greenwashing upon customer trust and on the purchase intentions of customers should be analyzed and described in a sufficient way. This should happen for different industries and different organizations and with control for different demographic variables (e.g. age, gender, education) to be able to generalize the findings (Nyilasy et al., 2014; Chen et al., 2019; Gupta et al., 2019; Kahraman, & Kazancoglu, 2019). An organization should know about the consequences before applying fake quality marks to their brands or products.

The purpose of this study is to analyze the impact of a greenwashing scandal on trust and on purchase intentions of customers on a specific case. Therefore, this study addresses the following research question:

## Which effect has a greenwashing scandal in terms of trust on the purchase intentions of customers?

To answer this research question, the following section describes the theoretical background of the study. The theoretical background builds the framework for three hypotheses which will be introduced in the next section as well and will be presented in the research model of this study. The third chapter describes the research design and the methods that have been used for the different dependent, independent and control variables. The next chapter then shows the results of the analysis of the collected data for this study, followed be the discussion of these results in chapter 5. In chapter 6, a conclusion is drawn based on the theoretical framework and the discussion. The last two sections demonstrate the limitations this study has and the acknowledgements.

#### 2. THEORETICAL FRAMEWORK

# 2.1 Trust influences customer purchase intentions

Many researchers studied the effect trust has on purchase intentions already (e.g. Jarvenpaa et al., 1999; Bhattacherjee, 2000; Vassilikopoulou et al., 2018). They found that customer trust can lead to an increase in customer purchase intention or at least affect purchase intention (Macintosh, & Lockshin, 1997; Jarvenpaa et al., 1999; Bhattacherjee, 2000; Yoon, 2002; Pavlou, 2003; Vassilikopoulou et al., 2018) and that a lack in trust or a loss in trust can lead to a drop in the purchase intentions of customers. A theory that is often used to explain purchase intention and behavior is the Theory of Planned Behavior by Ajzen (1991). The theory of planned behavior describes that a person first has the intention to show a specific behavior, before he or she fulfill the action (Ajzen, 1991; Carfora et al., 2019). According to the theory of planned behavior, the intention is influenced by attitude, subjective norm and perceived behavioral control (Ajzen, 1991; Carfora et al., 2019). Thereby, the subjective norm is the "perceived social pressure to perform or not perform the behavior" (Ajzen, 1991, p.188) which also includes the assessments of the behavior by others like the family or friends (Ajzen, 1991; Carfora et al., 2019). The perceived behavioral control is the perceived ability to fulfill the action and show the behavior (Ajzen, 1991; Carfora et al., 2019). Attitude is the persons evaluation of the action, whether the consequences will be positive or negative (Ajzen, 1991, Carfora et al., 2019). If the consequences will tend to be positive, the person has a positive attitude toward the behavior, but if the consequences will tend to be negative, the person has a negative attitude toward the behavior. Positive consequences mean that the desired outcome will be reached and negative consequences that it will not be reached. Whereas subjective norm and attitude just have a direct influence on intention, perceived behavioral control also has an influence on behavior. Figure 1 shows the construct of the theory of planned behavior by Ajzen (1991).

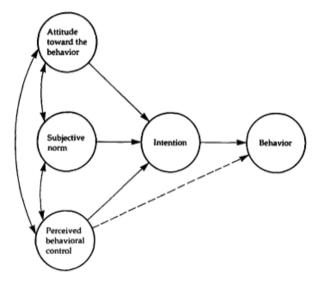


Figure 1. The theory of planned behavior by Ajzen (1991)

Especially for organic products, trust is a key factor for purchase intentions and decisions since the customer cannot test and definitely say whether the product is organic or not organic (Carfora et al., 2019). The customer has to trust the seller or the institution, which proves the processes the product goes through, that the product is organic (Carfora et al., 2019). In the case of organic food or products, information asymmetry between the seller (the organization) and the customer exists (Janssen, & Hamm, 2014; Nuttavuthisit, & Thogersen, 2017; Garcia, & Teixeira, 2017; Carfora et al., 2019), which means the seller has all information about the product and the process and the customer has just the information the seller gives him. If information asymmetry exists and the customer has not all information available to prove the quality of the product and processes, trust is a substitute for the information which can lead to positive purchase intentions of the customer (Lin et al., 2015).

Trust is a complex and multidimensional construct (McKnight, & Chervany, 2001; Deng et al., 2010; Davies, & Olmedo-Cifuentes, 2016). It can be defined as an expectation of a person

that one can rely on what the other person or organization said or promise and that one can belief in the right intentions of the other party or organization (Ganesan, & Hess, 1997; Rousseau et al., 1998; Jarvenpaa et al, 1999; Geyskens et al., 2016). Trust is a substantial factor in the relationship between customer and organization (Mayer et al., 1995; Jarvenpaa et al., 1999; Davies, & Olmedo-Cifuentes, 2016), especially if the customer has possible negative consequences of the organization not fulfilling its promises (Mayer et al., 1995; Jarvenpaa et al., 1999), and is important for an organization to keep its competitive advantage (Roy et al., 2017). Trust has been studied by many researchers already (e.g. Mayer et al., 1995; Rousseau et al., 1998; Jarvenpaa et al., 1999) and some antecedents of trust has been identified. These antecedents of trust are (perceived) honesty (Johnson-George, & Swap, 1982; Geyskens et al., 1998), benevolence (Mayer et al., 1995; Geyskens et al., 1998), credibility (Ganesan, & Hess, 1997), reliability (Johnson-George, & Swap, 1982), competence (McKnight et al., 1998; Zhong et al., 2014), common values (Hurley et al., 2013), aligned interests (Hurley et al., 2013) and showing empathy (Hurley et al., 2013). Based on these antecedents, a customer can decide whether to trust the organization.

Benevolence is the perceived goodwill of the other person or organization that goes beyond a purely profit motive (Rempel et al., 1985), whereas credibility is the perceived ability and intention of the other person or organization to keep its promises (Ganesan, & Hess, 1997). In the context of purchase intentions, credibility is an important antecedent of trust because the customer and the seller, respectively the organization, has asymmetric information available. Since the customer has not full information about the product and process, the organization has to show their intention and ability to keep the promises to create trust and avoid a perception of opportunistic behavior (Ba, & Pavlou, 2002; Mainardes, & Cardoso, 2019). But, not just credibility is important for creating trust and in turn, increasing purchase intentions because of asymmetric information and possible opportunistic behavior. Benevolence is important as well. If an organization can show and convince customers of their benevolence, from the perspective of customers, opportunistic behavior is less likely because the motive of the organization seems not to be to just make profit. Since benevolence and credibility both reduce the fear of opportunistic behavior, they increase the attitude toward the behavior and the perceived behavioral control because the consequence seems to tend to be more positive than before and it seems like the organization has the ability to keep its promise. Common values and aligned interests are especially important in the organic and green product sector for building trust since the customer cannot test whether the product is organic or not organic (Carfora et al., 2019). The customer has to rely on and trust the seller or the institution which certified the processes as organic (Carfora et al., 2019). If a customer has some environmental consciousness and therefore, has common values and aligned interests with an organization that sells environmental-friendly and sustainable products, have a greater intention to purchase these products (Lin et al., 2015). These aligned interests and common values can also lead to a more positive attitude toward the behavior since the customer believes that the organization wants to reach and value the same as he does.

In addition to that, trust is likely to reduce the perceived risk a customer has of a purchase (Jarvenpaa et al., 1999). Trust reduces perceived risk because it reduces the behavioral uncertainty of the seller that a customer expects and gives the customer some perceived behavioral control over the process (Pavlou, 2003). The reduced perceived risk, reduced behavioral uncertainty and the reduced fears of opportunistic behavior through trust (Pavlou,

2003) reduces the fears of a negative outcome of the action and thereby, have a positive effect on the attitude toward the behavior which positively influences the customers purchase intention.

The previous section leads to the following first hypothesis:

H1 Trust positively influences customer purchase intentions

#### 2.2 Greenwashing affects trust

Environmental consciousness is getting an important theme for people (Punyatoya, 2014; Akturan, 2018). This guide organizations to do green advertising, but with the pressure for green advertising, greenwashing is getting more common as well (Nyilasy et al., 2014; Akturan, 2018). A green advertisement is every advertisement that shows the connection between the environment and the product or brand to show the environmental responsibility or wants to lead the customer to a more sustainable lifestyle (Banerjee et al., 1995; Nyilasy et al., 2014). Therefore, greenwashing is misleading the customer about the intentions, sustainability and eco-friendliness of a product or a brand (Delmas, & Burbano, 2011; Marquis et al., 2016). This false advertisement creates doubt in the customers, about the product and maybe about green products in general (Leonidou, & Skarmeas, 2017; Akturan, 2018) if they are aware of the greenwashing. These doubts then are able to cause distrust in the organization, the products and as well green products in general (Chen et al., 2014; Leonidou, & Skarmeas, 2017; Akturan, 2018; Kahraman, & Kazancoglu, 2019). This distrust can have a negative influence on the attitude toward the behavior and on the perceived behavioral control since trust acts as a substitute for incomplete information in a customer-organization relationship (Lin et al., 2015). Furthermore, this distrust can have a negative influence on the attitude toward the behavior because the customer no longer expects to get the sustainable and ecofriendly products he wants to get.

Davies and Olmedo-Cifuentes (2016) define misconduct as "unacceptable and improper behaviour" (Davies, & Olmedo-Cifuentes, 2016, p.1428) which does not necessarily have to be illegal to damage trust. Greenwashing can also be classified as improper behavior since it has the aim to mislead the customer to get a positive result for the organization, namely the customer purchases the product (Marquis et al., 2016). Davies and Olmedo-Cifuentes (2016) identified six types of misconduct. These are bending the law, not telling the truth, not listening to criticism, making mistakes, acting irresponsibly and action unfairly with bending the law being the most damaging and acting unfairly being the least damaging for customer trust (Davies, & Olmedo-Cifuentes, 2016). By using greenwashing, the organization does not tell the truth about itself or its products which is one of the misconducts as defined by Davies and Olmedo-Cifuentes (2016). Furthermore, honesty has been identified as one of the antecedents of trust (Johnson-George, & Swap, 1982; Geyskens et al., 1998). Not telling the truth has been identified as damaging trust and honesty as one of the antecedents of trust which help the customer to decide whether to trust the organization, so its absent could lead to the decision not to trust the organization if the customer notice the greenwashing. This decision then is able to create a negative attitude toward the behavior and a low perceived behavioral control. In addition to that, misleading customers could also be seen as bending the law since the organization is deceiving its customers although it knows better (Marquis et al., 2016; Akturan, 2018), namely that the product is not as sustainable as it is promoted. In the study of Davies and Olmedo-Cifuentes (2016), bending the law has been identified as being the most damaging for trust. If the customer is aware of the organization

using greenwashing and bending the law is the most damaging for trust, it should also have the most negative influence on attitude and perceived behavioral control. Acting unfairly and acting irresponsibly can be assigned to greenwashing as well. Even though acting unfairly seems to be the least damaging for trust, fairness is connected to trust in the relationship between a person and an organization (Davies, & Olmedo-Cifuentes, 2016). Organizations which are hiding information from customers risk losing trust (Davies, & Olmedo-Cifuentes, 2016) if people are aware of it. If the organization that does greenwashing is actually damaging the environment, it can be seen as acting irresponsibly and the integrity of the organization can be questioned which leads to a loss in trust (Davies, & Olmedo-Cifuentes, 2016).

In addition to the misconducts which can be assigned to greenwashing, greenwashing also infringe some of the antecedents of trust and thereby, through the loss in trust, can have a negative impact on the attitude toward the behavior and the perceived behavioral control. Honesty has already been referred to, but also the other antecedents of trust are infringed by greenwashing. Credibility as the perceived intention and ability to deliver what has been promised (Ganesan, & Hess, 1997) is negatively affected by greenwashing (Akturan, 2018) because the organization misleaded its customers about the sustainability of the products and brand (Marquis et al., 2018) and thereby, shows no intention to deliver a product that is as sustainable as promoted. The ability of the organization to do so, can also be called into question since the organization had to deceive its customers instead of offering a product as advertised which infringed the competence of the organization. Benevolence is infringed out of the same reasons as credibility, the organization misleaded the customer to make them buy the product. Therefore, the organization showed no goodwill, but a profit motive. Credibility and benevolence have been identified as antecedents of trust which can create trust and thereby, have a positive influence on the attitude toward the behavior and the perceived behavioral control. But if customers are aware of greenwashing, the credibility and benevolence of the organization are called into question, which then can have instead of a positive attitude toward the behavior, a negative attitude toward the behavior and also a low perceived behavioral control because the customer has to fear opportunistic behavior. The reliability of the organization as one of the antecedents of trust can also be assumed as damaged since customers cannot rely on and belief what the organization promised. Furthermore, an organization which implemented greenwashing as a green advertising strategy, lead customers that have some environmental consciousness to believe that they have common values and aligned interests, but actually this is not the case since the organization just pretend to care about the environment. If greenwashing by the organization is detected and customers are aware of it, the customers realize that they have no common values and aligned interests which then can lead to the decision not to trust the organization. Showing empathy as the last antecedent of trust can also be damaged by greenwashing. The organization pretend to show empathy for the environment or for animals as an example, but in fact their products and thereby, the organization itself, does not do something for the environment or animals or even damage them. Through a greenwashing scandal, the customer gets aware of this and trust decreases (Akturan, 2018).

Applied to the theory of planned behavior by Ajzen (1991), the negative effect of greenwashing on trust, has a negative impact on the attitude toward the behavior and the perceived behavioral control which then have a negative influence on the intention, in this case the customers purchase intention. In general, greenwashing can just damage trust if people know about the greenwashing which means that they are aware of it.

The previous discussion about greenwashing influencing trust leads to the following hypothesis:

H2 If people are aware of a greenwashing scandal, greenwashing has a negative effect on trust

# **2.3** Greenwashing affects customer purchase intentions

According to the theory of planned behavior, intentions are influenced by the attitude toward the behavior, the subjective norm and the perceived behavioral control (Ajzen, 1991). Organizations implement greenwashing to create positive attitudes of customers toward the organization which then lead to the intention to purchase the products of the organization (Nyilasy et al., 2014). Though, if greenwashing is detected, it creates perceived risk for customers (Vassilikopoulou et al., 2018; Kahraman, & Kazancoglu, 2019). Perceived risk has the opposite effect of the intention the organization had, it lets the customer think that the consequences of their behavior are uncertain and can be negative (Kahraman, & Kazancoglu, 2019). This thought leads to a negative attitude toward the behavior in the model of the theory of planned behavior and as a result, to reduced intentions to purchase products of the organization (Kahraman, & Kazancoglu, 2019).

Furthermore, greenwashing creates doubts about green products in customers (Leonidou, & Skarmeas, 2017; Akturan, 2018) if customers are aware of it, which can have negative consequences for the attitude toward the behavior and the perceived behavioral control, but it can also have an effect on the subjective norms. Since greenwashing in advertisement is seen by many people, it is able to create doubts in many people as well if they are aware of the greenwashing, which then can lead to a social pressure on customers not to perform the behavior, not to purchase the product. Also, the misconducts as mentioned in the previous section can lead to such a social pressure if people are aware of greenwashing by an organization. The negative effect on the subjective norms have a negative influence on the purchase intention of customers (Ajzen, 1991).

Nevertheless, some researchers suggest that greenwashing has an indirect effect on consumer purchase intention through its negative influence on customer trust (Akturan, 2018; Vassilikopoulou et al., 2018).

Greenwashing has an effect on purchase intentions, which leads to the following hypothesis:

H3 If people are aware of a greenwashing scandal, greenwashing negatively affects customer purchase intentions

#### 2.4 Hypotheses and research model

In the previous sections, the theoretical framework has been built. The three variables of this study have been conceptualized and the relationship between them has been discussed and explained. Three hypotheses evolved from this conceptualization and discussion. These are (1) trust positively influences customer purchase intentions, and if people are aware of a greenwashing scandal, (2) greenwashing has a negative effect on trust and (3) greenwashing negatively affects customer purchase intentions. The research model in Figure 2 shows the three variables and the hypotheses that has been built around them. It guides the empirical research of this study.

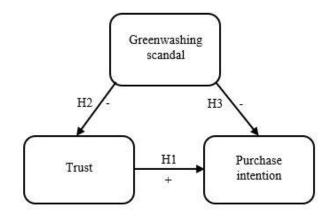


Figure 2. Research model

#### 3. METHODOLOGY

#### 3.1 Sample

In order to answer the research hypothesis of this quantitative research study, an online survey was conducted for the primary data collection. The tool online survey was chosen to reach many respondents from different demographic levels in a short time frame.

Two fictive cases were presented to the respondents. The first case describes a fictive organization which has the goal to be sustainable and sell organic products (Appendix A). The second case describes the same fictive organization but a greenwashing scandal of this organization (Appendix B). The two cases were chosen to be fictive cases of a fictive organization and not real cases or cases of a real organization to ensure respondents answer unaffected by media. The aim of this study was to get honest answers which reflect the true opinion of the respondents that is unaffected by media, even though a fictive case and fictive organization cannot offer veritable conditions (e.g. prior image of the organization in which the respondents know the organization already and have an opinion about it.

After each of the two cases, the same set of questions were asked. These set of questions include questions about trust, questions about purchase intentions and some control questions. The questions were adopted from the research of Jarvenpaa et al. (1999) and Vassilikopoulou et al. (2018), adjusted to the research that they fit to the organization presented in the cases and supplemented by questions of Mayer and Davis (1999) and McAllister (1995). The questions of Mayer and Davis (1999) and McAllister (1995) were adjusted to the research by reformulating the question to bring them to the level of a customer-organization relationship. The questions can be seen in Appendix C.

For the measuring of the questions about trust and purchase intentions, a 7-point scale from strongly disagree (1) to strongly agree (7) were chosen. Only the start-, middle- and endpoint had expressions, namely strongly disagree, neutral and strongly agree. The other points were unlabeled. The respondents just could have chosen the whole numbers, no decimals in between. The control questions had individual answer options which fit to the specific question.

In total, data from 62 participants were collected. The selection of participants was by chance and not limited by other factors than the minimum age of 16 years. 16 years was chosen as the minimum age since this is the age at which a participant does not need the consent of the parents anymore to participate in a study and can make own choices. The fictive organization were chosen

Variable	Item	Question	Loading
Trust	1	BIOproducts is trustworthy	.7274
	2	BIOproducts wants to be known as one who keeps promises and commitments	.3711
	3	BIOproducts is honest in describing its products	.8732
	4	I trust BIOproducts keeps my best interests in mind	.9146
	5	I find it necessary to be cautious with BIOproducts	
	6	BIOproducts has more to lose than to gain by not delivering on their promises	
	7	BIOproducts has a strong sense of justice	.3695
	8	BIOproducts behavior meets my expectations	.7233
	9	BIOproducts could not care less about servicing a person from my country	
	10	BIOproducts actions and behaviors are not very consistent	
	11	BIOproducts tries hard to be fair in dealing with others	.6971
	12	BIOproducts performance should be monitored more closely	
Purchase	13	The next time I desire a (sustainable) product, I intend to use BIOproducts	.3472
Intention	14	I would continue buying products from BIOproducts	
	15	The next time I purchase a (sustainable) product, I will not prefer BIOproducts	.6248

#### Table 1. Factor analysis

to be an organization which produces several products and does not need further limitations in the selection of participants. The survey was available in English and German to be able to reach more people from different demographic levels.

Before the start of the study, the respondents were informed about the topic of the research being the influence of trust on buying behavior. The information about the greenwashing scandal was withhold to not affect the participants answers. If the participants were informed about the greenwashing scandal, their answers could be influenced in the direction that the first set of questions should be answered with high points and the second set of questions should be answered lower. The respondents were debriefed at the end of the survey.

To test the questions and the reliability of the new scale, the questions were analyzed with a factor analysis to prove whether the items really test the variable they should test and subsequently, after the exclusion of the items that do not load on the variables, Cronbach's Alpha were calculated.

#### 3.2 Dependent variable

The dependent variable of the study is purchase intention. Before the analysis, the scale of question 15 has to be reversed because the question ways formulated with a negotiation and therefore, the scale has to be seen as 7, which is normally the best a respondent can choose, is for this question the worst a respondent can choose. To achieve that the question also measures the construct with the same scale as the other questions from 1 to 7 with 1 being strongly disagree and 7 being strongly agree, the scale for these questions had to be conversed. The questions for purchase intention are adopted from Jarvenpaa et al. (1999) and Vassilikopoulou et al. (2016) and adjusted to fit the organization presented to the participants.

The first step of analyzing the data was to do a factor analysis to check whether all three questions measure purchase intention or not. The result of the factor analysis was that question 14 is not loading on purchase intention appropriately (Table 1). This question has a correlation with purchase intention lower than .3 and therefore, is excluded from the further analysis.

Afterwards, Cronbach's Alpha were calculated for question 13 and 15 to test the reliability of the new scale for purchase intention. The result of the reliability analysis was .636 (Table 2).

Table 2. Cronbach's Alpha purchase intention

Variable	Cronbach's Alpha	N of Items
Purchase Intention	.636	2

#### **3.3 Independent variables**

The independent variables of this study are trust and greenwashing. Greenwashing is the treatment in this study and therefore, no questions are asked to measure it. Greenwashing is just included in the second case presented to the participants in the online survey. The further analysis including the factoranalysis and Cronbach's Alpha is the analysis of the independent variable trust.

As a first step, the scale of four items which measure trust had to be reversed. Questions 5, 9, 10 and 12 are formulated negatively and thereby, the scale measures the item the other way around. The questions for trust are adopted from Jarvenpaa et al. (1999) and Vassilikopoulou et al. (2016) and also adjusted to fit the organization presented to the participants in the two cases. Furthermore, five questions were added to the set of question from the research of Mayer and Davis (1999) and McAllister (1995). These five questions had to be adjusted to the level of a customer-organization relationship.

The next step of analyzing trust was to do a factor analysis as well. The factor analysis measures whether the questions are loading on trust. Questions with a correlation below 0.3 count as not measuring the variable. The factor analysis for trust is an important step since the items which should measure trust are

combined from three different established scales and had to be adjusted to the study as mentioned in a previous section. Five out of twelve items that were added to the construct to measure trust are not loading on trust (Table 1). Just two of these five items are added from the two additional established scales and are excluded from the further data analysis.

As reliability test for the new scale excluding the five items which are not loading on trust, Cronbach's Alpha were calculated and is .863 for trust (Table 3). This means that the new scale for trust can be seen as reliable since Cronbach's Alpha is higher than .7.

Table 3. Cronbach's Alpha trust

Variable	Cronbach's Alpha	N of Items	
Trust	.863	7	

Some of the antecedents of trust and one of the corporate misconducts are also included in the survey. The antecedents which are included are honesty and benevolence, the possible corporate misconduct that is included is fairness. The mean of honesty decreased from 5.0 (SD = 1.3) to 2.1 (SD = 1.5) after the respondents were aware of the greenwashing through the greenwashing scandal presented in the second case. The mean of benevolence decreased as well, from 4.7 (SD = 1.5) to 2.4 (SD = 1.5). This demonstrates that the participants lost trust in the organization. Fairness has been identified as one of the corporate misconducts which are able to damage trust if the organization shows no fairness. Fairness is also included as item in the survey and the mean of fairness decreases from 5.2 (SD = 1.2) after the first case if people are not aware of greenwashing to 2.1 (SD = 1.4) after the greenwashing scandal. This indicates that the respondents are not longer convinced from the fairness of the organization and then, fairness is able to damage trust.

#### **3.4** Control variables

Davies and Olmedo-Cifuentes (2016) identified further factors that can influence trust and thereby, influence purchase intentions. These factors cannot be influenced by the organization, they are given. The factors which has been identified are gender, personality and age. Gender is expected to affect trust in a way that women trust more, but if trust is damaged, men are more likely to be forgiving and rebuild trust (Davies, & Olmedo-Cifuentes, 2016). In addition to the gender effect, older people are expected to have a higher level of trust because of their greater experience (Sutter, & Kocher, 2007; Davies, & Olmedo-Cifuentes, 2016). Personality can also affect trust since "trusting is not necessarily a wholly rational process" (Davies, & Olmedo-Cifuentes, 2016, p.1431), and some characteristics of the personality, e.g. the agreeableness, could influence the persons level of trust (Davies, & Olmedo-Cifuentes, 2016). The personality is included as environmental consciousness, respectively importance of sustainability, in this study since this is an aspect of personality that fits this study about greenwashing. Furthermore, political orientation has been added to the controls. The respondents had a minimum age of 16 years and a maximum age of 59 with a mean age of 35 years. Furthermore, 91.9% of the respondents were German, whereas just 1.6% were Dutch and 6.5% had another nationality than German or Dutch. Just 30.6% of the respondents were male and 69.4% were female. For 88.7% of the participants, sustainability is definitely or probably important. For none of the participants, sustainability is definitely not important. 66.2% of the respondents classified itself politically more on the left side than on the right side.

#### 3.5 Empirical strategy

As theoretical background, the theory of planned behavior is used. Nonetheless, the theory of planned behavior is no component of the data analysis and will be used again in the discussion to interpret the results of the analysis.

The further analysis of the data includes Structural Equation Modelling and a paired t-test. Structural equation modelling was conducted to test the relationships between trust and purchase intention, greenwashing and trust and greenwashing and purchase intention. For the calculation of this analysis, it was assumed that two groups of 62 respondents participated in the study to be able to create a dummy variable for greenwashing. In this dummy variable, greenwashing is 0 for the measures of trust and purchase intention before the greenwashing scandal and greenwashing is 1 for the measures of trust and purchase intention after the greenwashing scandal. As a supplementary analysis and a robustness check, a paired t-test was computed to test the differences in the answers of the questions which measure trust and purchase intention after the first case and after the second case.

#### 4. RESULTS

As main analysis to test the hypotheses of this study, structural equation modelling has been used (Figure 3). The results were that greenwashing has a significant influence on trust at the .001 level (p = \*\*\*), but not on purchase intention (p = .52). Therefore, through the structural equation modelling, hypothesis 3 has been falsified, whereas hypothesis 2 got approval. Furthermore, the structural equation modelling shows that trust has a significant effect on purchase intention (p = \*\*\*) and thereby, verified hypothesis 1. The structural equation modelling also showed that the relative contribution to trust is about -.80, whereas its relative contribution to purchase intention is just -.06 which also explains the non-significant effect of greenwashing on purchase intention. The relative contribution of trust on purchase intention is .74 which means that trust explains 74% of the customers purchase intentions.

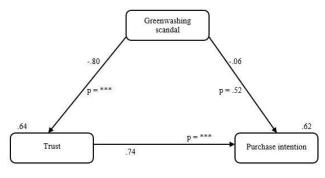


Figure 3. Structural equation modelling

#### 4.1 Supplementary analysis

A paired t-test for trust and a paired t-test for purchase intention were computed as a supplementary analysis and a robustness check of the previous analysis. Table 4 shows the results of the paired t-test for trust. Trust after the first case and before the greenwashing scandal has a mean of 5.1 (SD = .94), demonstrating that most of the participants think they can trust the organization after reading the introduction about the organization in the first case. After the second case and thereby, after the greenwashing scandal, the mean of trust decreases to 2.6 (SD = .98) which shows that most of the participants would not trust the organization anymore after they were aware of the greenwashing by the organization through reading about the greenwashing scandal in the second case presented to them. The difference in the mean before trust before and trust after the greenwashing scandal is 2.6 (SD = 1.4). This decrease in the mean supports hypothesis 2 that greenwashing has a negative effect on trust if people are aware of it since the mean decreases after the participants of the study read about the greenwashing scandal and thereby, were aware of the greenwashing by the organization. In addition to that, the significance level supports the hypothesis as well since the interaction between trust before and trust after the greenwashing scandal shows a significance level of p = .00.

#### Table 4. Paired t-test trust

Variable	Mean	SD	t	df	p
Trust 1	5.1	.94			
Trust 2	2.6	.98			
	2.6	1.4	14.7	59	.00

The paired t-test for purchase intention show similar results (Table 5). The respondents purchase intention before the greenwashing scandal have a mean of 4.5 (SD = 1.2) which demonstrate that the respondents would tend to purchase a product of the organization. The purchase intention after the greenwashing scandal has a mean of 2.3 (SD = 1.3), demonstrating that the participants of the study would more tend to not purchase a product of the organization than to purchase a product of the organization after they were aware of the greenwashing by the organization and a decrease in the mean if 2.2 (SD = 1.8). The purchase intention of the participants decreased after they were aware of the greenwashing by the organization through reading the second case about the greenwashing scandal. This decrease and the significant interaction (p = .00) demonstrate that hypothesis 3, that greenwashing has a negative influence on purchase intention, seems to be accepted.

#### Table 5. Paired t-test purchase intention

Variable	Mean	SD	t	df	p
Purchase intention 1	4.5	1.2			
Purchase intention 2	2.3	1.3			
	2.2	1.8	9.4	61	.00

#### 5. DISCUSSION

The aim of this study was to analyze the impact of greenwashing on customer trust and purchase intention. Trust is a critical factor for customer-organization relationships since the customer has not all information the organization has and therefore, has to fear opportunistic behavior by the organization, especially if the customer wants to purchase a product from the organization (Lin et al., 2015; Carfora et al., 2019). Trust is able to fill the information gap and reduce the fear of opportunistic behavior. This reduction in the fear of opportunistic behavior can have a positive effect on the purchase intention (Lin et al., 2015). Purchase intentions are a good predictor of actual purchase behavior and therefore, is often used a substitute measure for purchase behavior (Roy et al., 2017). Purchase intention is an important consequence of greenwashing that has to be analyzed since this is what the organization notices in its sales reports.

It was hypothesized that trust positively influences customer purchase intentions. This hypothesis has been confirmed through the analysis. This result is also compliant with the findings of other researchers which studied the relationship between trust and purchase intention (e.g. Jarvenpaa et al., 1999; Bhattacherjee, 2000; Yoon, 2002; Pavlou, 2003; Vassilikopoulou et al., 2018). Vassilikopoulou et al. (2018) studied the effect of different variables, one of them trust, on the intention to buy during a crisis. They hypothesized a positive influence of trust on the intention to buy and found support for their hypothesis in the results of their analysis. In addition, also Jarvenpaa et al. (1999), Bhattacherjee (2000), Yoon (2002) and Pavlou (2003) found a significant impact of trust on the intention to purchase.

The theory of planned behavior has not been tested in this study explicitly but it builds the theoretical background of this study to explain the relationship between trust and purchase intention. Several studies added trust to the theory of planned behavior (e.g. Chen, 2017; Giampetri et al., 2018; Akbari et al., 2019). Whereas Giampetri et al. (2018) and Akbari et al. (2019) added trust as an independent variable which influences intention but did not tested the influence of trust on the three variables that are, according to the theory of planned behavior by Ajzen (1991), influencing intention, Chen (2017) also analyzed the influence of trust on attitude toward the behavior. The result of this analysis was that trust has a significant effect on the attitude toward the behavior (Chen, 2017) which means for this study, that the positive relationship between trust and purchase intention can be explained through the relationship between trust and attitude toward the behavior. If a customer trusts an organization, this has a positive effect on the attitude toward purchasing which has a positive influence on the intention to purchase something from this organization.

Before the participants were aware of the greenwashing, they tend to trust the organization. After they were aware of the greenwashing, they tend to not trust the organization. According to Davies and Olmedo-Cifuentes (2016), corporate misconduct is able to damage trust. The misconducts they define can be applicated on greenwashing by an organization and therefore, can explain the decrease in trust after the participants were aware of greenwashing. Especially not telling the truth is one of the misconducts that can be applied on greenwashing and is identified as one of the most damaging misconducts for trust. Misconducts which have been measured in the study were not telling the truth and fairness. Furthermore, the decrease in trust can be explained through the antecedents of trust based on which the customer can decide whether to trust the organization. Greenwashing damages all of them or has as a consequence that the organization no longer fulfills one of these antecedents of trust which then leads to the decrease in trust. Johnson-George and Swap (1982) and Geyskens et al. (1998) identified (perceived) honesty and Mayer et al. (1995) and Geyskens et al. (1998) benevolence as antecedents of trust. These two antecedents also have been explicitly tested in this study. Both, the tested corporate misconducts and antecedents of trust decrease after the participants were aware of greenwashing. This decrease in the antecedents of trust can explain the loss in trust and therefore, since the positive relationship between trust and purchase intention has been verified through the findings, can explain the decrease in customer purchase intention. Even if not tested by other researchers yet, the decrease in the antecedents of trust can be explained by the greenwashing scandal presented to the participants and thereby, by the awareness of greenwashing. The decrease in honesty is simultaneously an increase in not telling the truth and the decrease in fairness an increase in fairness as corporate misconduct. Davies and Olmedo-Cifuentes (2016) identified these misconducts as damaging trust. Since the corporate misconducts increased after people were aware of greenwashing, this can explain why greenwashing damages trust.

Since greenwashing generates a loss in trust, the decrease in customer purchase intention can be explained through the loss in trust. Some researchers expect that the influence of greenwashing is an indirect influence which comes through the influence of greenwashing on trust and the relationship between trust and purchase intention (e.g. Akturan, 2018; Vassilikopoulou et al., 2018). Vassilikopoulou et al. (2018) expect that during the impact of a crisis on purchase intentions could be related to the decrease of customer trust towards the organization.

On the other hand, it could also be expected that greenwashing has a direct effect on purchase intention. The theory of planned behavior could build a theoretical background to explain the negative influence of greenwashing on purchase intentions. The attitude toward behavior describes the evaluation of the outcome of a behavior by the person (Ajzen, 1991). In the case of greenwashing, if the behavior is to purchase and the person wants to buy a sustainable product as promoted, the evaluation of the outcome of the behavior just can be negative since the person cannot believe anymore he or she will get a sustainable product as promoted since the organization lied about its sustainability. Furthermore, a greenwashing scandal often spawn a discussion like the VW diesel scandal spawn a discussion about diesel cars and diesel car bans. This discussion which is also captured by the media, often generate a general negative mood about the product like the diesel cars, but also about the organization involved in the scandal (Majlath, 2016). This general negative mood can influence the subjective norm and thereby, produce social pressure not to purchase this product or something from the organization involved. Even though some researchers expect that greenwashing just has an indirect effect on purchase intentions through the decrease in trust, the theory of planned behavior is able to explain why greenwashing has a direct effect on purchase intentions. But, these relations to the theory of planned behavior are just assumptions that have been made that could explain the negative effect greenwashing has on purchase intentions. But, this direct influence of greenwashing on purchase intention has been rejected in this study.

Therefore, it can be assumed that greenwashing has just an indirect effect on purchase intention since it has no significant direct effect on purchase intention. The indirect effect comes through the significant negative effect of greenwashing on trust and through the strong relationship between trust and purchase intention as has been assumed by other researchers already (e.g. Akturan, 2018; Vassilikopoulou et al., 2018).

The negative effect greenwashing has on trust and thereby, on purchase intention of customers can just become valid if customers are aware of the greenwashing. If they trust the organization and are not aware of the greenwashing and also do not suspect greenwashing by the organization, their purchase intention will not decrease since the organization will not loose their trust. Only after greenwashing by the organization is detected and customers are aware of it, they will lose trust in the organization and their purchase intentions will decrease.

The theoretical contribution of this study is to extend the knowledge of the impact a greenwashing scandal has on customer trust and purchase intention. There is not sufficient research on the influence and consequences a greenwashing scandal has on trust and purchase intention. As Kahraman, & Kazancoglu (2019) mention, "there is a gap for deeply understanding consumer greenwashing perception and their effects on purchase intentions toward products that claim to be natural" (Kahraman, & Kazancoglu, 2019, p.2). The literature focuses more on how an organization can increase the level of trust after it decreased through a scandal. Nonetheless, it is important to know the consequences greenwashing can have on

customer trust and purchase intention. Therefore, research should be done in this field to analyze the consequences a greenwashing scandal has, also in different industries and organizations and with regard to and control of different demographic variables (e.g. age, gender, education) to be able to generalize the findings and the consequences (Nyilasy et al., 2014; Chen et al., 2019; Gupta et al., 2019; Kahraman, & Kazancoglu, 2019). This study aims to start filling the gap in literature and analyzes the consequences of a greenwashing scandal of a fictive organization. This study then can contribute to the generalization of the consequences if sufficient research in other industries and with other (real) organizations is done in the future.

Furthermore, this study also contributes to the theory of planned behavior by Ajzen (1991). The theory of planned behavior is not included in the analysis, but it is used to explain the relationships between the variables. Other researchers added trust to the theory of planned behavior (e.g. Chen, 2017; Giampetri et al., 2018; Akbari et al., 2019), but just Chen (2017) and Akbari et al. (2019) connected trust to the other variables that have according to the theory of planned behavior an influence on purchase intention. This study aims to connect trust also to these other variables in the theory of planned behavior. In addition to that, also the different antecedents of trust and corporate misconducts that damage trust has been used to explain the loss in trust through greenwashing and the positive effect trust has on purchase intention.

The practical contribution is comprised of the theoretical contribution, namely that managers of organizations, which have the power to decide whether to do greenwashing or not, can get an idea of the consequences greenwashing can have on customer trust and purchase intention if it is detected and a greenwashing scandal occurs. Certainly, further research has to be done to be able to generalize the consequences greenwashing can have and organizations will be aware of these consequences, but this study maybe nudge further research and, if sufficient research has been done on this topic, organizations might notice that greenwashing can have huge consequences on customer trust and thereby, on their purchase intentions and on the organizations performance in the end. If organizations then are frightened off greenwashing, customers are protected from purchasing unsustainable products or at least products that are not as sustainable as they are promoted.

#### 6. CONCLUSION

This study was conducted to answer the research question Which effect has a greenwashing scandal in terms of trust on the purchase intention of customers? In order to answer this question, three hypotheses have been built. By testing these hypotheses, the first hypotheses, that trust positively influences customer purchase intentions, and hypothesis 2, that greenwashing has a negative effect on trust, if people are aware of a greenwashing scandal, have been confirmed. The results of the study showed that trust has a positive relationship towards purchase intentions of customers. This positive influence can be explained by the antecedents of trust based on which a customer can decide whether to trust an organization and by the theory of planned behavior. Trust and the antecedents of trust are linked to the theory of planned behavior and positively influences especially the attitude toward the behavior since trust can be a substitute for missing information in a customer-organization relationship and can lead to a positive evaluation of the outcome by the customer. Furthermore, the analysis showed that greenwashing has a significant negative effect on trust. Most of the respondents lost trust in the organization after they were aware of the greenwashing by the organization. The loss in trust can be connected to corporate misconducts like not telling the truth and acting unfairly which are present if people are aware of a greenwashing scandal. These corporate misconducts are able to damage customer trust. The purchase intentions of the respondents decreased after they were aware of the greenwashing as well, but the third hypothesis, that greenwashing negatively affects customer purchase intentions if people are aware of a greenwashing scandal, has been rejected through the analysis. Therefore, the loss in purchase intention can more likely be linked to the loss in trust in this study. From this finding, it can be assumed that greenwashing has an indirect effect on purchase intention, but this has not been tested in this study and therefore, cannot be confirmed.

Through this study, it has been approved that greenwashing can have consequences for an organization if it is detected. A greenwashing scandal can cause that customers loose trust in the organization and thereby, also their purchase intentions for products of this organization. This means that the organization most probably will have losses in their sales and have to invest in activities which aim to rebuilt the trust of customers and stimulate their purchase intentions. Certainly, greenwashing just have consequences for the organization if customers are aware of the greenwashing.

Admittedly, further research is necessary to confirm the results of this study and to be able to generalize the consequences greenwashing has for an organization in terms of customer trust and purchase intentions.

#### 7. LIMITATONS

This research was performed with a small sample size (n = 62)and in addition to that, most of the participants (91.9%) were German. Therefore, it is lacking in validity and the results cannot be generalized. It is recommended to continue the research in this topic of the influence of greenwashing on trust and purchase intention in the future to get more insights into the topic and generalizable results of the consequences greenwashing have.

A fictive case was used to present greenwashing to the participants. The organization which is presented in the cases is also a fictive and not a real organization. Therefore, some factors which are expected to have an effect on customers trust and also on purchase intentions like past experience and the image of the organization are not included in this research. Due to this fact, the consequences of greenwashing and customer trust and purchase intention can be different from these concluded in this study. It is recommended that further research will be done on this topic with real organizations to test these other variables that could have an influence on customer trust and purchase intention.

Furthermore, the research of this study included just one group

of participants which answered both sets of questions. This means that the groups are dependent since the same respondents answered the questions. For a reliable empirical analysis, it is better to have two separate, independent groups, one treatment and one control group. The first group, the control group, would then answer the questions after reading the first case of the organization which includes the introduction and a description of the goals and products of the organization. The second case wit the treatment, the greenwashing scandal, would then just be presented to the second group, the treatment group. The greenwashing case then must include a short introduction of the organization since the organization is not a real organization and the respondents do not know it. This group would then answer the same questions as the first group. Since all the participants answered the question after both cases, the answers are dependent and it is possible that the data contains some errors. The participants can remember what they answered to the questions at the first time and then tend to answer the same, or in this case, tend to answer the question at a lower level since the organization shown worse in the second case. For the structural equation modelling, the group has been treated as it was two groups that answered the questions to be able to create a dummy variable for greenwashing. Therefore, the results of this analysis are lacking in reliability. It is recommended for future studies to divide the participants into two groups, a treatment and a control group, to get results with less errors and which are more reliable.

The items used in the survey of this study are items of established surveys. Nonetheless, some questions were not loading on the variables according to the factor analysis. After removing these questions, the reliability of the scale which should measure purchase intention was below the minimum value of .7. This indicates that the scale is not reliable and do not test the variable appropriately. The theory of planned behavior is not explicitly included in the questions. It is recommended to use a different scale to test purchase intention and to include questions to the theory of planned behavior into future research on this topic.

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### 10. APPENDICES Appendix A

First case – Introduction of company

#### **BIOproducts enters the market**

The company BIOproducts, founded in 2014, sells all kinds of organic products.

The main product is organic food. The company contracted responsible farms that follow and appreciate the organic standards. They deliver BIOproducts with organic food like meat, milk or eggs as well as organic raw materials like sheep wool and cotton. The marketing manager of BIOproducts said in his interview with us that they have several meetings with the farm owners and monitor the farms they want to work with over a specific time frame to ensure their organic standards before working with these farms.

If it is possible, BIOproducts is working with regional companies to ensure the freshness of the products. The organic resources will then be partially sold to customers and partially processed to end products like convenience food, sandwiches and clothing. Recently, BIOproducts introduced their own cosmetics. The laboratories which develop these for BIOproducts exclusively use certificated organic raw materials and do not test the products on animals.

The founder of BIOproducts confirmed that BIOproducts uses their meetings and monitoring to just work with credible and reliable suppliers that hold the organic standards, so that BIOproducts is able to sell certificated products to their customers. To the question which customers BIOproducts is aiming for, the founder answered: "All people in Germany and the Netherlands that want to know what they eat and who is interested in the environment and the health of animals".

The direction of BIOproducts is really clear: environmental-friendly, animal-friendly, organic standards and trustworthiness.

#### **BIOproducts erobert den Markt**

Die Firma BIOproducts, gegründet 2014, verkauft verschiedene Bio-Produkte.

Das Hauptprodukt sind Bio-Lebensmittel. Die Firma schließt Verträge mit verantwortungsbewussten Bauern, die die Bio-Standards erfüllen und schätzen. Die Bauern beliefern BIOproducts mit Bio-Lebensmitteln wie Fleisch, Milch und Eier, aber auch mit Bio-Rohstoffen wie Schafswolle und Baumwolle. Der Marketingmanager von BIOproducts gab in seinem Interview mit uns an, dass sie mehrere Treffen mit den Bauern haben und die Höfe, mit denen sie arbeiten wollen, über einen festgelegten Zeitraum überprüfen, um sich hinsichtlich der Einhaltung der Bio-Standards abzusichern, bevor sie endgültig mit den Höfen arbeiten.

Wenn es möglich ist, arbeitet BIOproducts mit lokalen Firmen, um die Frische der Produkte zu sichern. Die Bio-Rohstoffe werden dann teilweise an Kunden verkauft und teilweise zu Endprodukten wie Fertiggerichte, Sandwiches und Kleidung weiterverarbeitet. Kürzlich hat BIOproducts ihre eigene Kosmetik eingeführt. Die Labore, die diese für BIOproducts entwickeln, verwenden ausschließlich zertifizierte Rohstoffe und testen die Produkte nicht an Tieren.

Der Gründer von BIOproducts bestätigte, dass BIOproducts ihre Treffen und Überprüfungen dazu nutzen, um nur mit glaubwürdigen und zuverlässigen Zulieferern zu arbeiten, die die Bio-Standards einhalten, sodass BIOproducts in der Lage ist, zertifizierte Produkte an ihre Kunden zu verkaufen. Zu der Frage, welche Kunden BIOproducts ansprechen will, antwortete der Gründer: "Alle Menschen in Deutschland und den Niederlanden, die wissen wollen, was sie essen und, die Interesse an der Umwelt und der Gesundheit von Tieren haben".

Die Richtung von BIOproducts ist sehr klar: umweltfreundlich, tierfreundlich, Bio-Standards, vertrauenswürdig.

#### **Appendix B**

Second case – Greenwashing scandal

#### **BIOproducts deceives customers**

BIOproducts entered the market. It sells all kind of organic products, especially food, clothes and cosmetics.

Last week, one of the farms that is working for BIOproducts lost its certificate because of harming the organic standards. The farm kept too many pigs in too small stables. The owner of the farm made BIOproducts responsible for the grievances. The owner testifies to the police that it is true that BIOproducts has several meetings with him and monitored his farm regarding the organic standards, but after a year working together, BIOproducts wanted to pay less money for more raw materials. Furthermore, he said that he told the responsible of BIOproducts he cannot produce so many products for this price by keeping the organic standards. The answer of BIOproducts was that he should produce the products in this quantity to this price or the contract will be cancelled. Since the farmer needed the money, he ignored the organic standards and satisfied the requirements of BIOproducts.

After this case was made public, authorities started examining other suppliers of BIOproducts as well. The outcome was shattering. Many other suppliers told nearly the same story as the first farmer. Even laboratories admitted that they made tests on animals, more specifically on rabbits to test if the cosmetics irritate the eyes.

Since this greenwashing scandal got known, BIOproducts and its suppliers will be investigated, but it is likely that BIOproducts as well as many of its suppliers will lost its certificate for eco- and animal-friendliness. Should it prove true that BIOproducts do not care about suppliers meeting organic standards and even urge them to disregard these. BIOproducts used these certificates illicitly and has deceived its customers.

#### **BIOproducts betrügt Kunden**

BIOproducts eroberte den Markt, und verkauft die verschiedensten Bio-Produkte, vor allem Lebensmittel, Kleidung und Kosmetik.

Letzte Woche verlor ein Bauer, der mit BIOproducts arbeitet, sein Zertifikat, weil er die Bio-Standards verletzt hat. Der Hof hielt zu viele Schweine in zu kleinen Ställen. Der Bauer macht BIOproducts für die Missstände verantwortlich. Der Bauer sagte gegenüber der Polizei aus, dass es stimmt, dass BIOproducts mehrere Treffen mit ihm hatte und den Hof in Bezug auf die Bio-Standards überprüft hat. Aber nach einem Jahr Zusammenarbeit wollte BIOproducts nur noch weniger Geld für mehr Produkte bezahlen. Darüber hinaus habe er dem Verantwortlichen von BIOproducts gesagt, dass er nicht in der Lage sei, so viele Produkte zu diesem Preis bei Einhaltung der Bio-Standards zu produzieren. Die Antwort von BIOproducts sei gewesen, dass er die Produkte in dieser Menge zu diesem Preis produzieren soll oder der Vertrag gekündigt würde. Da der Bauer auf das Geld angewiesen war, ignorierte er die Bio-Standards und erfüllte die Bedingungen von BIOproducts.

Nachdem dieser Fall bekannt wurde, überprüften die Behörden auch andere Zulieferer von BIOproducts. Das Resultat war niederschmetternd. Auch viele andere Zulieferer erzählten fast die gleiche Geschichte wie der erste Bauer. Sogar Labore gaben zu, dass sie Tests an Tieren durchgeführt haben, genauer an Hasen, um die Kosmetik auf Augenreizungen zu testen.

Seit dieser Greenwashing-Skandal bekannt wurde, wird bei BIOproducts und seine Zulieferer überprüft, aber es ist wahrscheinlich, dass BIOproducts und viele Zulieferer ihre Zertifikate für Umwelt- und Tierfreundlichkeit verlieren werden. Sollte es sich bewahrheiten, dass BIOproducts sich nicht um die Einhaltung der Bio-Standards seiner Zulieferer gekümmert hat und sie sogar dazu gedrängt hat diese zu verletzen, hat BIOproducts seine Zertifikate unerlaubterweise verwendet und seine Kunden betrogen.

Appendix C Items included in survey

Variable	Scale	Items in survey
Trust	7-point scale (Strongly Disagree – Neutral – Strongly Agree)	<ol> <li>BIOproducts is trustworthy</li> <li>BIOproducts wants to be known as one who keeps promises and commitments</li> <li>BIOproducts is honest in describing its products</li> <li>I trust BIOproducts keeps my best interests in mind</li> <li>I find it necessary to be cautious with BIOproducts</li> <li>BIOproducts has more to lose than to gain by not delivering on their promises</li> <li>BIOproducts behavior meets my expectations</li> <li>BIOproducts could not care less about servicing a person from my country</li> <li>BIOproducts tries hard to be fair in dealing with others</li> <li>BIOproducts performance should be monitored more closely</li> </ol>
	7-point scale ( <i>Stimme garnicht zu – Neutral – Stimme</i> <i>vollständig zu</i> )	<ol> <li>BIOproducts ist vertrauenswürdig</li> <li>BIOproducts möchte als Firma gesehen werden, die ihre Versprechen und Verpflichtungen einhält</li> <li>BIOproducts ist ehrlich beim Beschreiben ihrer Produkte</li> <li>Ich vertraue, dass BIOproducts meine Interessen berücksichtigt</li> <li>Ich finde es notwendig, vorsichtig mit BIOproducts zu sein</li> <li>BIOproducts hat mehr zu verlieren als zu gewinnen, wenn sie ihre Versprechen nicht einhalten</li> <li>BIOproducts hat ein starkes Gerechtigkeitsgefühl</li> <li>BIOproducts Verhalten entspricht meinen Erwartungen</li> <li>BIOproducts Taten und Verhalten stimmen nicht überein</li> <li>BIOproducts bemüht sich, fair im Umgang mit anderen zu sein</li> <li>BIOproducts Performance sollte genauer überwacht werden</li> </ol>
Purchase Intention	7-point scale (Strongly Disagree – Neutral – Strongly Agree)	<ol> <li>The next time I desire a (sustainable) product, I intend to use BIOproducts</li> <li>I would continue buying products from BIOproducts</li> <li>The next time I purchase a (sustainable) product, I will not prefer BIOproducts</li> </ol>
	7-point scale (Stimme garnicht zu – Neutral – Stimme vollständig zu)	<ul> <li>13. Beim nächsten Mal, wenn ich ein (nachhaltiges) Produkt kaufen möchte, beabsichtige ich es bei BIOproducts zu kaufen</li> <li>14. Ich würde weiterhin Produkte von BIOproducts kaufen</li> <li>15. Beim nächsten Mal, wenn ich ein (nachhaltiges) Produkt kaufe, werde ich BIOproducts nicht bevorzugen</li> </ul>
Controls	Individual scalesAge: value between 16 and 110 possibleGender: Male – Female – OtherNationality: Dutch – German – OtherSustainability: Definitely yes – Probablyyes – Neutral – Probably not – DefinitelyyesPolitical orientation: Left wing – Middleleft – Middle right – Right wing	<ul><li>16. How old are you?</li><li>17. Which gender do you have?</li><li>18. Which nationality do you have?</li><li>19. Is sustainability important for you</li><li>20. How would you classify yourself politically?</li></ul>
	Individual scales Alter: Zahl zwischen 16 und 110 möglich	<ol> <li>16. Wie alt sind Sie?</li> <li>17. Welches Geschlecht haben Sie?</li> <li>18. Welche Nationalität haben Sie?</li> <li>19. Ist Nachhaltigkeit wichtig für Sie?</li> </ol>

Geschlecht: Männlich – Weiblich – Divers	20. Wie würden Sie sich selbst politisch einordnen?
Nationalität: Niederländisch – Deutsch – Andere	
Nachhaltigkeit: <i>Definitiv ja – Eher ja –</i> Neutral – Eher nicht – Definitiv nicht	
Politische Orientierung: Links – Mitte links – Mitte rechts - Rechts	