ERASMUS UNIVERSITY ROTTERDAM

Erasmus School of Economics

Bachelor Thesis Marketing

The Importance of Greenwashing Information on Consumer Perception

A marketing research into the effects of greenwashing information on consumer perception in the fast-fashion industry

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Executive Summary

Thesis statement: Does receiving information on greenwashing practices alter consumers' perception of fast fashion brands in a negative way? Which boundary conditions moderates the consumers' reaction? This paper aims to research how receiving greenwashing information changes the likelihood of buying for consumers of fast fashion. Furthermore, this paper investigates whether moderators, such as the need to answer socially desirable and the degree of environmental consciousness, may influence this change. To test this, a survey was implemented using as reference the brands H&M, Asos and Zalando, and Zara as a negative control. Survey participants were asked to state their likelihood to buy before and after receiving information about the brands' greenwashing practices. The results of the first hypothesis show that providing information on greenwashing practices decreases the likelihood to buy for consumers of that brand. The second hypothesis, which tested if more environmental concern would influence the difference in likelihood to buy, had no significant explaining power. Lastly, the results of the third hypothesis show that answering the questions about the likelihood to buy before and after receiving information on greenwashing practices for a person's social circle (neutral involvement) results in a lower difference in likelihood to buy when compared to personal involvement. Although the difference is lower with neutral involvement, this was not significant.

Chapter 1: Introduction

A recent study by Changing Markets Foundation (2021) of the websites of 12 of the biggest European fashion brands, including Asos, H&M, Zalando and Zara, shows that 59% of the claims from the brands made about environmental practices are unsupported and misleading when compared to the UK Competition and Markets Authority's new guidelines for green claims (Competition & Markets Authority, 2021). Some brands even scored significantly higher with 96% of H&M's and 89% of ASOS's claims failing the guidelines for at least one of the six principles. Despite these shocking numbers, fast fashion consumption is not decreasing. This raises the question of whether consumers are not aware of these practices or if this information is known, but consumers choose to ignore it.

While there is a considerable amount of studies exploring greenwashing practices, little research is done into the effect of greenwashing information on consumers. Research has found that greenwashing information significantly decreases the ad evaluation (Majláth, 2017), but no research has been executed on the effect on likelihood to buy. This research could add to the existing literature as it studies a different part of consumer perception of greenwashing practices which could support the literature already written about this topic or give a new perspective. Greenwashing is, among others, a deceptive advertisement tactic on which not much recent research has been done and this study could add to this limited academic research field. Fake news as a form of deceptive advertisement has been studied and results show that banning this form of advertisement leads to a decline in visits to the product online (Rao, 2021). Results of this study could support that the banning of deceptive advertisement, in this case greenwashing, could lead to a decline in consumer interest in the product.

In the last two decades, fast fashion has become a fastly used business model for big-name fashion brands and, together with rising overconsumption, this increased demand for inexpensive clothing has resulted in a large strain on the environment (Bick et al., 2018). Marketing practices can have a considerable impact on consumers' choices and when used right can encourage sustainability. To persuade consumers into engaging in eco-friendly behaviour, presenting the right information is critical (White et al., 2019). Increasing knowledge of greenwashing could add to this picture where consumers are faced with the right information and thus increase eco-friendly behaviour. This shows the social importance of research into the effect of greenwashing information as results could show that an increase in information could lead to a decrease in the purchasing behaviour in fast fashion and thus a decrease in environmental impact.

When assessing deceptive advertisement for regulation making it is difficult to draw the line between miscomprehension and misleading as making regulations too strict could result in consumers becoming lazy and reducing their sense of critical thinking and producers losing creative freedom over their product marketing. On the other hand, making regulations too weak results in harm to consumers and society as a whole (Attas, 1999). Researching the impact of greenwashing information on consumers could add to the conversation on where regulation makers should draw this line for deceptive advertisement.

1.1 Problem statement

This research will thus focus on the question if receiving information on greenwashing practices alters consumers' perception of fast fashion brands in a negative way and which boundary conditions moderate the consumers' reaction. The effect of greenwashing on the likelihood to buy will be tested after which the moderating effect of pro-environmental behaviour and social desirability bias will be added.

In this research, we will first look at existing literature in Chapter 2. This exploratory research is used to define terms, and find what results from previous studies are relevant to this research. In Chapter 3 the hypotheses are formulated based on the results found in Chapter 2 and these hypotheses and their analysis strategy are further explained. In Chapter 4 the results from the hypotheses are presented, next to more exploratory results and lastly in Chapter 5 these results are concluded and further implications and recommendations are reviewed.

Chapter 2: Literature Review

2.1 Greenwashing

To understand the problem of greenwashing in the fast fashion industry we first need to define the concept of greenwashing and what drives companies to use it. The term greenwashing is used to describe the spreading of false or incomplete information about the degree of environmental or social involvement a company has, to deceive consumers and the public into thinking they are more environmentally responsible than what actually is the case (Furlow, 2009). This practice can be seen on a firm level, where a company as a whole does not meet up to their claims, or for a specific product or service (product-level) (Delmas and Burbano, 2011). This product-level greenwashing can be categorized into seven sins, consisting of the sin of hidden trade-off, no proof, vagueness, worshipping false labels, irrelevance, lesser of two evils and the sin of fibbing (TerraChoice Group, 2009). On a firm level, behaviour can be classified as greenwashing when a brand engages in poor environmental performance but positive communication about this performance at the same time. We can categorize greenwashing firms in a spectrum of environmental performance and their communication about it alongside silent brown firms, vocal green firms and silent green firms (figure 1).

Communication about Environmental Performance	Environmental performance	
	Bad	Good
Positive communication	**Greenwashing Firms**	Vocal Green Firms
No communication	SIlent Brown Firms	Silent Green Firms

(Figure 1: Analysis of firms based on their environmental performance and communication. Source: Delmas and Burbano, (2011))

When the environmental performance of a firm is seen as set, their communication about this performance is the factor that makes brown firms, greenwashing firms. This communication that leads to greenwashing is influenced by several external factors grouped into market and non-market factors. Market external factors include the perception of consumers and investors and competition. Non-market external factors consist of, among other things, regulations, opinions of activists, NGOs and media pressure. The amount of effect these external factors have

can differ and depend on drivers within the company such as firm characteristics, internal structure and ethical climate (Delmas & Burbano, 2011).

Greenwashing was first seen in the early 1990s (Furlow, 2009), and at the start of the new century greenwashing was a practice that was regularly used. With the increase of this phenomena, the competition within the market for environmentally fair products grew and companies that truly are environmentally conscious got competition from brands claiming to be alike without the commitment. Another problem which could arise is that the overuse and misuse of environmental claims on the market could lead to these claims, true or false, having no impact on the consumer anymore. This problem tends to only grow bigger as there is an increase in general awareness and understanding of issues about sustainability among consumers which leads to the expectation for companies to engage more in responsible business practices and, rather than doing this to appeal to their consumers, many companies have instead turned to greenwashing (Munir and Mohan, 2022).

2.2 Greenwashing in the fast-fashion industry

The term fast fashion refers to the current vastly available clothing pieces that are made with low production costs (Bick et al., 2018). Each year 80 billion new pieces of clothing are purchased worldwide, which results in a yearly revenue of $1.2 trillion for the fast-fashion industry. This overconsumption and impressive revenue results in the vastly growing production of these cheap clothing pieces. Production costs are kept down by producing in low and middle-income countries with lower labour costs such as China and Bangladesh. A vast majority of these fast-fashion items have a life cycle no longer than a year; In America, the largest fast-fashion consumer in the world, 85 per cent of clothing is sent to landfills which translates to nearly 3.8 billion pounds annually (Bick et al., 2018). On the producer side, the fast-fashion industry has shifted the environmental responsibility from this production, such as excessive waste and poor working conditions to the under-resourced third-world countries.

To diminish these large-scale problems, several fast-fashion brands use small green initiatives such as using organic cotton or making a promise to recycle. These initiatives, in the case that they are implemented for real, do not add to real sustainability but are only a response to increased environmental concern from their consumers and are used mainly for financial gains (Park & Kim, 2016). Consumers of fast-fashion must be aware that many firms only promote themselves as

environmentally concious to gain a competitive advantage, but due to increased greenwashing cases, consumer confusion is increasing.

Although there hasn't been research on the effect of greenwashing information on the likelihood to buy, a similar setup was used for researching the effect of additional greenwashing information on the evaluation of ads. The results show that exposing the greenwashing practices of brands, influences the evaluation of their ads negatively and that respondents who have a higher environmental concern showed a greater change in ad evaluation (Majláth, 2017).

Chapter 3: Methodology

3.1 Hypotheses

Consumers must be aware of greenwashing (Bick et al., 2018) and one of the ways to decrease firm-level greenwashing is to gather and share information about incidents of greenwashing (Delmas & Burbano, 2011). This research will test if sharing information about greenwashing results in a change in consumers' perception of fast fashion.

H1: More information about a brand's greenwashing practices will decrease the likeliness to buy

Consumers' environmental concerns can explain the variance of change in ad evaluation (Majláth, 2017). Although it is expected that all consumers react negatively when receiving information on greenwashing, consumers with a higher environmental concern could react stronger.

H2: The negative effect of greenwashing information is stronger for those participants scoring higher in pro-environmental behaviour

Social desirability bias is one of the potential threats to data quality in surveys (Walzenbach, 2019). Previous research often used self-reporting on pro-environmental behaviour and this may have been distorted due to, among other things, social desirability (Milfont, 2009). Instead of asking a participant's own likeness to buy, asking how likely their social circle is to buy omits this social desirability bias and could result in people feeling less pressure to answer the questions with the socially desirable answer.

H3: The impact of information on greenwashing practice will be stronger with neutral involvement (social circle) instead of personal involvement

3.2 Research design

The focus of this research is to investigate the effect of information about greenwashing on customer perception in the fast fashion industry. To investigate this effect, a quantitative study has been designed. This method is chosen over a qualitative method since this ensures a more scientific and objective approach.
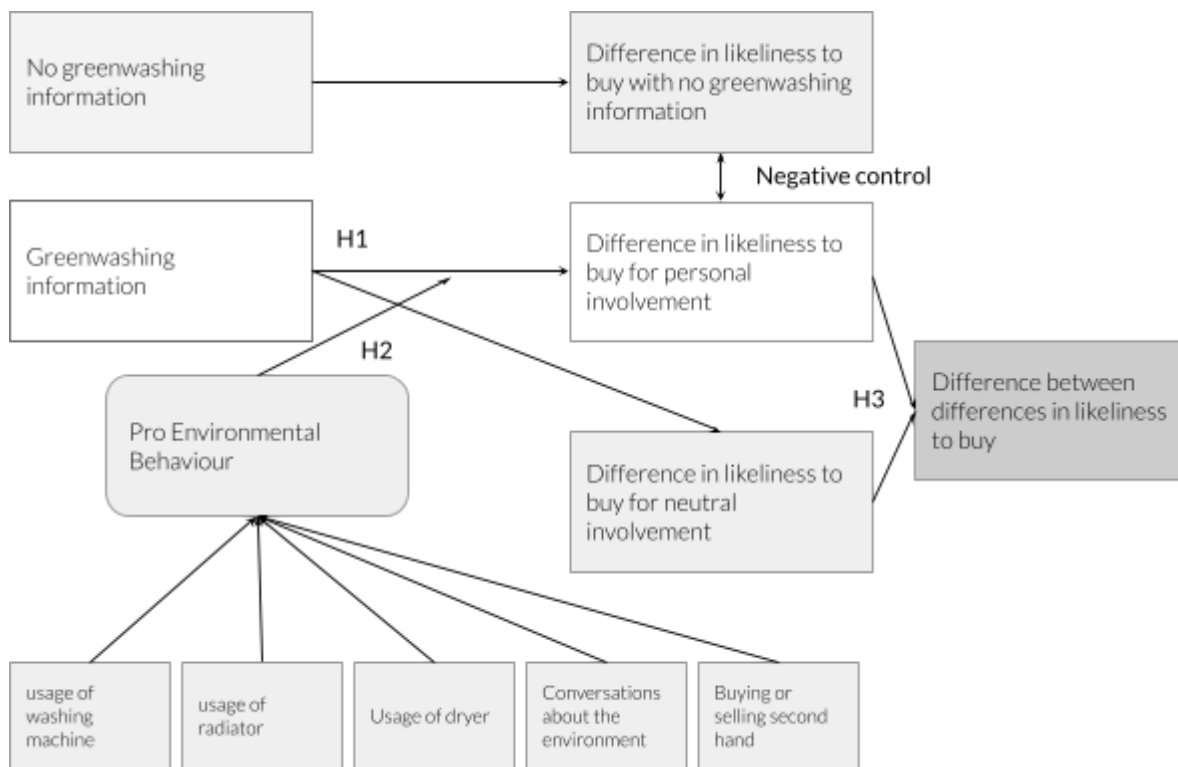
(Figure 2: Path diagram)

4 fast fashion brands will be used who each have dedicated 'sustainable' or 'responsible' collections, of which 3 actively participate in greenwashing. The fourth brand does not participate in greenwashing and the participants' answers to this brand will be used as a negative control group. This negative control has been added to detect confounding and recall bias (Lipsitch et al., 2010).

H&M

Hennis and Mauritz (H&M) is the biggest company in the H&M group. (H&M Group, 2022) Next to their regular collection, H&M has their Conscious Choice label. The company claims that every product within this label is made from at least 50% sustainably sourced materials, including organic cotton and recycled polyester (H&M Hennes & Mauritz AB., n.d.). When analyzing the company's regular and sustainable collection, it is found that on avarage the garments contained 56% synthetic fibres of which 61% was polyester. For 42% of products, H&M made a sustainability claim but 96% of these claims were found to be in breach of CMA (Competition and Markets Authority) guidelines (Changing Markets Foundation, 2021). Due to this, H&M is considered to be greenwashing in this research.

Asos

Asos is an online retailer for fast fashion and is used worldwide (ASOS Plc, 2021). Asos in-house labels consist of ASOS DESIGN, ASOS EDITION, ASOS 4505, Collusion, Reclaimed Vintage, Topshop, Topman, Miss Selfridge and HIIT. Asos classifies responsible clothing items in their Responsible Edit. In this collection, 57% of the garments had a synthetic composition and 29% contained polyester of which only 9% used recycled synthetic. 89% of the sustainability claims Asos made violated CMA guidelines (Changing Markets Foundation, 2021) and thus is considered greenwashing.

Zalando

Zalando is a European e-commerce company in the fast fashion industry (Zalando SE, 2022). Zalando's Private Labels consists of Anna Field, Even&Odd, Friboo, Pier One, Yourturn and ZIGN. When looking at their communication concerning sustainability, the company stated that in 2020, 50% of their clothes consisted of more sustainable products, and that one of their private labels, ZIGN, was fully committed to sustainability (Zalando Corporate, n.d.). When analyzing Zalando's products, 72% of the garments contained synthetics and 55% contained polyester with only 10% of these synthetics being recycled. In the sustainability collection, 48% of the clothes contained polyester, of which only 18% contained recycled synthetic content. The company claimed that 86% of the products analyzed were sustainable, but a full 79% flouted CMA guidelines. (Changing Markets Foundation, 2021). When comparing the material composition of the main collection to the sustainable collection only a very small difference is found which shows that the labelling is mostly for marketing purposes and thus considered greenwashing.

Zara (negative control)

Zara SA is a Spanish apparel retailer and the largest company in the Inditex group (Inditex, 2022) The company specializes in fast fashion, with products such as clothing, accessories, shoes, swimwear, beauconsistperfumes. In 2016 the Inditex group launched their Joined Life collection at Zara. This Join Life label is given to garments that are produced more sustainable trough improved proceses and better materials. Although Zara has, similar to the other brands, a dedicated sustainable line, they differentiate themself through this line not being flagged as greenwashing (Changing Markets Foundation, 2021). Zara's Join Life collection uses 19 per cent fewer synthetics compared to its main collection, all the materials used are clearly communicated and most of the sustainability claims are verified.

3.4 Data collection and analysis

To collect the data needed for the hypotheses, a whitin person information experiment will be executed. This experiment will consist of a number of questions, then information will be given after which the same questions will be asked again. Next to this information experiment, different covariates (Appendix A) will be collected to define the sample and further explain the results. The data is collected through an online survey made with Qualtrics (Appendix D).

Randomization check

Firstly, the sample will be tested for correct randomization. If no significant differences are found between the treatment group and negative control group (Zara respondents) we can assume correct randomization. To test this randomization, several independent sample t-tests will be carried out using the different covariates age, gender, income and expenditure on clothing. If the results of the t-tests have a p-value greater than 0.05, we cannot reject the 0 hypothesis that the means are equal and thus the randomization is correct.

H1: Information about a brand's greenwashing practices will decrease the likelihood to buy

Data for this hypothesis will be collected through an information experiment. Participants will be shown the logo of the brand and a selection of products that are tagged by the brand as environmentally conscious. The shown products will be differentiated between female and male clothes based on the participants' answer for variable 1 (Appendix A). Participants will be asked to rate their likelihood to buy from this brand on a 5-point scale from not likely at all to buy to very likely to buy. After this, an article will be shown with information about the brand's greenwashing (Appendix B). This information has been sourced from the report "Synthetics Anonymous: Fashion brands' addiction to fossil fuels" (Changing Markets Foundation, 2021). The information will be formulated the same for each brand with only the critical information differentiating between brands to emit possible unwanted effects and increase internal validity. After the information has been given, participants will be asked again to evaluate likeness to buy for themselves and their social circle. The order of presentation of each brand is randomized and all participants evaluate 2 brands.

To test the first hypothesis, the difference in likelihood to buy before and after greenwashing information will be tested through a paired sample t-test. First, a test will be executed on all the information treatments, after this, the test will be executed for each brand separately to look at the differences.

Secondly, the difference in likelihood to buy (before and after information) between the treatment variable and negative control variable will be tested to detect possible confounding and bias. An independent sample t-test is used to test whether survey participants who evaluated a greenwashing company as treatment (Asos, H&M and Zalando) show a difference compared to the negative control (Zara).

H2: The negative effect of greenwashing information is stronger for those participants scoring higher in pro-environmental behaviour

When assessing overall environmental behaviour, a general measure of PEB (pro-environmental behaviour) will be best suited. Currently, all established general measures of PEB rely on participants' self-reports (Lange & Dewitte, 2019) and this paper will thus use self-reporting to measure environmental behaviour. The participants' PEB will be measured using a simplified version of the GEB (general ecological behaviour) scale (Kaiser, 1998). The scale will be simplified due to time and attention concerns for the participants of the survey. From the initial 40 indicators of the GEB scale, 5 are chosen based on familiarity to the participants and connection to the research question. These 5 chosen indicators are questions that fit into the theme of clothing and fashion and use examples that are familiar to the dutch respondents. The simplified GEB scale can be found in Appendix C. The questions will be translated into Dutch and the order of presentation is randomized. The data from the information experiment explained in hypothesis 1 will be used together with these 5 indicators.

To analyze this hypothesis, the scale used for measuring pro-environmental behaviour is first tested for reliability using Cronbach alpha. If the alpha is higher than 0,7 the scale is considered reliable. Next, the mean of the respondents' answers for the 5 items will be calculated to find the pro-environmental behaviour measurement. For this measurement, the answers to the questions with a negative orientation (appendix C) will be reversed.

To test the effect of this general ecological behaviour scale on the difference in likeliness to buy a linear regression will be executed using the formula:

$Y = \alpha + \beta_1 X_1 + u$

With Y being the dependent variable "difference in likelihood to buy" and X_1 the independent variable "GEB scale".

H3: The impact of information on greenwashing practice will be stronger with personal involvement instead of neutral involvement (social circle).

Lastly, for the third hypothesis, The information experiment will be extended by, next to asking about a person's likeness to buy, also asking how likely the respondents' friends will be to buy this brand and after giving more information explained in hypothesis 1, the question will be asked again.

To test this hypothesis the social circle responses will be compared to the personal responses. The difference in likelihood to buy (before and after information) for both variables will be tested against each other through a paired samples t-test. This will first be tested on all responses, after which the test will be executed for each brand separately to look at the differences.

Exploratory research

To test the effect of age, gender, income, spending behaviour and time spent on reading the greenwashing information on the difference in likeliness to buy a linear regression will be executed using the formula:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 \, \beta_5 X_5 + u$$

With Y being the dependent variable "difference in likelihood to buy", X_1 the independent variable "age", X_2 "gender", X_3 "income", X_4 "spending behaviour" and X_5 "time spent on reading the greenwashing information".

3.6 Sample

For testing the hypotheses, responses for the survey were sourced by spreading the survey on different online channels and in personal circles. 55 responses were yielded, from which 2 were dropped due to not completing at least one of the information experiments. Of the remaining 53 respondents 73.6% were female and 26.4% male. The age of the respondents varied between 18 and 58 with a mean of 27.43 and a standard deviation of 11.21.

When looking at income and expenditure on clothes, which was measured on a scale of 1 to 5 with 3 being the average in the Netherlands, we see that for both males and females the income and expenditure on average is lower than the average of the country. When comparing we see that income for males is on average higher but the expenditure on clothes is higher for females.

Female:			
Variable	Observations	Mean	Std. Dev.
Income	31	2.05	1.32
Expenditure Clothes	39	2.79	0.87
Male:			
Variable	Observations	Mean	Std. Dev.
Income	11	2.77	1.72
Expenditure Clothes	13	2.2	0.92

(Table 1: income and expenditure divided by gender)
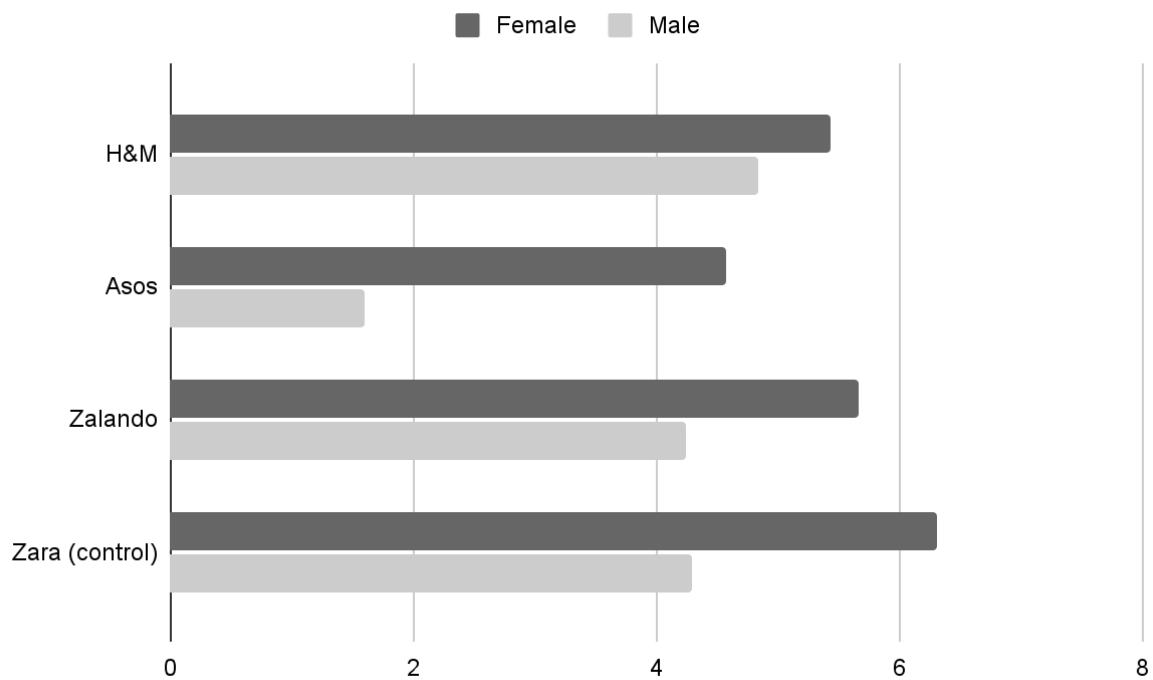
(Figure 3: Brand perception on a scale from 1 to 10 divided by gender)

Chapter 4: Results

4.1 Randomization check

To test if the sample and control group do not have significant differences we check for randomization in the covariates. We find that there are no significant differences in the mean between the sample and control group (table 2) and thus we can assume that the groups are similar.

Variable	Sample Mean	Control Mean	Sample Std. Dev.	Control Std. Dev.	T value	P value
age	28.03	26.45	2.13	2.46	0.4762	0.6385
gender	1.30	1.2	0.08	0.09	0.8142	0.4193
income	2.19	2.33	0.28	0.37	-0.3134	0.7556
expenditure clothes	2.55	2.81	0.91	0.92	-0.9948	0.3246

(Table 2: outcome of independent samples t-test between test and control group)

4.2 H1: Information about a brand's greenwashing practices will decrease the likelihood to buy

When looking at the result for change in likelihood to buy it is seen that for all brands this variable decreased when giving treatment. The overall mean for likeliness to buy was 3.26 before treatment and 2.65 after treatment (table 3).
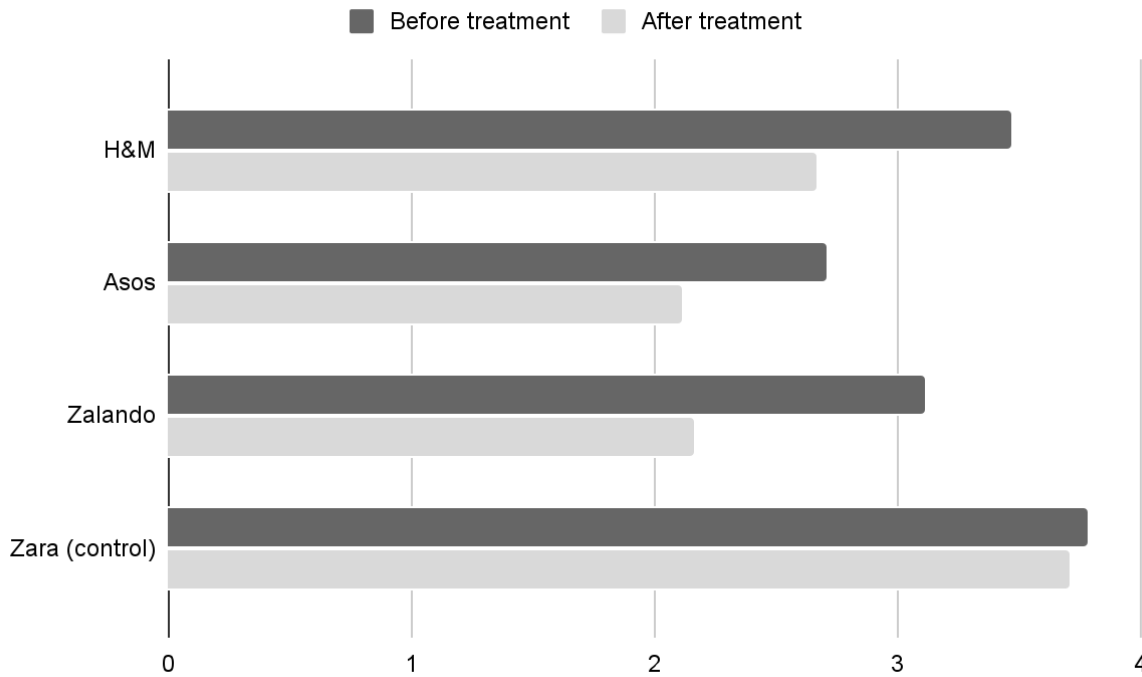
(*Figure 4: Likeliness to buy before and after giving greenwashing information on the brands*)

To test the effect of greenwashing information on the likelihood to buy, it is looked at if there is a significant difference in likelihood to buy before and after the treatment. It is found that, in total, the likelihood to buy before treatment (M=3.10, SD=1.17) is higher than the likelihood to buy after treatment (M=2.31, SD=1.02). This difference is significant: t(57)=8.23, p<0.01 and thus the null hypothesis can be rejected. When looking at the brands separately (table 4), the same results are found. Interpreting this shows that greenwashing information decreases the likelihood to buy with a moderate effect size (Cohen's d = 0,53).

	Before Treatment		After Treatment		T-test	
	Mean	Std. Dev.	Mean	Std. Dev.	T value	P value
H&M	3.46	1.81	2.67	1.05	t(18)5.9124	0.0000
Asos	2.71	1.07	2.11	1.05	t(17) 2.6915	0.0077
Zalando	3.11	1.18	2.16	0.95	t(20)6.9651	0.0000
Total	3.26	1.16	2.65	1.18	t(57) 5.9290	0.0000

(Table 3: Results from paired sample t-test on likelihood to buy before and after treatment)

To test if the difference in likelihood is caused by the treatment, the difference between the test group and the negative control group is compared. In total, the difference in likelihood to buy from the treatment group (H&M, Asos, Zalando) (M=0.79, SD=0.73) is bigger than the difference in the negative control group (Zara) (M=0.03, SD=1.14). The difference in difference is significant: t(74)=3.36, p<0.01. We can conclude that the difference in likelihood to buy is caused by the treatment. When looking at the brands individually (table 3), it is seen that the differences for H&M and Zalando are significant but not for Asos.

	Sample Mean	Control Mean	Sample Std. Dev.	Control Std. Dev.	T value	P value	Cohen's d
H&M vs. Zara	0.79	0.03	0.58	1.14	t(35) 2.5875	0.0070	0.88
Asos vs. Zara	0.61	0.03	0.95	1.14	t(34) 1.6521	0.0539	0.56
Zalando vs. Zara	0.96	0.03	0.63	1.14	t(37) 3.2203	0.0013	1.05
Total vs. Zara	0.79	0.03	0.73	1.14	t(74) 3.3627	0.0006	0.81

(Table 4: Results from independent samples t-test of the difference in likelihood to buy between sample and control group (Zara))

4.3 H2: The negative effect of greenwashing information is stronger for those participants practising more pro-environmental behaviour

The reliability of the general ecological behaviour scale has been tested through Cronbach alpha and although the reliability was lower than expected (0.44), the mean of the variables was used to compute the overall pro-environmental behaviour scale. When the difference in likeliness to buy with the GEB scale as an explaining variable is regressed, it is found that the explaining power of this model is very low (R-squared = 0.008) and that the general ecological behaviour scale is not a significant predictor of the difference in likelihood to buy. The difference in likelihood to buy before and after greenwashing information is not affected by the extent to which someone is environmentally conscious.

4.4 H3: The impact of information on greenwashing practice will be stronger with personal involvement instead of neutral involvement (social circle).

For this hypothesis, the effect of neutral involvement versus personal involvement on the difference in likelihood to buy is tested. It is found that, in total, the difference in likelihood to buy with personal involvement (M=0.83, SD=0.75) is bigger than the difference in likelihood to buy with neural involvement (M=0.66, SD=0.94). Although there is a difference, this difference is not significant: t(53)=1.34, p>0.01 and thus we cannot reject the null hypothesis. When looking at the brands separately (table 5), we find the same results.

	Personal involvement		Neutral involvement		T-test	
	Mean	Std. Dev.	Mean	Std. Dev.	T value	P value
H&M	0.811	0.59	0.611	0.91	t(17) 0.9137	0.1868
Asos	0.67	1.03	0.39	0.78	t(14) 1.6560	0.0600
Zalando	0.96	0.63	0.89	1.09	t(20) 0.2875	0.3883
Total	0.83	0.75	0.66	0.94	t(53) 1.3442	0.0923

(Table 5: Results from paired sample t-test ondifference in likelihood to buy between personal and neutral involvement)

4.5 Exploratory research

When a regression on the difference in likelihood to buy on age, gender, income, clothes expenditure and time spend on information is executed, it is found that the explaining power of this model is very low ($F_{5,39} = 1.67$, adj R-squared = 0.07) and thus the group of independent variables does not reliably predict the likeliness to buy. When looking at the individual dependent variables we see that only gender can significantly predict the difference in likelihood to buy with a regression coefficient of -0.82 ($t(39) = -2.68$ $p < 0.05$). The change of gender from female to male results in the difference between before and after the greenwashing information to decrease by 0.82.

Variable	Coef.	T-value	P-value
Age	-0.00	-0.03	0.980
Gender	-0.82	-2.68	0.011
Income	0.14	0.82	0.418
Exp. Clothes	-0.25	-1.59	0.121
Time on info	0.00	1.55	0.130
Cons	2.09	3.50	0.001

(Table 6: Results linear regression model on the difference in likeliness to buy)

Although hypothesis 3 was not significant, it could be argued that this is due to small sample size and that more power is needed. If it is assumed that the effect is significant with a bigger sample size we can interpret that the difference in likelihood to buy for neutral involvement is smaller than the difference in personal involvement. When interpreting the effect size, we find a small effect with a Cohen's d of 0.23.

Chapter 5: Discussion and Conclusion

5.1 Main findings

We see a clear main result from this study: greenwashing information significantly decreases the likelihood to buy. When consumers are exposed to more information about a brand's greenwashing, they can make more informed decisions about their consumption which, in the case of greenwashing, results in lower consumption. It is seen that for brands that have higher brand perception in the beginning (H&M and Zalando compared to Asos) the change in likelihood to buy is bigger because the greenwashing information has more impact. Lastly, we find that gender is a significant predictor. Females show a bigger change in the likelihood to buy than males.

The third hypothesis looked at if answering the question for friends (neutral involvement) would omit the need to give a socially desirable answer and thus result in a lower difference in likelihood to buy. Although the difference is lower with neural involvement, this was not significant but could point to a social desirability bias.

The results show that hypothesis 1: Information about a brand's greenwashing practices will decrease the likelihood to buy, is true. Hypothesis 2: The negative effect of greenwashing information is stronger for those participants practising more pro-environmental behaviour, does not hold and for hypothesis 3: The impact of information on greenwashing practice will be stronger with personal involvement instead of neutral involvement (social circle) we do not find a significant result but there is a change visible.

5.2 Implications

More information about greenwashing results in lower consumption of these brands. It is thus of importance that society is given more information about these practices so that they can make a more informed decision about their purchasing behaviour, which results in less wasteful consumption. One of the drivers for greenwashing is consumer demand (Delmas & Burbanno, 2011) When consumers are given greenwashing information this could not only result in less impact of greenwashing practices but could also reduce these practices as companies do not get results from them. Females are the bigger consumer of fast fashion and we see that they also respond more heavily to greenwashing information, this could be used to focus information on this target group for better results. Increased knowledge in this area will be able to transform

public policies and practices that lead to sustainable production and ethical consumption (Bick et al., 2018). Policymakers and NGOs could use this information to change their campaigns or policies to be more information forward in order to get a better result.

5.3 Limitations and future research

Although we find that environmental concern has no significant explaining power on the difference in likelihood to buy, this could be influenced by the simplified GEB scale used. Using the full scale, or a different method to measure pro-environmental behaviour could yield other results. Next to this, we find a lower difference in likeliness to buy for neutral involvement compared to personal involvement but this is not significant. This may be due to a small sample and researching this difference on a bigger scale could result in significant results.

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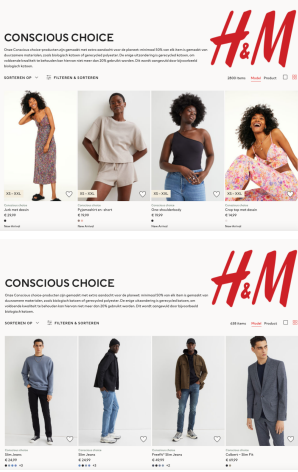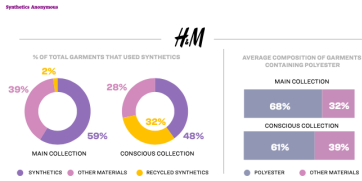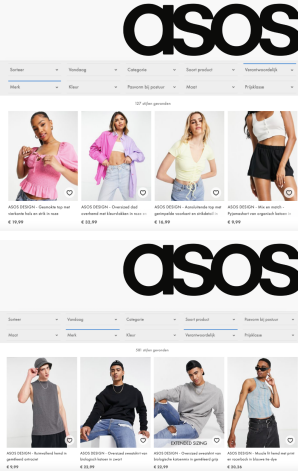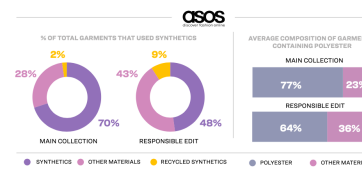
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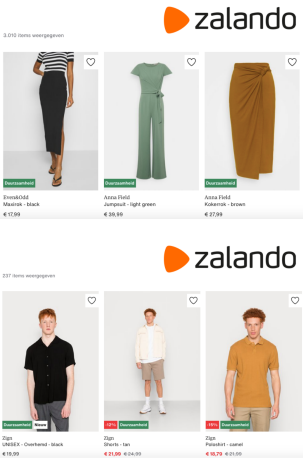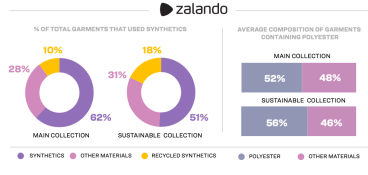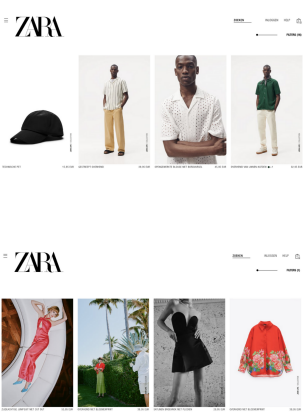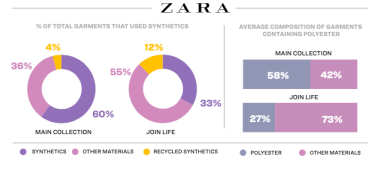
Appendices

Appendix A: Survey variables

	Variable	Measurement
1.	Gender	1 = Female 2 = Male
2.	Age	Number
3.	Pro-environmental behavior using GEB scale (see appendix C)	Scale of 1 to 5 from never to very likely or NA
4.	Income compared to average income	Scale of 1 to 5 from much lower than average to much higher than average
5.	Expenditure on clothing and shoes compared to average expenditure	Scale of 1 to 5 from much lower than average to much higher than average
6.	Consumer perception trough likeliness to recommend to friends or colleagues	Scale of 1 to 10 from not likely at all to highly likely
7.	Likelihood to buy	Scale of 1 to 5 from not likely at all to highly likely
8.	Social circle likelihood to buy	Scale of 1 to 7 from not likely at all to highly likely
9.	Information as shown in appendix B control variable: attention	Time spend on page
10.	Familiarity to this information	Scale of 1 to 5 from not at all to completely familiar
11.	Likeliness to buy considering information	Scale of 1 to 5 from not likely at all to highly likely
12.	Social circle likeliness to buy considering information	Scale of 1 to 5 from not likely at all to highly likely
	(Variables 6 through 12 will be collected for 2 brands)	

Appendix B: Information experiment

Brand	Green washing?	Initial information	Information experiment
Hennes and Mauritz (H&M)	Yes		In **de Conscious Collectie van H&M** had **72%** een synthetische samenstelling, wat **7% meer** is dan de hoofd collectie. Van alle merken in deze studie die een speciale duurzaamheid collectie hebben, heeft **H&M het enige positieve verschil** in gebruikte synthetische stoffen in vergelijking met de hoofd collectie. Van alle producten waarvan **H&M** beweerde dat deze duurzaam waren, bleek **96%** in strijd te zijn met de richtlijnen van de CMA (Competition and Markets Authority). Dit is **het hoogste percentage** in de studie. Hieruit kunnen we concluderen dat het bedrijf over het algemeen **foutief** communiceert over de duurzaamheid van haar producten.
Asos	Yes		In **de Responsible Edit van ASOS** had **57%** een synthetische samenstelling, wat **9% minder** is dan de hoofd collectie. Van alle merken in deze studie die een speciale duurzaamheid collectie hebben, heeft **Asos een gemiddeld verschil** in gebruikte synthetische stoffen in vergelijking met de hoofd collectie. Van alle producten waarvan **Asos** beweerde dat deze duurzaam waren, bleek **89%** in strijd te zijn met de richtlijnen van de CMA (Competition and Markets Authority). Dit is **een van de hoogste percentages** in de studie. Hieruit kunnen we concluderen dat het bedrijf over het algemeen **foutief** communiceert over de duurzaamheid van haar producten.

| Zalando (consisting of: Anna Field, Even & Odd, Friboo, YOURTURN, Zalando Essentials en Zign.) | Yes | |

In **het duurzaamheids assortiment van Zalando** had **69%** een synthetische samenstelling, wat **3% minder** is dan de hoofd collectie. Van alle merken in deze studie die een speciale duurzaamheid collectie hebben, heeft **Zalando een van de kleinste verschillen** in gebruikte synthetische stoffen in vergelijking met de hoofd collectie.

Van alle producten waarvan **Zalando** beweerde dat deze duurzaam waren, bleek **79%** in strijd te zijn met de richtlijnen van de CMA (Competition and Markets Authority). Dit is **een van de hoogste percentages** in de studie.

Hieruit kunnen we concluderen dat het bedrijf over het algemeen **foutief** communiceert over de duurzaamheid van haar producten. |
| Zara | No | |

In **de Join Life Collectie van Zara** had **45%** een synthetische samenstelling, wat **19% minder** is dan de hoofd collectie. Van alle merken in deze studie die een speciale duurzaamheid collectie hebben, heeft **Zara het grootste verschil** in gebruikte synthetische stoffen in vergelijking met de hoofd collectie.

Van alle producten waarvan **Zara** beweerde dat deze duurzaam waren, bleek **18%** in strijd te zijn met de richtlijnen van de CMA (Competition and Markets Authority). Dit is **een van de laagste percentages** in de studie.

Hieruit kunnen we concluderen dat het bedrijf over het algemeen **correct** communiceert over de duurzaamheid van haar producten. |

Appendix C: Simplified GEB scale

Text: Geef voor de volgende 5 handelingen aan hoe vaak u ze uitvoert. Kies "Niet van toepassing" (NVT) als u geen antwoord kunt geven.

Number	Question	Scale: nooit, zelden, soms, vaak, zeer vaak of NVT	Statement orientation
1.	Ik wacht tot ik een volle lading heb voordat ik mijn was doe.		Positive
2.	In de winter houd ik de verwarming aan zodat ik geen trui aan hoef.		Negative
3.	Ik gooi na het wassen mijn kleren in de droger		Negative
4.	Ik praat vaak met vrienden over problemen die verband houden met het milieu.		Positive
5.	Ik koop of verkoop tweedehands kleding		Positive

Appendix D: Survey questions

Number	Question
1	Graag vraag ik om uw toestemming om deel te nemen aan dit onderzoek
2	Hoe identificeert uzelf zich?
3	Wat is uw leeftijd?
4	Geef voor de volgende 5 handelingen aan hoe vaak u ze uitvoert. Kies "NVT" (Niet van toepassing) als u geen antwoord kunt geven.
4.1	Ik wacht tot ik een volle lading heb voordat ik mijn was doe.
4.2	In de winter houd ik de verwarming aan zodat ik geen trui aan hoef.
4.3	Ik gooi na het wassen mijn kleren in de droger
4.4	Ik praat vaak met vrienden over problemen die verband houden met het milieu.
4.5	Ik koop of verkoop tweedehands kleding
5	Uit cijfers van het Centraal Plan Bureau (CPB) blijkt dat het modaal inkomen in 2022 in Nederland 38.000 euro bruto is. Hoe vergelijkt uw inkomen hier mee?
6	Gemiddeld zijn de uitgaven aan kleding en schoenen in Nederland € 1600 per jaar. Hoe vergelijken uw uitgave aan kleding en schoenen hier mee?
7	Op een schaal van 1-10, hoe waarschijnlijk is het dat u [brand] aan een vriend of collega aanbeveelt?
8	Hoe groot is de kans dat u iets van dit merk koopt?
9	Hoe groot is de kans dat een vriend van u iets van dit merk koopt?
10	Hoe bekend was u al met de informatie over [brand]?
11	Als u de gegeven informatie meeneemt, hoe groot is de kans dat u iets van dit merk koopt?
12	Als een vriend van u de gegeven informatie meeneemt, hoe groot is de kans dat deze vriend iets van dit merk koopt?
13	Heeft u nog vragen/opmerkingen/suggesties over deze survey?

Appendix E: Raw data

ID	permission	gender	age	geb_dryer	geb_heating	geb_laundry
1	1	2	22	4	3	4
2	1	2	58	3	2	3
3	1	1	55	1	1	5
4	1	1	22	2	2	4
5	1	1	21	4	3	5
6	1	1	21	3	1	4
7	1	1	23	4	2	5
8	1	1	20	4	3	4
9	1	1	22	2	2	5
10	1	1	22	4	2	5
11	1	1	22	0	2	4
12	1	1	23	0	2	4
13	1	2	24	4	3	4
14	1	2	23	4	1	4
15	1	1	26	4	2	5
16	1	2	24	1	1	5
17	1	1	23	2	2	5
18	1	1	20	4	2	5
19	1	1	21	1	2	5
20	1	2	22	3	3	
21	1	1	22	2	2	4
22	1	1	18	4	4	4
23	1	2	23	2	2	4
24	1	2	27	4	3	5
25	1	1	21	4	2	2
26	1	1	22	2	4	4
27	1	2	26	4	4	5
28	1	1	53	2	2	5
29	1	2	24	4	0	4
30	1	1	52	3	2	4
31	1	1	44	1	3	5
32	1	1	40	3	2	4
33	1	2	57		4	
34	1	1	53		2	4
35	1	2	22	4	2	5
36	1	1	24	2	3	5
37	1	1	23	4	3	4
38	1	1	23	4	1	5
39	1	2	58	4	2	3
40	1	1	21	3	2	3
41	1	1	21	3	3	5
42	1	1	24	2	1	5
43	1	1	22	2	2	5
44	1	1	22	4	2	5
45	1	1	22	3	2	4
46	1	1	23	4	2	5
47	1	2	22	4	4	4
48	1	1	18	2	3	5
49	1	1	21	4	0	5
50	1	1	22	4	4	5
51	1	1	23	4	2	4
52	1	1	27	2	3	5
53	1	1	20	4	3	5

geb_secondhand	geb_talking	income	expenditure	cp_ASOS	cp_HM
2				2	6
1	3	5		2	2
1	3	5		4	
2	2		4	7	5
5	5	1	3	6	8
3	2	1		4	
4	3	1		4	7
4	5	2		2	6
3	2			4	7
1	4	1		3	4
2	4			3	8
2	4	3		3	3
1	5	3		3	
1	5	1		1	
3	4	2		3	
1	2			2	
2	2			3	3
2	3	2	2	3	1
4	3	2		4	3
2	2			3	3
4	4			4	8
3	3	1		2	9
1	2	1		2	5
	4	1		1	
1	2	2		3	7
2	4	1		3	
2	5	4		2	1
4	4	4	4	5	5
1	2	1		1	6
2	3	4		4	1
2	3	5		4	7
4	3	4		4	4
1	3	5		4	1
3	4	4		2	2
1	3	2			
4	3	2		2	
2	4	1		2	
4	4	1		2	
1	3	5		3	5
2	3		2	6	8
5	3	1		2	
3	4	2		4	7
4	3	1		2	6
5	5	1		2	
3	5	1		2	
2	4	1		2	
5	4	2		3	
4	4	1		2	
3	2	1		3	1
4	4			2	
3	4	1		2	1
4	2	4		4	
5	3			2	

cp_ZAL	cp_ZA	ltb_pre_ASOS	ltb_pre_HM	ltb_pre_ZAL	ltb_pre_ZA
			4		
			1		
8	6			4	3
		4	3		
		4	5		
6	7			4	4
8		3		4	
	4	3			4
8			3	5	
			4		
	7		5		5
5		3		3	
3				1	
	4				4
5	3			4	3
7				2	
1		3		1	
		2	3		
	6		3		5
	3	2			2
	10	4			5
6			5	3	
			3		
6				2	
	4	4			2
8	9			5	5
	3	1			4
		2	4		
			5		
4		2		3	
	7		4		4
	6		2		4
	7	1			4
7		2		4	
	4				3
8	8			4	5
3			3	2	
		3	5		
	8		4		4
8		4		5	
3				3	
5	6			3	4
1		2		2	
	5				
3			1	2	
	8				4

info_time_ASOS	info_time_HM	info_time_ZAL	info_time_ZA	info_ASOS
	57			
	9			
		16	18	
28	7			1
18	36			1
		60	30	
16		197		3
24			115	3
	29	18		
	21	34		
	36		63	
14		30		
		42		
			25	
		103	52	
		44		
11		3		5
22	8			2
	26		4	
7			5	1
26			17	2
	23	9		
	65			
		50		
19			7	1
		32	10	
21			45	1
6	17			1
	94			
24		63		1
	22		32	
	60		24	
177			39	1
31		11		1
			33	
		160	38	
	26	41		
39	53			1
	33		43	
218		15		2
		61		
		8	5	
21		5		1
3			3	3
	67	101		
			19	

ltb_sc_pre_ASOS	ltb_sc_pre_HM	ltb_sc_pre_ZAL	ltb_sc_pre_ZA
		4	
		1	
		4	3
		2	
	4	4	
		2	5
	4	4	
	1		4
		2	5
		4	4
		4	5
	4		4
			5
			5
		5	5
			5
	3		1
	4	4	
		5	4
	2		2
	4		5
		4	4
		3	
			2
	4		4
		4	5
			5
	3	4	
		4	
	3		3
		4	
		4	4
	1		5
	3		4
			4
		4	5
		3	4
	4	4	
		4	4
	5		4
			4
			4	5
	1		1
	4		4
		4	3
			5

33

info_HM	info_ZAL	info_ZA	ltb_post_ASOS	ltb_post_HM	ltb_post_ZAL
					3
	1				1
		1	2		3
	3			4	2
	2			3	3
		1	1		3
		1		3	3
			3	1	
	1	1		2	4
	2	2		3	
	1		2	4	
		3		3	2
		1			1
			1		
		1	1		3
		1			2
		5		2	1
	3			1	2
	3		1	3	
			1	3	
			1	3	
	2	1		4	3
	2			3	
		1			1
			2	2	
		1	1		3
			1	1	
	2			3	2
	1				5
		1		1	2
	1		1	2	
	2		2	2	
			1	1	
		1		1	2
			1		
		1	1		2
	1	4		2	1
1				4	4
2			2	3	
		1		2	4
		1			2
		1	2		2
		1		1	1
			3		
3		2		1	1
			2		

ltb_post_ZA	ltb_sc_post_ASOS	ltb_sc_post_HM	ltb_sc_post_ZAL	ltb_sc_post_ZA
			2	
			2	
4			3	4
		2	2	
		4	4	
4			3	4
		4	3	
3	1			3
			2	3
			4	2
4			4	3
		3	3	
			1	
5				5
5			3	5
			4	
		3	1	
			3	
2			3	1
4	3			3
5	3			5
		4	4	
			3	
				2
2	2			2
5			3	5
		2		4
		3	2	
			4	
		3	3	
4			2	
				4
4	1			5
		2	3	
2				4
4			3	4
			3	3
		4	4	
4			3	4
		3	4	
			3	
3			4	3
	1		1	
3	2			3
			3	2
4				4

```
. ttest age_test == age_cv, unpaired

Two-sample t test with equal variances

Variable        Obs         Mean    Std. Err.    Std. Dev.    [95% Conf. Interval]

age_test         33      28.0303     2.130001     12.23592     23.69163    32.36897
  age_cv         20        26.45     2.466059     11.02855     21.28848    31.61152

combined         53     27.43396     1.608782     11.71211     24.20571    30.66222

    diff                 1.580303     3.344019                 -5.133096    8.293702

    diff = mean(age_test) - mean(age_cv)                             t =    0.4726
Ho: diff = 0                                       degrees of freedom =        51

    Ha: diff < 0                 Ha: diff != 0                    Ha: diff > 0
 Pr(T < t) = 0.6807        Pr(|T| > |t|) = 0.6385          Pr(T > t) = 0.3193
```

(Figure 1: Independent samples t-test between test and control group for age)

```
. ttest gender_test == gender_cv, unpaired

Two-sample t test with equal variances

Variable        Obs         Mean    Std. Err.    Std. Dev.    [95% Conf. Interval]

gender~t         33      1.30303     .0812409     .4666937     1.137548    1.468513
gender~v         20          1.2     .0917663     .4103913     1.007931    1.392069

combined         53     1.264151     .0611391     .4450991     1.141466    1.386835

    diff                 .1030303     .1265421                 -.1510135    .3570741

    diff = mean(gender_test) - mean(gender_cv)                       t =    0.8142
Ho: diff = 0                                       degrees of freedom =        51

    Ha: diff < 0                 Ha: diff != 0                    Ha: diff > 0
 Pr(T < t) = 0.7903        Pr(|T| > |t|) = 0.4193          Pr(T > t) = 0.2097
```

(Figure 2: Independent samples t-test between test and control group for gender)

```
. ttest income_test == income_cv, unpaired

Two-sample t test with equal variances

Variable         Obs        Mean    Std. Err.   Std. Dev.   [95% Conf. Interval]

income~t          27    2.185185    .2846352    1.479008    1.600109    2.770261
income~v          15    2.333333    .3737413    1.447494    1.531738    3.134929

combined          42    2.238095    .2240207     1.45182    1.785676    2.690514

   diff                -.1481482    .4727586               -1.103629    .8073326

    diff = mean(income_test) - mean(income_cv)              t =  -0.3134
Ho: diff = 0                                degrees of freedom =       40

    Ha: diff < 0              Ha: diff != 0                 Ha: diff > 0
 Pr(T < t) = 0.3778      Pr(|T| > |t|) = 0.7556        Pr(T > t) = 0.6222
```

(Figure 3: Independent samples t-test between test and control group for income)

```
. ttest expenditure_clothes_test == expenditure_clothes_cv, unpaired

Two-sample t test with equal variances

Variable         Obs        Mean    Std. Err.   Std. Dev.   [95% Conf. Interval]

expend~t          32    2.546875    .1600141    .9051766    2.220524    2.873226
expend~v          20       2.805    .2053847    .9185085    2.375125    3.234875

combined          52    2.646154    .1262184    .9101738     2.39276    2.899548

   diff                 -.258125    .2594657               -.7792771    .2630271

    diff = mean(expenditure_cl~t) - mean(expenditure_cl~v)     t =  -0.9948
Ho: diff = 0                                degrees of freedom =       50

    Ha: diff < 0              Ha: diff != 0                 Ha: diff > 0
 Pr(T < t) = 0.1623      Pr(|T| > |t|) = 0.3246        Pr(T > t) = 0.8377
```

(Figure 4: Independent samples t-test between test and control group for expendiure on clothes)

```
. ttest ltb_pre=ltb_post if brand < 4

Paired t test
─────────────────────────────────────────────────────────────────────────────
Variable  │    Obs        Mean    Std. Err.   Std. Dev.   [95% Conf. Interval]
──────────┼──────────────────────────────────────────────────────────────────
 ltb_pre  │     58    3.101724    .153138    1.166264    2.795071    3.408378
ltb_post  │     58    2.308621   .1337776     1.01882    2.040736    2.576506
──────────┼──────────────────────────────────────────────────────────────────
    diff  │     58    .7931034   .0963917    .7340974    .6000824    .9861245
─────────────────────────────────────────────────────────────────────────────
    mean(diff) = mean(ltb_pre - ltb_post)                        t =   8.2279
Ho: mean(diff) = 0                              degrees of freedom =       57

Ha: mean(diff) < 0           Ha: mean(diff) != 0           Ha: mean(diff) > 0
Pr(T < t) = 1.0000       Pr(|T| > |t|) = 0.0000       Pr(T > t) = 0.0000
```

(Figure 5: Paired sample t-test on likelihood to buy before and after treatment)

```
. ttest ltb_diff == ltb_diff_CV, unpaired

Two-sample t test with equal variances
─────────────────────────────────────────────────────────────────────────────
Variable  │    Obs        Mean    Std. Err.   Std. Dev.   [95% Conf. Interval]
──────────┼──────────────────────────────────────────────────────────────────
ltb_diff  │     58    .7931035   .0963917    .7340974    .6000824    .9861245
ltb_di~V  │     18    .0277777   .2677436     1.13594   -.5371119    .5926674
──────────┼──────────────────────────────────────────────────────────────────
combined  │     76    .6118421    .103194    .8996247    .4062691    .8174151
──────────┼──────────────────────────────────────────────────────────────────
    diff  │           .7653257   .2275903                .3118422    1.218809
─────────────────────────────────────────────────────────────────────────────
    diff = mean(ltb_diff) - mean(ltb_diff_CV)                    t =   3.3627
Ho: diff = 0                                    degrees of freedom =       74

   Ha: diff < 0                Ha: diff != 0                Ha: diff > 0
Pr(T < t) = 0.9994       Pr(|T| > |t|) = 0.0012       Pr(T > t) = 0.0006
```

(FIgure 6: independent samples t-test of the difference in likelihood to buy between sample and control group (Zara))

```
. alpha geb_dryer geb_heating geb_laundry geb_secondhand geb_talking

Test scale = mean(unstandardized items)

Average interitem covariance:      .1452596
Number of items in the scale:             5
Scale reliability coefficient:       0.4437
```

(Figure 7: Chronbach alpha test)

```
. regress ltb_diff geb_mean

      Source |       SS           df       MS            Number of obs   =        58
-------------+----------------------------------        F(1, 56)        =      0.43
       Model |  .232938853         1   .232938853       Prob > F        =    0.5157
    Residual |  30.4843024        56   .544362543       R-squared       =    0.0076
-------------+----------------------------------        Adj R-squared   =   -0.0101
       Total |  30.7172413        57    .53889897       Root MSE        =    .73781

-------------+----------------------------------------------------------------------
    ltb_diff |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------------
    geb_mean |   .1156694   .1768242     0.65   0.516    -.238552    .4698908
       _cons |    .448505   .5356229     0.84   0.406    -.6244766    1.521487
------------------------------------------------------------------------------------
```

(Figure 8: Linear regression model on the difference in likeliness to buy for general ecological behavior measure)

```
. ttest ltb_diff=ltb_sc_diff

Paired t test

------------------------------------------------------------------------------
Variable |     Obs        Mean    Std. Err.   Std. Dev.   [95% Conf. Interval]
---------+--------------------------------------------------------------------
ltb_diff |      54    .8277778    .1015401    .7461642    .6241142    1.031441
ltb_sc~f |      54    .6555556    .1303027    .9575256    .3942014    .9169097
---------+--------------------------------------------------------------------
    diff |      54    .1722222    .1281328    .9415797   -.0847796     .429224
------------------------------------------------------------------------------
    mean(diff) = mean(ltb_diff - ltb_sc_diff)                    t =   1.3441
 Ho: mean(diff) = 0                              degrees of freedom =       53

 Ha: mean(diff) < 0            Ha: mean(diff) != 0            Ha: mean(diff) > 0
 Pr(T < t) = 0.9077        Pr(|T| > |t|) = 0.1846           Pr(T > t) = 0.0923
```

(Figure 9: Paired sample t-test on difference in likelihood to buy between personal and neutral involvement)

```
. regress ltb_diff age gender income expenditure_clothes info_time

    Source  |      SS          df        MS          Number of obs  =        45
------------+----------------------------------      F(5, 39)       =      1.67
     Model  |  4.17355396       5    .834710791      Prob > F       =    0.1642
  Residual  |  19.4642237      39    .499082659      R-squared      =    0.1766
------------+----------------------------------      Adj R-squared  =    0.0710
     Total  |  23.6377776      44    .537222219      Root MSE       =   .70646


           ltb_diff |     Coef.    Std. Err.      t     P>|t|    [95% Conf. Interval]
--------------------+----------------------------------------------------------------
                age |  -.0004118    .016387    -0.03    0.980    -.0335577    .032734
             gender |   -.819052   .3058405    -2.68    0.011    -1.437673   -.2004312
             income |   .1408064   .1721605     0.82    0.418     -.207421    .4890339
 expenditure_clothes |  -.2461601   .1551852    -1.59    0.121    -.5600518    .0677316
          info_time |   .0034392   .0022234     1.55    0.130     -.001058    .0079364
              _cons |   2.085705   .5964164     3.50    0.001     .8793386    3.292071
```

(Figure 10: Linear regression model on the difference in likeliness to buy for age, gender, income and expenditure on clothes)