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# THE TRUST MECHANISMS OF ABILITY, BENEVOLENCE, AND INTEGRITY: A CONNECTION TO PERCEIVED FIRM TRANSPARENCY AND LEGITIMACY OF SUSTAINABLE VERSUS UNSUSTAINABLE COMPANIES

Master's Thesis  
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## Abstract

Trust is a very valuable asset to possess as a company and due to a persistent and debilitating skepticism amongst consumers and stakeholders of the business world, it is gaining attention from scholars and researchers. This paper explores the relationship between transparency, legitimacy and the three factors of trustworthiness (benevolence, integrity, and ability). A hybrid approach is taken including an online questionnaire and semi-structured interviews with six potential customers of *Active Giving* (a sustainable application) to elicit their perspectives on perceived transparency, legitimacy, and the importance of each trust mechanism, for a group of three sustainable and three unsustainable companies. The analysis shows that there is a strong correlation between perceived transparency and legitimacy, but the results for the trust mechanisms seem inconclusive and show weak effects. This may be explained by several points and open avenues for further research, including adding propensity to trust in the model, extending the data collection process, delving into other relationships other than customer-company and altering the model to fit the variables better. Skepticism and the trust process is explored during the interviews and generate interesting insights into the details of what enhances the trustworthiness of a firm.

**Key words:** transparency, legitimacy, factors of trustworthiness, sustainability, consumer skepticism, environmental psychology.

## INTRODUCTION

Humans are social by nature, but specifically require trust to firstly, believe the information that firms choose to disclose and secondly, trust that the company has the capability to govern and to be socially accepted. Interpersonal trust is therefore a vital component of effective working relationships, and a core building block to any successful firm (Poon, 2013). Trust is said to be important in many contemporary organizations, due to a persistent and debilitating skepticism among consumers, stakeholders, and investors in the trustworthiness of the corporate world (Dietz & Gillespie, 2012). The literature on organizational trust argues that trust is a judgment on how confident and reliant you are of another person, given a specific scenario. Building on the most common model of trust from Mayer, Davis and Schoorman (1995), the three dimensions of trustworthiness are incorporated in this study namely, *ability* (technical competence), *benevolence* (motives and interests) and *integrity* (honesty and fair treatment).

This research paper aims to contribute to the comprehension of how firm transparency can be connected to legitimacy success, of both sustainable and unsustainable firms. Particularly, it focuses on the effect that the three most common factors of trustworthiness have on the relationship between transparency and legitimacy. It is expected that the transparency perceived by the consumer will be affected by the factors of trustworthiness. Further, it does not only matter how well the information is disclosed to be perceived as more legitimate. But also, this paper discusses the possibility that the factors of trustworthiness directly impact the relationship between transparency and legitimacy.

Sustainability initiatives and reporting by large firms occasionally amount to little more than reputational greenwashing fed by circumstantial evidence (Thomas & Lamm, 2012). The concept of greenwashing can therefore become a large barrier for sustainable legitimacy. This is the reason why both big, commonly known as *unsustainable* firms and smaller, commonly

known as *sustainable* companies are being studied in this paper to assess whether the type of firm affects the object of study. Additionally, the impact of transparency depends fundamentally on the information that is being made transparent, how, to whom and with what purpose (Gardner et al., 2019). The opportunities created by this information disclosure, could potentially benefit firm legitimacy and sustainable companies could profit from this greatly. For instance, increased supply chain transparency can help transform the sustainability of commodity production systems, rebalance deeply entrenched information asymmetries and help empower vulnerable actors (Gardner et al., 2019).

The value of transparency in Non-Profit Organizations (NPO's) is implicit, due to the transparent disclosure of information which culminates in relevant and reliable information (Burger & Owens, 2010). Information transparency directly affects a firm's strategies and its social welfare. Specifically, low transparency enhances a more greenwashing approach, whereas high transparency can incentivize the elimination of greenwashing. This can also lead to a situation where companies are intrinsically motivated to make extra unobservable investments instead of only focusing on the façade of observable aspects, such as CSR activities (Wu, Zhang, & Xie, 2020). Furthermore, transparency is connected to trust, where if trust is built amongst alliances, intuitively, this can lead to a higher perceived legitimacy. Within a governmental perspective, transparency is seen as a way to increase trust (Grimmelikhuijsen, 2012) and governmental legitimacy (De Fine Licht, Naurin, Esaiasson, & Gilljam, 2014), but there is no research on how this connection would unfold in a sustainable versus unsustainable context, and its further effect on legitimacy.

It is therefore argued that sustainable legitimacy is poorly theorized in development studies literature, as is the case for the legitimacy of Non-Governmental Organizations (NGO's) (Lister, 2003). This paper attempts to bridge these gaps with a hybrid study about both sustainable and unsustainable businesses. Sustainable entrepreneurs and the choice of an

appropriate business model that tackles a triple bottom line, are affected by a range of barriers that impact green growth (Beltramello, Haie-Fayle, & Pilat, 2013). Perhaps including these types of firms in the study would culminate in additional ideas connected to their further growth. At large, the analysis and research would bring upon insights into attitudes of consumers towards transparency and trust mechanisms which can further enhance legitimacy and reputation.

In order to find qualitative insights, this study partly focuses on *Active Giving*, a start-up from Berlin, more specifically, a digital fitness solution that enables people to contribute to social and environmental projects with their fitness routine. Users can download the application and can upload their workouts. The kilometers traversed or the calories burnt directly translate to trees being planted by certain environmental projects. The examination of consumer perspectives towards this sustainable start-up contributes to the understanding of the role of transparency in small sustainable firms, of how potential consumers react to the three factors of trustworthiness, and finally, of how all these concepts relate to legitimacy.

Therefore, the following research question is formulated:

*To what extent do the trust mechanisms of ability, benevolence, and integrity connected to perceived firm transparency relate to legitimacy?*

The structure of this paper will be the following: firstly, the literature review including theories and prior research, as well as the hypotheses will be explained. Then a hybrid methodology of the study will be outlined and in the last section, the findings, conclusions, limitations, and future research of the study will be assessed.



## LITERATURE REVIEW

### Perceived firm legitimacy

Legitimacy is defined as the “a generalized perception or assumption that the actions of an entity are desirable, proper or appropriate within some socially constructed system of norms, values, beliefs and definitions” (Suchman, 1995). There are three dimensions to legitimacy which include pragmatic, moral and cognitive legitimacy (Thomas & Lamm, 2012). Pragmatic legitimacy refers to the ability of an action or attribute to be perceived as beneficial for the stakeholder or organization. Moral legitimacy entails the extent to which an action or attribute conforms to social norms or moral obligations, commonly related to the rightness or wrongness of something. Finally, cognitive legitimacy refers to how congruent the action or attribute is to existing narratives and conceptual maps that individuals employ to comprehend what happens around them (Thomas & Lamm, 2012). The sources of legitimacy on the other hand, refer to the internal and external audiences who observe organizations and then take legitimacy assessments, and a big issue for research on this topic concerns who has collective authority over legitimization in any given setting (Deephouse & Suchman, 2008).

Trust and legitimacy are thus similar concepts but differ in nature. Legitimacy is a generalized and collective perception composed of subjective legitimacy from individuals which is then aggregated and objectified (Bitektine & Haack, 2015). The framework relating trust to legitimacy portrays, on one hand the relationship between institutions and societal actors granting authority and on the other, the relationship between economic and societal actors granting social license to operate. Institutional trust, psychological evaluation and formal and functional legitimacy are part of the framework. Certain actors may be motivated to grant legitimacy and trust and these catalysts include egoism/hedonism, altruism, tradition, value and observation (Stupak, Mansoor, & Smith, 2021).

### **Perceived firm transparency**

Perceived firm transparency, or in other words, how the consumers perceive the company's transparency efforts, is also an important part of the study. Transparency has been studied generally in terms of reducing consumer skepticism (Dapko, 2012) and it is defined as "a process that involves collecting and making accessible for public scrutiny relevant information about the nonprofit, both in terms of governance and management...that satisfies the expectations of internal and external stakeholders" (Rey-Garcia, Martin-Cavanna, & Alvarez-Gonzalez, 2012). The role of transparency as a driver for sustainable behavior is important towards public disclosure of sustainability-focused firms and is therefore crucial in terms of consumer perception. Information disclosure is generally connected to the idea of transparency, although more dimensions are naturally added to it. Information disclosure, honesty and adopting a personal tone are some of the dimensions to transparency that appear to be important in a context of building trust in corporate blogs (Adeline, Robertson, Parackal, & Kenneth R., 2012).

Being upfront and revealing a company as it is, is the general idea of transparency. These can increase persuasiveness of green marketing strategies and can decrease consumer skepticism. Firm transparency is especially important when industry transparency is low, in the situation of a corporate reputation crisis event, when there isn't enough information to make judgements, when the whole category of products is seen as having very similarly attributed products and in products where the quality assessments are hard to monitor (Dapko, 2012). If transparency is defined as a social expectation, then meeting these expectations is becoming increasingly important for business to maintain legitimacy in the public eye (Brønn & Vidaver-Cohen, 2009). Transparency and credibility are also normally tied to the element of trust, both of which help to manage corporate reputation and image (Adeline et al., 2012). Therefore, by way of replication, I hypothesize the following:

*H1. Potential consumer perception of firm transparency relates positively to perceived firm legitimacy, no matter the company type.*

### **Relationship to Greenwashing**

Greenwashing is defined as “intentionally misleading or deceiving consumers with false claims about a firm’s environmental practices and impact” (Nyilasy, Gangadharbatla, & Paladino, 2014). Due to the growing discernment and skepticism amongst consumers, corporations must try to protect the environment whilst demonstrating the truthfulness of their actions and the transparency within their performance. Organizations that claim they are sustainable are generally monitored more in terms of their sustainability performance and are subjected to closer scrutiny by consumers, competitors, and the government (Nyilasy et al., 2014). Therefore, on one hand, stakeholders and society demand transparency while disclosing information about the environmental impact of a company with the purpose of educating awareness, but on the other, real green claims are suffering from greater skepticism, since it is hard for customers to distinguish which green marketing initiatives are legitimately reliable (De Freitas Netto, Sobral, Ribeiro, & Soares, 2020).

Consumer perception of greenwashing can be explained by the attribution theory, which is a term used in psychology that deals with how individuals or social perceivers gather information to explain causes of certain events or situations. It is largely used in areas of consumer behavior, and it shows how consumers go through the same attributional processes when facing corporation behaviors. Thus, attributional processes directly impact attitude and can likely lead to skeptical attributions, which can impede a positive behavior change (Nyilasy et al., 2014). Two types of attributions can be explained regarding the mediating role of trust, namely, stakeholder-driven attributions and values-driven attributions. The former refers to motives relating to support of social causes solely because of pressure from stakeholders, whilst the latter, refers to motives relating to benevolence-motivated giving (Vlachos, Tsamakos,

Vrechopoulos, & Avramidis, 2009). Likewise, the identification of consumer trust as a sub-process regulating the effect of CSR attributions on consumer behavioral responses can be derived from Vlachos et al. (2009). Even though the opportunities of trust are endless, these relationships also come with a downfall, when alliance's members are viewed as *green washers*, this can debilitate the image of others and can have costly consequences (LaFrance & Lehmann, 2005).

### **Trust and trust mechanisms**

Trust is a core concept in the social sciences and is more broadly and extensively dealt within sociology, anthropology, and organizational studies. Trustworthiness is a vital component in order to be trusted, and therefore, it relates to the perceived attributes of a trustee which serves as a base on which the trustor is willing to accept vulnerability (Dirks & Skarlicki, 2009). Green trust is defined as the “consumer’s willingness to depend on a product or a service of a brand as a result of his belief in its environmental credibility, benevolence and ability” (Chen, 2013). The literature on organizational trust argues that trust is a judgment on how confident and reliant one is of another, given a specific scenario. Further explaining entails how if the judgment is positive, this increases willingness to take risks and have a relationship with that entity. Examples of such trust can be buying from a company, investing in stocks, or hiring a new employee. Although trust can be positive, it can also bring negative consequences which occur when one or multiple of these attributes are called into question, making third parties wary of such risk-taking. Situations of mistrust can damage relationships, hinder collaborations, complicate monitoring and destroy innovation opportunities (Dietz & Gillespie, 2012). If trust generates behavioral consequences, the dimensions of trust must be explored to find valuable insights regarding transparency and further legitimacy.

Legitimacy can be achieved via trust or control. Research suggests a double-loop relationship between legitimacy and trust, given that these concepts mutually reinforce each

other (Moreno-Luzon, Chams-Anturi, & Escorcía-Caballero, 2018). Mayer et al. (1995) creates a framework in which three trustworthiness attributes conclude whether the trustee could be trusted: *benevolence*, *integrity*, and *ability*. Ability reflects the extent to which a trustee possesses competencies and skills that enables it to have influence within a certain domain (Mayer et al., 1995), additionally, it is a cognitive indicator, alongside integrity and contributes to cognition-based trust (McAllister, 1995). Based on the above reasoning and building on H1, I hypothesize the following:

*H2. The moderator of ability within the trust mechanisms has a positive effect on the relationship between transparency and legitimacy, further strengthening this relationship, no matter the company type.*

Benevolence describes the extent to which a trustee is perceived to want to do good, also reflecting an emotional reason to trust (Colquitt, LePine, Piccolo, Zapata, & Rich, 2012). It effectively indicates the trustworthiness and contributes to affect-based trust (McAllister, 1995). Therefore, the following hypothesis is considered:

*H3. The moderator of benevolence within the trust mechanisms has a positive effect on the relationship between transparency and legitimacy, further strengthening this relationship, no matter the company type.*

Integrity describes the extent to which a trustee is perceived to comply to a set of acceptable principles (Mayer et al., 1995). It typically relates to the perfection of the managers' pattern of word-deed alignment (Simons, 2002). Thus, by way of replication the following is hypothesized:

*H4. The moderator of integrity within the trust mechanisms has a positive effect on the relationship between transparency and legitimacy, further strengthening this relationship, no matter the company type.*

In sum, it is argued that in order for potential consumers to trust firms, they must perceive that the company cares about their interests and well-being (Burke, Sims, Lazzara, & Salas, 2007), that they behave in a principled and consistent manner (Kirkpatrick & Locke, 1991) and that they have the ability to generate a positive difference in them (Conger, 1990), which culminate in a trustworthy relationship (Poon, 2013).

Poon (2013) has investigated these three trust mechanisms within trust-in supervisors, other authors have researched them within an innovation network context, amongst teams, managers, subordinates and online consumers (Svare, Gausdal, & Möllering, 2020; Beatton, 2007; Lleó de Nalda, Guillén, & Gil Pechuán, 2016; Gefen, 2002). These mechanisms have not been studied in connection to transparency and legitimacy within a sustainable context. This sheds light into the literature gap that this study aims to fill and to that end, the following research framework is created:

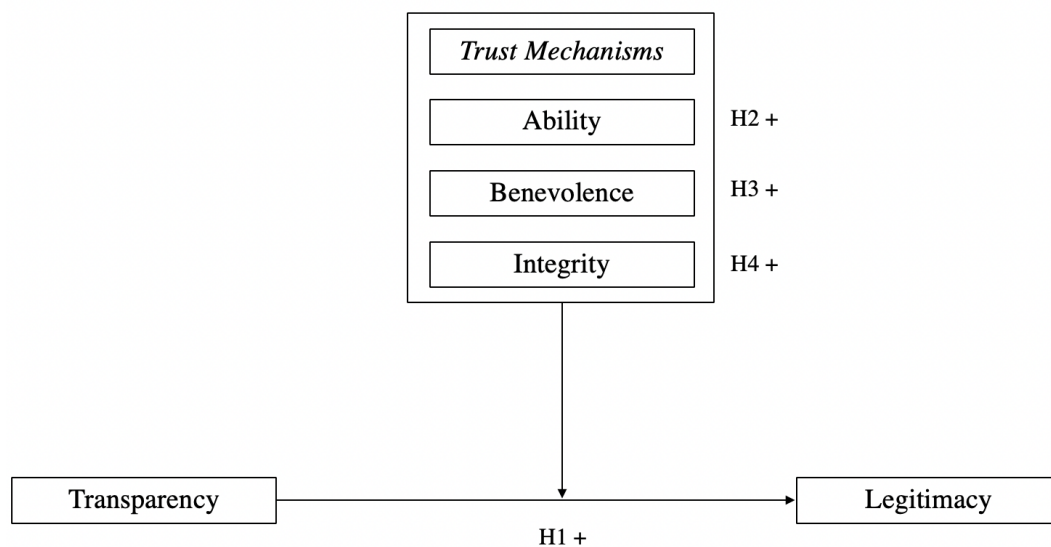


Figure 1. Research framework adapted from Mayer et al., (1995)

## METHODOLOGY

### Research Design

A cross-sectional study was implemented, resulting in a mixed methodology. On one hand, a quantitative methodology based on the analysis of online surveys was carried out and on the other, a qualitative approach based on semi-structured interviews was followed. A cross-sectional study design refers to a type of observational study design where the investigator measures the outcome and exposures of the participants at the same time. As for the choice of methodology, according to Edmonson and McManus (2007), a hybrid methodology should be selected if the researcher is investigating an intermediate theory, moving from a nascent stage towards maturity. Likewise, hybrid strategies enable researchers to test relationships between variables with quantitative data and illuminate novel constructs with qualitative data (Yauch & Steudel, 2003).

### *Quantitative*

The empirical study is based on the research framework shown in Figure 1. This quantitative research is needed to analyze the relationship between the independent variable of transparency, the trust mechanism moderators (ability, benevolence, and integrity) and the dependent variable of legitimacy. The research design can therefore more specifically be explained as a one-way mediation where the relationship between transparency and legitimacy is affected by the moderator(s) in question. This framework is completely adapted from Mayer et al. who don't categorize them as variables but as pieces of a very complex research framework (see Figure 4A in Appendix A). According to Ng, "the mediator is subjected to the direct effect of the independent variable, but also simultaneously, can affect the dependent variables" (2020). The trust mechanisms do not act as a mediator because they are not affected by transparency, they are thus not a consequence of perceived transparency. Each trust mechanism is separable, which means that it may vary independently from the other

mechanisms, but it doesn't imply that the three are unrelated to one another (Mayer et al., 1995). The factors of trustworthiness act as trustee (company) characteristics that lead to trust among the trustor (potential customer). Therefore, I argue that perceived transparency falls from the actions of the organizations and the trust mechanisms (or the company traits) have already taken place prior to the perceived transparency, so the causality lies the opposite way. In summary, transparency and legitimacy are attributed by the audience whereas the trust mechanisms are set by the organization, and the trust mechanisms are therefore tested to be moderators within the framework.

### **Data collection and measurement of constructs**

#### *Survey*

An online questionnaire was used, based on various questions, created with the survey tool *Qualtrics* to obtain primary data. The recruitment of all the participants was done via social media applications. Participation was voluntary amongst the respondents and confidentiality was ensured. The purpose of this online survey was to find out the perspectives of individuals on transparent/sustainable and non-transparent/sustainable companies, as well as how important they considered each of the trust mechanisms in question. In the beginning of the survey, an introductory text was shown with further definitions on transparency and legitimacy for clarity purposes. A seven-point Likert scale with the endpoints 1 = "strongly agree" and 7 = "strongly disagree" was used to create all the questions and was then coded inversely to follow the natural order of a Likert Scale. In the beginning of each section of the survey the logo of the company was shown, and the questions were addressed in this order: level of familiarity, level of transparency, level of legitimacy, level of benevolence, level of integrity, level of ability and level of engagement (see Figure 3A in Appendix A). These questions were subsequently repeated for each of the six popular companies, namely Shell, Nestlé, Volkswagen, Tony's Chocolonely, Patagonia and Ecosia. At the end of the survey, three



demographic questions were added to recognize age, gender and origin of the participants. Three of the organizations were popularly recognized as transparent (i.e., Tony's, Patagonia and Ecosia), and three of them as non-transparent (i.e., Shell, Nestlé and Volkswagen). On one hand, Shell (Pearson, 2017), Nestlé (Schulz, 2019) and Volkswagen (Krall & Peng, 2015) have all participated in transparency scandals which contribute to their poor sustainable and transparency reputation. On the other hand, Tony's Chocolonely (Myers, 2021), Patagonia (Mainwaring, 2011) and Ecosia (Ecosia, 2022) have been praised as having high transparency levels.

A prior pilot study of five people was carried out in order to test the online survey and determine if it was fit to be distributed. Response bias was accounted for. This type of bias refers to conditions or factors that take place during the participation of surveys, impacting how responses are provided, due to the deviation taking on average the same direction amongst participants (Lavrakas, 2008).

### ***Interviews***

Secondly, six semi-structured interviews were conducted to grasp a more in-depth understanding of the perceptions on transparency, attitude towards trust and final opinion on legitimacy of *Active Giving*. A qualitative methodology was also used because a deeper understanding of the attitudes and perspectives of individuals both avid followers of sustainability and not, was necessary to know where the company stood in terms of the research question proposed. As Morgan and Smircich (1980: p.498) suggest, "scientists can no longer remain as external observers, measuring what they see; they must move to investigate from within the object of study and employ research techniques appropriate to that task". Qualitative studies can reach saturation with sample sizes that are quite small, generally around 9-17 participants, according to Hennink and Kaiser (2022). Regarding the hybrid methodology and the time constraints of this study, six interviewees are set as appropriate. The requirements for

participants included: +25 years old, user of applications and social media and physically active. Additionally, three participants were more knowledgeable about sustainability, whereas the other three participants were not focused on this area.

In the beginning, a consent form was administered to be able to use the data provided for the analysis and evaluation (see Figure 1A in Appendix A). During the selection process for the interviewees, the selection bias was also accounted for, and this refers to the deliberate selection of cases which can leave scholars vulnerable to systematic error, and its effects can be assessed, for instance, by extending the analysis to additional cases (Collier & Mahoney, 1996). Mohammady and Janani (2016) state that the best way to reduce this type of bias is the use of random allocation, which in this case includes both sustainable-oriented individuals and unsustainable-oriented individuals, as well as different origins (see Table 1).

Following, in table 1, can be seen an overview of the interviews conducted.

| Interviewee | Age | Position                                       | Sustainability focus | Date, Time, Duration     |
|-------------|-----|--|----------------------|--------------------------|
| I1          | 25  | Voice technology student (RUG)                 | No                   | May 3rd, 11:00am, 26min  |
| I2          | 29  | Communication Science pre-master student (UVA) | No                   | May 4th, 1:00pm, 20min   |
| I3          | 29  | Sustainable entrepreneurship student (RUG)     | Yes                  | May 4th, 12:00pm, 30min  |
| I4          | 26  | Sustainable entrepreneurship student (RUG)     | Yes                  | May 9th, 4:00pm<br>33min |
| I5          | 26  | Carbon capture PHD student (Wetsus)            | Partly               | May 10th, 7:00pm, 24min  |
| I6          | 26  | Sustainable entrepreneurship student (RUG)     | Yes                  | May 11th, 2:00pm, 21min  |

Table 1. Interviewees overview

## Data Analysis

### *Quantitative*

The hypotheses of this study were tested using a non-hierarchical multivariate analysis for the three models on SPSS (both for the transparent and non-transparent groups). These were: the main effect variables, and the two-way interaction variables namely, Transparency \* Benevolence, Transparency \* Integrity and Transparency \* Ability. Before creating the interaction terms, the main effect variables were standardized (Cohen, Cohen, West, & Aiken, 2003). As outlined in the survey, a consent to use the information gathered by the questionnaire was added. Respondents were also told that their data was obtained and analyzed in an anonymous manner, and they naturally had the choice to participate or not and to finish the survey in its entirety or not.

### *Qualitative*

The interviews were transcribed using Otter.ti and coded using Atlas.ti. The first-order codes following the literature review were utilized, namely, transparency, legitimacy and the three trust mechanisms. Further, the second-order codes of trust process, positive ideas of *Active Giving* and possible implementations were drawn. These three new codes were created in the second round of coding and were the origin of new insights for the research. The process was inductive and entailed the analysis of first-order codes, which then were further coded into second-order codes. Coding involves reviewing all the data and identifying key themes or codes, often creating a hierarchical tree (Neale, 2016). Corbin and Strauss (2008) suggest using open coding, or coding initially into multiple exploratory open codes, and then filtering these into fewer and more narrow codes, and finally merging the more focused ones, with a small number of broad and conceptual codes. In this case, being open to new codes provides the necessary insights to carry out research that goes beyond the trust mechanisms and entails what

concepts would enhance the use of Active Giving, and its overall perception. A summary of the codes is created following all these steps (see Figure 5C in Appendix C).

## RESULTS

### Quantitative results

#### *Descriptive statistics*

Overall, 257 individuals answered the survey, however, only 68% of the participants answered the questionnaire in its entirety, leaving 176 valid cases to analyze. These individuals gave answers on 6 companies and as each company is treated separately where the score for one company doesn't impact that of another, there are 1056 total cases ( $176 * 6$ ), 528 for the transparent group and 528 for the non-transparent. A confidence level of 95% was established with a confidence interval of 6 (see Figure 2A in Appendix A). The population chosen was a conglomeration between the most highly probable origins of the participants which were: Germany, Spain, The Netherlands, Italy and UK. With all this information considered a minimum sample of 267 was set, which was calculated using [surveysystem.com](http://surveysystem.com). This goal was highly surpassed.

To check whether the sample met the conditions, missing values and outliers were analyzed. To test distribution, box-and-whisker plots were created, where the distribution of the numerical data and skewness are displayed in data quartiles and averages (see Appendix B), the standard skewness and kurtosis were also analyzed and can be seen in the descriptive statistics tables (see Table 1B and 2B in Appendix B). In most of the cases, the distribution is perfectly normal, some cases have a few outliers, but their existence cannot be explained, so the cases were not eliminated. Histograms and Normal Q-Q plots test the normality and homoscedasticity of the main model (see Appendix B). The variance inflation factors for each

main regression ranged from 1.005 to 1.332, which are all below the allowable threshold of 10, so this way, multicollinearity was tested (O'brien, 2007).

### *Regression results*

|                                   | Model 1             | Model 2                  | Model 4             | Model 5                     |
|-----------------------------------|---------------------|--------------------------|---------------------|-----------------------------|
|                                   | Transparent H1      | Transparent H1,H2,H3, H4 | Non-transparent H1  | Non-transparent H1,H2,H3,H4 |
| Constant                          | 1.415***<br>(0.136) | 1.410***<br>(0.139)      | 1.367***<br>(0.129) | 1.476***<br>(0.133)         |
| Transparency                      | 0.739***<br>(0.026) | 0.737***<br>(0.026)      | 0.791***<br>(0.031) | 0.791***<br>(0.031)         |
| <b>Legitimacy</b>                 |                     |                          |                     |                             |
| Interaction term<br>(Benevolence) |                     | -0.025<br>(0.031)        |                     | -0.104*<br>(0.052)          |
| Interaction term<br>(Integrity)   |                     | 0.047<br>(0.027)         |                     | 0.030<br>(0.041)            |
| Interaction term<br>(Ability)     |                     | 0.080<br>(0.035)         |                     | -0.076<br>(0.047)           |
| R <sup>2</sup>                    | 0.607               | 0.610                    | 0.546               | 0.555                       |
| Adjusted R <sup>2</sup>           | 0.606               | 0.607                    | 0.545               | 0.552                       |
| F                                 | 811.649             | 204.918                  | 631.737             | 163.346                     |
| Observations                      | 528                 | 528                      | 528                 | 528                         |

Standard errors are reported in parenthesis. Unstandardized coefficients are reported.

\*, \*\*, \*\*\* indicate significance at the 90%, 95% and 99% respectively.

Table 2. Regression results

Table 2 shows the results of the performed regression analyses. The results showed that transparency had a positive and significant effect on both transparent and non-transparent companies, confirming this relation as is shown in Figure 1, and giving support for H1. Model 1 was statistically significant ( $R^2 = 0.607$ ,  $f(1, 526) = 811.649$ ,  $p < 0.001$ ). It was found that transparency in the transparent company group significantly impacted legitimacy ( $\beta = 0.739$ ,  $t = 25.134$ ,  $p < 0.001$ ). Model 4 was statistically significant ( $R^2 = 0.546$ ,  $f(1, 526) = 631.737$ ,  $p < 0.001$ ). Transparency in the non-transparent company group also significantly impacted legitimacy ( $\beta = 0.791$ ,  $t = 28.489$ ,  $p < 0.001$ ).

Regarding the moderators, *benevolence*, *integrity* and *ability*, they all behaved in different ways. The main model for the transparent group, Model 2, was statistically significant ( $R^2 = 0.610$ ,  $f(4, 523) = 204.918$ ,  $p < 0.001$ ). It was found that benevolence in this group impacted legitimacy negatively ( $\beta = -0.025$ ,  $t = -0.812$ ,  $p > 0.1$ ). Integrity impacted legitimacy slightly positively ( $\beta = 0.047$ ,  $t = 1.751$ ,  $p > 0.05$ ) and ability impacted legitimacy slightly positively as well ( $\beta = 0.050$ ,  $t = 1.431$ ,  $p > 0.1$ ). The next main model which showcases the regression analysis results for the non-transparent group, Model 5, was statistically significant ( $R^2 = 0.555$ ,  $f(4, 523) = 163.346$ ,  $p < 0.001$ ). It was found that benevolence in the non-transparent company group impacted legitimacy negatively ( $\beta = -0.014$ ,  $t = -2.000$ ,  $p < 0.05$ ). Integrity, in the non-transparent company group impacted legitimacy slightly positively ( $\beta = 0.030$ ,  $t = 0.737$ ,  $p > 0$ ). Lastly, it was found that ability in the non-transparent company group impacted legitimacy negatively ( $\beta = -0.076$ ,  $t = -1.608$ ,  $p > 0.1$ ). These results show that H2 was disproved, as there is evidence that shows that benevolence as a moderator does not strengthen the relationship between transparency and legitimacy. What is more, it affects it negatively, in both the transparent and non-transparent groups. There is enough support to approve H3, as in both transparent and non-transparent groups, integrity as a moderator slightly strengthens the relationship between transparency and legitimacy, although not significantly and still slightly. The results for the

moderator of ability are inconclusive as there is some evidence that supports H4 (transparent group) but other results that disproves it (non-transparent group). Thus, due to lack of evidence H4 is disproved and called to be analyzed again in future research. <sup>1</sup>

### **Qualitative results**

The quantitative results are complemented by the insights of six interviewees on their perspective on transparency, legitimacy, and trust mechanisms for the case study in question, the application of *Active Giving*. This is done to verify the relationships between the variables in a qualitative manner and get in-detail ideas about the way these mechanisms work and what could be implemented as an add-on to increase trust, transparency, and legitimacy. Table 3 showcases an overview of the findings and main quotations used.

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<sup>1</sup> Model 3 and Model 6 are shown in Table 3B in Appendix B. The relationship tested is between legitimacy and engagement and shows interesting results. They are not part of the research framework and are therefore moved to the Appendix.

| Code Group               | Main Findings  | Relevant quotes  |
|--------------------------|--|--|
| Transparency             | -The importance of disclosing the maximum amount of information even if it is a limitation because it will increase trustworthiness and honesty perception.  | <i>"I think it's better to acknowledge your limitations and actually the fact that you are contributing in a small part"</i> (I3)  |
| Trust process            | -Propensity to trust and brand commitment directly impact trust decision<br>-Simplicity can both enhance skepticism or reduce it depending on the propensity to trust<br>-Clarity when communicating, company ability and the <i>look and feel</i> all impact trust positively | <i>"I never committed to any brands of products or something. So the credibility it's less of a concern to me"</i> (I5)<br><i>"If you keep simplifying the problem, then you just create more skeptical souls"</i> (I5)<br><i>"They explain it in a simple way without too many fireworks. I think that's key"</i> (I3)<br><i>"If you feel like there's not time or money put into that, then it doesn't really feel trustworthy"</i> (I1)<br><i>"Usually if I don't understand something, I don't feel like I can fully trust it"</i> (I5)<br><i>"Trust is kind of like a psychological state or perception about someone kind of...walk the talk"</i> (I6) |
| Possible implementations | -More information disclosure to increase transparency<br>-Implement rewards and challenges appealing more to the community feeling<br>-Adding reviews/testimonies to increase trust  | <i>"Where did they plant these trees? How well does this tree planting enhance the whole biodiversity and ecosystem?"</i> (I4)<br><i>"Little running challenges or something like this, that you also get a bounding to the company"</i> (I6)<br><i>"So maybe having some direct photos of maybe social media posts of some people who've used it on the website, maybe that would help"</i> (I1)  |

Table 3. Overview of main findings and quotes



### ***Transparency***

Table 3C shows the main findings for this code group (see Appendix C). In terms of the triple bottom line or People, Planet, Profit (PPP) approach, two of the most important findings stated that only if the sponsors or the donators were following a PPP program, the company could be legitimate (I3). Likewise, I3 indicated that the more the value proposition or the mission of the company was close to the PPP approach followed, the more transparent and legitimate the company was perceived as. In terms of the business model, many interviewees had difficulties understanding it and didn't know how the company made a profit (I1,I3,I5,I6). Even though they didn't know how or how much profit *Active Giving* made, most of the interviewees didn't mind, as long as *Active Giving* was open and transparent about it (I3,I4,I5). Regarding the environmental projects, transparency and openness about who they donate to is also seen as a very important strategy to follow (I1,I3,I6). In terms of impact, I4 finds that *Active Giving* must look out for the creation of long-term impact that does not create additional problems in trying to find a solution. Being honest about *Active Giving*'s own limitations is also an important point which is complemented by a focus on the outputs and outcomes generated, instead of focusing so much on impacts (I3). Information disclosure is said to not only increase trustworthiness for I4 but also honesty perception (I6).

### ***Legitimacy***

Table 4C shows the results for the code group of legitimacy (see Appendix C). When the interviewees are asked about legitimacy, most indicate that *Active Giving* looks like it is relatively new and looks very much like a startup, however, not in a negative way (I2,I6). I3 states that real legitimacy comes from utilizing a PPP approach, because it means they are doing things the right way. The two main dimensions of legitimacy, namely image and social desirability, give compelling qualitative insights. On one hand, the image is seen as professional (I1), attractive (I4) and basic (I3), which adds an interesting layer as this suggests

it positively impacts the legitimacy perception of the interviewees. Alongside this, the social desirability aspect of *Active Giving* is also agreed upon, where motivation is made possible thanks to the community exchanging and sharing information (I2,I4).

| Interview | Transparency decision | Legitimacy decision | Trust decision  |
|-----------|-----------------------|---------------------|-----------------|
| I1        | Partly positive       | Positive            | Positive        |
| I2        | Partly positive       | Partly legitimate   | Positive        |
| I3        | Very positive         | Partly legitimate   | Positive        |
| I4        | Partly positive       | Partly legitimate   | Partly positive |
| I5        | Partly positive       | Positive            | Negative        |
| I6        | Very positive         | Positive            | Positive        |

Table 4. Findings for transparency, legitimacy, and trust decisions

To verify the relationships between transparency, legitimacy, and the trust decision of the participants of the survey, Table 4 has been created to show the results for the qualitative interviews. Generally, when the transparency is positive (even if it is partly) the legitimacy is also positive (even if partly). When the interviewees state they only partly perceive it as legitimate or transparent, it is mainly due to the lack of information or lack of familiarization with the application, which means it is not their ultimate decision and that it could be altered with time (see Limitations and Future Research section). When asked about the trust decision, this usually follows the same pattern as with the transparency and legitimacy, but there is one exception, as can be seen with I5. I5 brings up the concept of not being very trusting generally, which means that the propensity to trust is low, and this directly impacts the final trust decision. This opens avenues for further research.

### ***Trust mechanisms***

Table 5C displays the three trust mechanisms and some key findings within each category (see Appendix C). Benevolence is characterized by caring about the environment and motivating individuals to live a healthier lifestyle (I1,I6). Integrity is way more difficult to

assess (I1,I4,I6), however, it is said that the higher the reliability and the information disclosure, the higher the trust (I4). Depending on whether *Active Giving* holds up what it is promising, two interviewees say they will continue using the app or not, accordingly (I2,I6). In terms of ability, I4 points out the difference between effectiveness and efficiency, where the former is the ultimate goal as it enhances the holistic approach of the business model, whereas the latter is generally used to enhance processes and increase profit, neglecting the impact created.

| Interview | Benevolence  | Integrity  | Ability  |
|-----------|--|--|--|
| I1        | Positive; positively influences perception   | Doesn't know, inclined for negative; positively influences perception  | Doesn't know, inclined for negative; partly and positively influences perception but not use |
| I2        | Positive; positively influences perception   | Doesn't say; positively influences perception and use                  | Positive; highly and positively influences perception  |
| I3        | Positive; positively influences perception   | Positive; positively influences value proposition and hence perception | Partly positive; positively influences value proposition and hence perception                |
| I4        | Positive; positively influences perception   | Doesn't know, inclined for positive; positively influences perception  | Doesn't know, inclined for positive; positively influences perception                        |
| I5        | Negative; negatively influences perception   | Not concerned with it; Doesn't influence perception                    | Doesn't know: Doesn't say  |
| I6        | Positive; positively influences perception, especially if company is leisure-related | Partly positive; Doesn't influence perception                          | Partly positive; Doesn't influence perception  |

Table 5. Findings for decision and impact of the 3 trust mechanisms

Table 5 showcases in detail the decisions and the impacts each trust mechanism has on the overall company perspective. In general, most interviewees find benevolence apparent, and that it positively influences their perspective on the company, which directly clashes with the results from the quantitative part. As for integrity, interviewees don't have a set decision for it, but if it were to influence, they state it would have a positive effect in some cases, but that it also wouldn't influence it. Finally for ability, half of the interviewees don't know, the others have a positive idea of it, and usually positively affects their overall perception.

### ***Trust process***

Table 6C shows the sub-codes for the trust process (see Appendix C). Important concepts revolve around the perception of the greenwashing of sponsors (I3,I5), amongst others. The general skepticism of the monitoring of trees (I1,I5), the business model and the lack of proofs (I6) are some factors that are said to decrease trustworthiness. On one hand, simplifying the problem creates further skepticism (I5), but on the other, it makes it easier to understand and this enhances the trustworthiness (I3). Within the thought patterns the interviewees had, I6 highlighted that reliability was a concept one gained with time, but that trust didn't behave in the same way. I5 expressed low brand commitment and stated that because of this, it made credibility less of concern, while at the same time suggesting *Active Giving* to use third parties to verify the effectiveness of tree planting. In terms of user motivation, good content and services play a big role (I5), but so do extrinsic and intrinsic motivation (I3). An important finding in this section were the enhancers of trustworthiness which are: the feeling that something took time and money (I1), understanding something (I5) and seeing the company *walk the talk* (I6).

### ***Positive ideas of Active Giving***

Table 7C showcases the main positive ideas that the interviewees had of *Active Giving* (see Appendix C), which were the creation of a community feeling (I5), where people are

connected through the workouts they perform. Another interviewee added that it felt an increased awareness with the reforestation projects and a personal contribution (I5). Finally, the idea in itself was something they perceived positively and the value proposition that the company suggests was also well regarded (I2,I3,I5,I6).

### ***Possible implementations***

Table 8 proposes some further actions that *Active Giving* could implement into the core of their business to increase transparency, legitimacy and trustworthiness (see Appendix C). One main idea revolves around more information disclosure, namely, the actual benefits of these tree plantations for ecosystems and the environment (I4). Another idea was to create increased employee focus where employees of all sponsoring companies used the application (I3). Additionally, including challenges and rewards to increase bounding to the company (I6) is seen as something that could positively affect the perception of *Active Giving*. I1 says adding reviews and testimonies would also be enriching to the understanding and therefore, contribute to the positive perception of the application.

## **DISCUSSION AND CONCLUSIONS**

### **Conclusions and recommendations**

In this study it was shown that transparent companies operate with different mechanisms than non-transparent companies. Shell, Nestlé and Volkswagen provided this study with results that showcase that there is a strong correlation between transparency and legitimacy, higher than that of Tony's Chocolonely, Ecosia and Patagonia. This contrasts with the initial assumption that both company types behave in the same manner. Additional findings indicate that the three factors of trustworthiness created by Mayer et al.(1995) do not reach conclusive results as moderators for the relationship between transparency and legitimacy. These three mechanisms all demonstrate different behaviors. *Benevolence* on one hand,

enhances in a slight negative manner the relationship between transparency and legitimacy, in both types of companies. On the other hand, *integrity* enhances the previous relationship positively but again very lightly. Finally, *ability* is a determinant for a stronger relationship amongst the two variables in question with the transparent company group, but not for the non-transparent group. However, interestingly, the coefficients for these trust mechanisms are higher for the transparent group, which means that benevolence, integrity, and ability are better enhancers of the transparency-legitimacy relationship within a sustainable context. A potential explanation could be that consumers of this transparent group have higher propensity to trust. Therefore, it is concluded that transparency is a determinant for legitimacy in all contexts but that the three factors of trustworthiness behave in a rather ambiguous manner when it comes to acting as a moderator, but that they are more able to enhance this relationship when the context is sustainable.

In line with Suchman's definition of legitimacy (1995) and Rey-García et al. 's definition of transparency (2012) modified in this case towards a perception, it is clear that both concepts come from the consumer translated as an individual assumption. The three trust mechanisms, on the other hand, are company traits which lead to trust among the trustor and already exist prior to these two assumptions. The difference in nature between the two is apparent and might help to explain the inconclusive results. Despite this, the fact that benevolence coefficients have been all negative, verifies the difference in nature of benevolence (affection-based trust) with integrity and ability (cognition-based trust) outlined by McAllister (1995). It can be inferred that affection-based trust does not help to enhance the probable cognitive-centered relationship between transparency and legitimacy. And therefore, more knowledge on the background of these three factors of trustworthiness is required for the trustor to increase its trust in this setting.

In this survey, effects of the three moderators were weak and do not show support to the assumptions that they would positively enhance the transparency-legitimacy relationship. A possible reason for this might be firstly, the choice of framework, in other words, the creation of a model with three moderators affecting this relationship. Secondly, the wording chosen for each trust mechanism might have been misleading (i.e., *good at heart* or *perform its job*) and were even questioned for further clarification in the interviews and it can be inferred that a group of participants from the survey might have also needed further explanation. Thirdly, propensity to trust which is part of the framework from Mayer et al. (1995) was not analyzed in the process and it seems that in addition to findings from the qualitative section, it could have altered some results. This calls for further research. Next to contributing insights into trust mechanisms, transparency and legitimacy, results from this study extend to general insights about sustainable contexts and sustainable entrepreneurship in an app-based field.

The qualitative section adds to the quantitative section in various ways. Especially in terms of the difficulty in understanding concepts and the level of clarification needed within the participants. I2 states that walking the talk or following through with promises is part of ability, whereas according to Simons (2002), integrity is defined as following a pattern of word-deed alignment. This sheds light on the confusion between one factor of trustworthiness and another, culminating in a situation where there are unconscious superpositions and misattributions. In order to enhance legitimacy and work towards a possible reduction of greenwashing, I3 states that *Active Giving* sponsors should also contribute to the application and not only donate money to improve their image, as this is perceived as a greenwashing activity. In other words, it is said that there must be a coherence between the value proposition and the actions followed by the company. According to Adeline et al. (2012), information disclosure, honesty and adopting a personal tone are some of the important dimensions of transparency that add to creating trust. In the context of *Active Giving*, a PPP business model,

showing not only the good but also being honest with limitations, showing the impact they are creating, and finally providing information disclosure, especially regarding sponsors, partners, projects, and the business model they follow, are key.

Dapko (2012) has studied transparency in terms of reducing consumer skepticism, but the qualitative results show that this is true, but only one side of the coin. On one hand, missing proofs, or reduced transparency, create a sense of skepticism. On the other hand, transparency that gives a *too good to be true* impression also increases consumer skepticism, so this implies that companies within a sustainable context must be transparent but as stated, include their limitations to give a more raw and real approach that decreases skepticism amongst their consumers. Lee indicates that there is a positive relationship between ENGO's and perceived effectiveness of green alliances (2019). If we treat *Active Giving* as an ENGO, qualitative results show this ability is very hard to measure just by scanning the website. This might be due to the misunderstanding of what *ability/performing its job* really means: Is it about the business model? Is it about profit? Is it about making an impact? Finally, trust decisions amongst interviewees also vary. For instance, I5 has a partly sustainability focus but is not open to trusting and does not have brand commitment, whereas I6 trusts *Active giving* but mainly because the desire to trust is high. This sheds light on the importance of propensity to trust, and alongside the quantitative results, can open an avenue for further research.

### **Limitations**

This research was carried out with a hybrid methodology which reduces single method bias. Bias specific to sustainable-minded individuals has been accounted for, including them, but also participants with no sustainable knowledge. Despite this, there are some limitations that will be explained next. Firstly, the biggest limitation was that propensity to trust was not included in the initial model. Additionally, the trust mechanisms were framed with a sole title, and this might have not been enough in the case of the surveys for a complete understanding



from the participants. Secondly, trust is a concept which evolves within a relationship with time and due to the nature of this cross-sectional study, the analysis of this evolution was not possible. On top of that, although this research is based on consumer's perspectives and their own opinions, it lacks the point of view from other stakeholders, namely the companies themselves and experts in transparency and trust for sustainable enterprises. As Mayer et al. (1995) also state in their limitations, this study is limited to consumer-company relationship and it fails to include a social system, and trust is naturally embedded in such a system. Finally, the generalizability of this study is questionable, as due to time constraints, the data collection had to finish earlier, and this prevented a larger sample to be obtained (quantitative but especially qualitative).

### **Future research**

This study opens several avenues for future research. Future studies could perform similar research but include propensity to trust as a moderator for the three trust mechanisms to see whether this would alter the results. Generally, trust is studied amongst individuals, but little is studied about trust with companies. There might be an issue of attribution between trust-individual and trust-company, which may require an elaboration on the background between trust and legitimacy. This was a first attempt to test the relationships amongst the variables, but future research might benefit from analyzing different relationships. In future studies it would be interesting to add synonyms perhaps of each mechanism and a longer definition to ensure full comprehension and no possible errors. Regarding the time-trust constraint of this study, it enables upcoming investigations to extend the period of data collection to ensure this is being accounted for. In addition, further analyses could delve deeper into understanding the impacts and the reasons behind each transparent action of the companies in question and compare results with the ones from general potential consumers to see if there

are complementarities. As for the limitation of generalizability, this gives future research ground to increase the number of participants.

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## APPENDICES

### APPENDIX A: Research design

#### Figure 1A. Copy of Research Informed Consent




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#### Research informed consent

**Study title:** *“To what extent do the trust mechanisms of ability, benevolence, and integrity connected to firm transparency relate to legitimacy and further growth of a sustainable start-up?”*

#### Institutional contact:

- Campus Frylân, University of Groningen
- Wirdumerdijk 34, 8911 CE, Leeuwarden
- Tel: 058 205 5000

#### Contact information researcher:

- Laura Marimon Rius, l.marimon.rius@student.rug.nl
- 

#### Goal of the interview

This interview aims to get insight into the different trust mechanisms that are utilized in the analysis of Active Giving, as well as the opinion on transparency and legitimacy of the company.

#### To know before the interview

It is permissible to withdraw yourself from the study without justification and consequences until May, 2021. The researcher will review the informed research consent before the interview. If you have any additional questions, you can ask the researcher or contact the researcher at her email addresses.

#### To know during the interview

The researcher will ask multiple questions during the interview and record the interview. You have the right to decline questions if this appears necessary.

#### To know after the interview

The recordings of the interview will be transcribed and analyzed by the researcher. You have the right to ask to be anonymous for personal purposes. The reviewed transcription will be integrated into the final report, and quotes from the transcription will be used. The final report and transcription will be available for you.

#### Voluntary participation

Your participation in this study is voluntary. It is up to you to decide whether to participate in this study. If you choose to participate in this study, you will be asked to sign a consent form. After you sign the consent form, you are still free to withdraw at any time and without giving a reason. Withdrawing from this study will not affect your relationship, if any, with the researcher. If you withdraw from the study before data collection is completed, your data will be returned to you or destroyed.

#### Consent

I have read and I understand the provided information and have had the opportunity to ask questions. I understand that my participation is voluntary and that I am free to withdraw before the deadline, without giving a reason and without cost.

---

Name participant

---

Date

---

Signature

Figure 2A. Determination of the Sample Size

### Determine Sample Size

Confidence Level:  95%  99%

Confidence Interval:

Population:

Sample size needed:

Figure 3A. Copy of the survey

Qualtrics Survey Software

4/6/22, 10:36

**Default Question Block**

Dear Participant,

Thank you for participating in this survey. It is conducted as part of my master's thesis at the University of Groningen Campus Fryslân and takes approximately 5 minutes.

The goal of this survey is to analyse perceptions on transparency, legitimacy and trust mechanisms of 6 well-known organisations. Should the participants need extra information on any of these companies, quickly scanning their websites will be beneficial prior to answering the relevant questions. In any case, a small summary of each company is provided above their logo.

This questionnaire and its data is treated entirely anonymously and confidentially. The data is analysed by myself, as well as shared with my supervisor and co-assessor, and my university. The data will be completely anonymous and will be used without withdrawal. All opinions and perceptions are completely valid, as this survey does not have right or wrong answers.

Please fill out this questionnaire in its entirety and if any questions should arise, please do not hesitate to contact me via this email: [l.marimon.rius@student.rug.nl](mailto:l.marimon.rius@student.rug.nl)

I thank you for your time and support!

Laura

VERY IMPORTANT concepts to answer the questionnaire (you must read this in order to answer):

**Transparency:** a process that involves collecting and making accessible for public scrutiny relevant information about the nonprofit, both in terms of governance and management, that satisfies the expectations of internal and external stakeholders.

**Legitimacy:** the perception that a company is acting in a socially desirable way.

Please take a look at this company and answer a few questions on it.

Shell is a British publicly traded multinational oil and gas company with headquarters in London, United Kingdom.



How familiar are you with Shell?

- Very familiar
- Familiar
- Somewhat familiar
- Neither familiar nor non-familiar
- Somewhat non-familiar
- Non-familiar
- Strongly non-familiar

How would you judge the transparency of Shell?

- Very transparent
- Transparent
- Somewhat transparent
- Neither transparent nor non-transparent
- Somewhat non-transparent
- Non-transparent
- Strongly non-transparent

How would you judge the legitimacy of Shell?

- Very legitimate
- Legitimate
- Somewhat legitimate
- Neither legitimate nor illegitimate
- Somewhat illegitimate
- Illegitimate
- Strongly illegitimate

Do you think Shell looks out for what is important to you?

- Every time
- Usually
- Frequently
- Neutral
- Occasionally
- Rarely
- Never

Do you ever have to wonder if Shell will stick to its word?

- Every time
- Usually



- Frequently
- Neutral
- Occasionally
- Rarely
- Never

How capable of doing its job do you think Shell is?

- Very capable
- Capable
- Somewhat capable
- Neither capable nor incapable
- Somewhat incapable
- Incapable
- Strongly incapable

How inclined would you be to engage with Shell?

- Very inclined
- Inclined
- Somewhat inclined
- Neither inclined nor disinclined
- Somewhat disinclined
- Disinclined
- Strongly disinclined

Please take a look at this company and answer a few questions on it.

Tony's Chocolonely is a dutch confectionary company, founded in 2005, which produces



How familiar are you with Tony's Chocolonely?

- Very familiar
- Familiar
- Somewhat familiar
- Neither familiar nor non-familiar
- Somewhat non-familiar
- Non-familiar
- Strongly non-familiar

How would you judge the transparency of Tony's Chocolonely?

- Very transparent
- Transparent
- Somewhat transparent
- Neither transparent nor non-transparent
- Somewhat non-transparent
- Non-transparent
- Strongly non-transparent

How would you judge the legitimacy of Tony's Chocolonely?

- Very legitimate
- Legitimate
- Somewhat legitimate
- Neither legitimate nor illegitimate
- Somewhat illegitimate
- Illegitimate
- Strongly illegitimate

Do you think Tony's Chocolonely looks out for what is important to you?

- Every time
- Usually
- Frequently
- Neutral
- Occasionally
- Rarely
- Never

Do you ever have to wonder if Tony's Chocolonely will stick to its word?

- Every time
- Usually
- Frequently
- Neutral
- Occasionally
- Rarely
- Never

How capable of doing its job do you think Tony's Chocolonely is?

- Very capable
  
- Capable
- Somewhat capable
- Neither capable nor incapable
- Somewhat incapable
- Incapable
- Strongly incapable

How inclined would you be to engage with Tony's Chocolonely?

- Very inclined
- Inclined
- Somewhat inclined
- Neither inclined nor disinclined
- Somewhat disinclined
- Disinclined
- Strongly disinclined

Please take a look at this company and answer a few questions on it.

Nestlé is a Swiss multinational food and drink processing conglomerate corporation with headquarters in Vevey, Vaud, Switzerland.



How familiar are you with Nestlé?

- Very familiar
- Familiar
- Somewhat familiar
- Neither familiar nor non-familiar
- Somewhat non-familiar
- Non-familiar
- Strongly non-familiar

How would you judge the transparency of Nestlé?

- Very transparent
- Transparent
- Somewhat transparent
- Neither transparent nor non-transparent
- Somewhat non-transparent
- Non-transparent
- Strongly non-transparent

How would you judge the legitimacy of Nestlé?

- Very legitimate
- Legitimate
- Somewhat legitimate
- Neither legitimate nor illegitimate
- Somewhat illegitimate
- Illegitimate
- Strongly illegitimate

Do you think Nestlé looks out for what is important to you?

- Every time
- Usually
- Frequently
- Neutral
- Occasionally
- Rarely
- Never

Do you ever have to wonder if Nestlé will stick to its word?

- Every time
- Usually
- Frequently
- Neutral
- Occasionally
- Rarely
- Never

How capable of doing its job do you think Nestlé is?

- Very capable
- Capable
- Somewhat capable
- Neither capable nor incapable
- Somewhat incapable
- Incapable
- Strongly incapable

How inclined would you be to engage with Nestlé?

- Very inclined
- Inclined
- Somewhat inclined
- Neither inclined nor disinclined
- Somewhat disinclined
- Disinclined
- Strongly disinclined

Please take a look at this company and answer a few questions on it.

The Volkswagen Group, with its headquarters in Wolfsburg, Germany is one of the leading manufacturers of automobiles and commercial vehicles.



# Volkswagen

How familiar are you with Volkswagen?

- Very familiar
- Familiar
- Somewhat familiar
- Neither familiar nor non-familiar
- Somewhat non-familiar
- Non-familiar
- Strongly non-familiar

How would you judge the transparency of Volkswagen?

- Very transparent
- Transparent
- Somewhat transparent
- Neither transparent nor non-transparent
- Somewhat non-transparent
- Non-transparent
- Strongly non-transparent

How would you judge the legitimacy of Volkswagen?

- Very legitimate
- Legitimate
- Somewhat legitimate
- Neither legitimate nor illegitimate
- Somewhat illegitimate
- Illegitimate
- Strongly illegitimate

Do you think Volkswagen looks out for what is important to you?

- Every time
- Usually
- Frequently
- Neutral
- Occasionally
- Rarely
- Never

Do you ever have to wonder if Volkswagen will stick to its word?

- Every time
- Usually
- Frequently
- Neutral
- Occasionally
- Rarely
- Never

How capable of doing its job do you think Volkswagen is?

- Very capable
  
- Capable
- Somewhat capable
- Neither capable nor incapable
- Somewhat incapable
- Incapable
- Strongly incapable

How inclined would you be to engage with Volkswagen?

- Very inclined
- Inclined
- Somewhat inclined
- Neither inclined nor disinclined
- Somewhat disinclined
- Disinclined
- Strongly disinclined

Please take a look at this company and answer a few questions on it.

Patagonia is an American designer and retailer of outdoor clothing and gear for the silent sports: climbing, surfing, skiing, snowboarding and trail running.



How familiar are you with Patagonia?

- Very familiar
- Familiar
- Somewhat familiar
- Neither familiar nor non-familiar
- Somewhat non-familiar
- Non-familiar
- Strongly non-familiar

How would you judge the transparency of Patagonia?

- Very transparent
- Transparent
- Somewhat transparent
- Neither transparent nor non-transparent
- Somewhat non-transparent
- Non-transparent
- Strongly non-transparent

How would you judge the legitimacy of Patagonia?

- Very legitimate
- Legitimate
- Somewhat legitimate
- Neither legitimate nor illegitimate
- Somewhat illegitimate
- Illegitimate
- Strongly illegitimate

Do you think Patagonia looks out for what is important to you?

- Every time
- Usually
- Frequently
- Neutral
- Occasionally
- Rarely
- Never

Do you ever have to wonder if Patagonia will stick to its word?

- Every time
- Usually
- Frequently
- Neutral
- Occasionally
- Rarely
- Never

How capable of doing its job do you think Patagonia is?



- Very capable
- Capable
- Somewhat capable
- Neither capable nor incapable
- Somewhat incapable
- Incapable
- Strongly incapable

How inclined would you be to engage with Patagonia?

- Very inclined
- Inclined
- Somewhat inclined
- Neither inclined nor disinclined
- Somewhat disinclined
- Disinclined
- Strongly disinclined

Please take a look at this company and answer a few questions on it.

Ecosia is a search engine based in Berlin, Germany which donates 80% of its profits to nonprofit organisations that focus on reforestation.



How familiar are you with Ecosia?

- Very familiar
- Familiar
- Somewhat familiar
- Neither familiar nor non-familiar
- Somewhat non-familiar
- Non-familiar
- Strongly non-familiar

How would you judge the transparency of Ecosia?

- Very transparent
- Transparent
- Somewhat transparent
- Neither transparent nor non-transparent
- Somewhat non-transparent
- Non-transparent
- Strongly non-transparent

How would you judge the legitimacy of Ecosia?

- Very legitimate
- Legitimate
- Somewhat legitimate
- Neither legitimate nor illegitimate
- Somewhat illegitimate
- Illegitimate
- Strongly illegitimate

Do you think Ecosia looks out for what is important to you?

- Every time
- Usually
- Frequently
- Neutral
- Occasionally
- Rarely
- Never

Do you ever have to wonder if Ecosia will stick to its word?

- Every time
- Usually
- Frequently
- Neutral
- Occasionally
- Rarely
- Never

How capable of doing its job do you think Ecosia is?

- Very capable
- Capable
- Somewhat capable
- Neither capable nor incapable
- Somewhat incapable
- Incapable
- Strongly incapable

How inclined would you be to engage with Ecosia?

- Very inclined
- Inclined
- Somewhat inclined
- Neither inclined nor disinclined
- Somewhat disinclined
- Disinclined
- Strongly disinclined

What is your gender?

- Female
- Male
- Diverse

What is your age?

- Less than 20
- 20-30
- 31-40
- 41-50
- 51-60
- More than 60

What is your nationality?



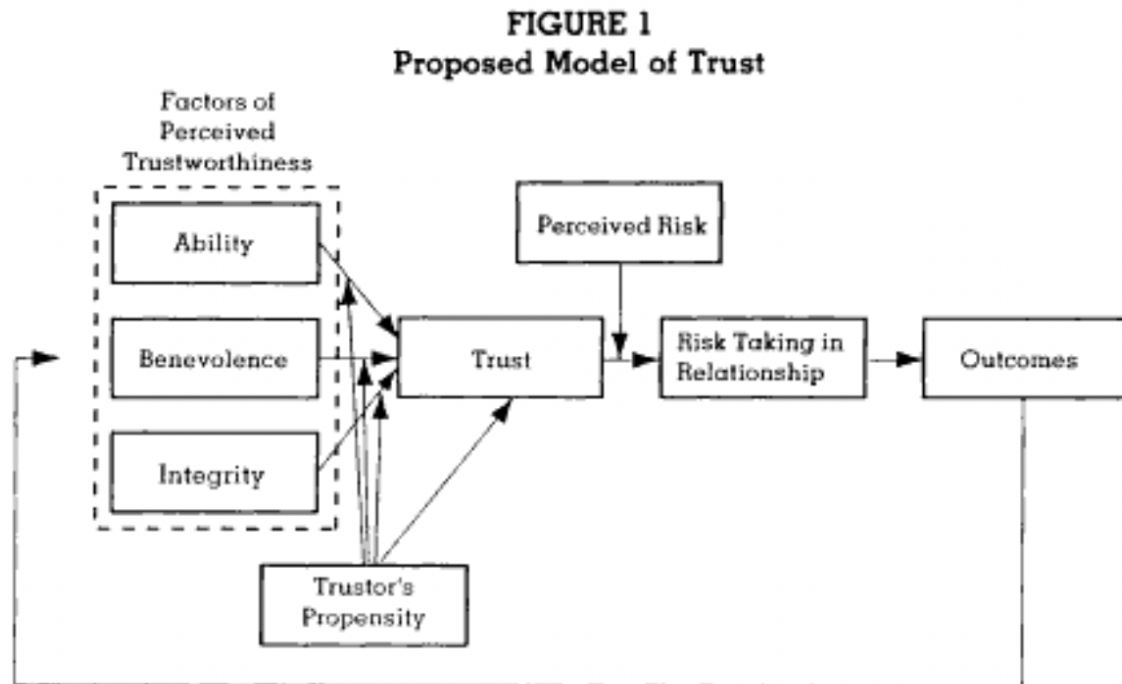


IGNORE if you are not from Survey Circle

For SurveyCircle users (www.surveycircle.com): The Survey Code is: NQS3-9SMF-Z859-CURH

Powered by Qualtrics

Figure 4A. Original proposed model of Trust by Mayer et al. (1995)



## APPENDIX B: Quantitative Analysis

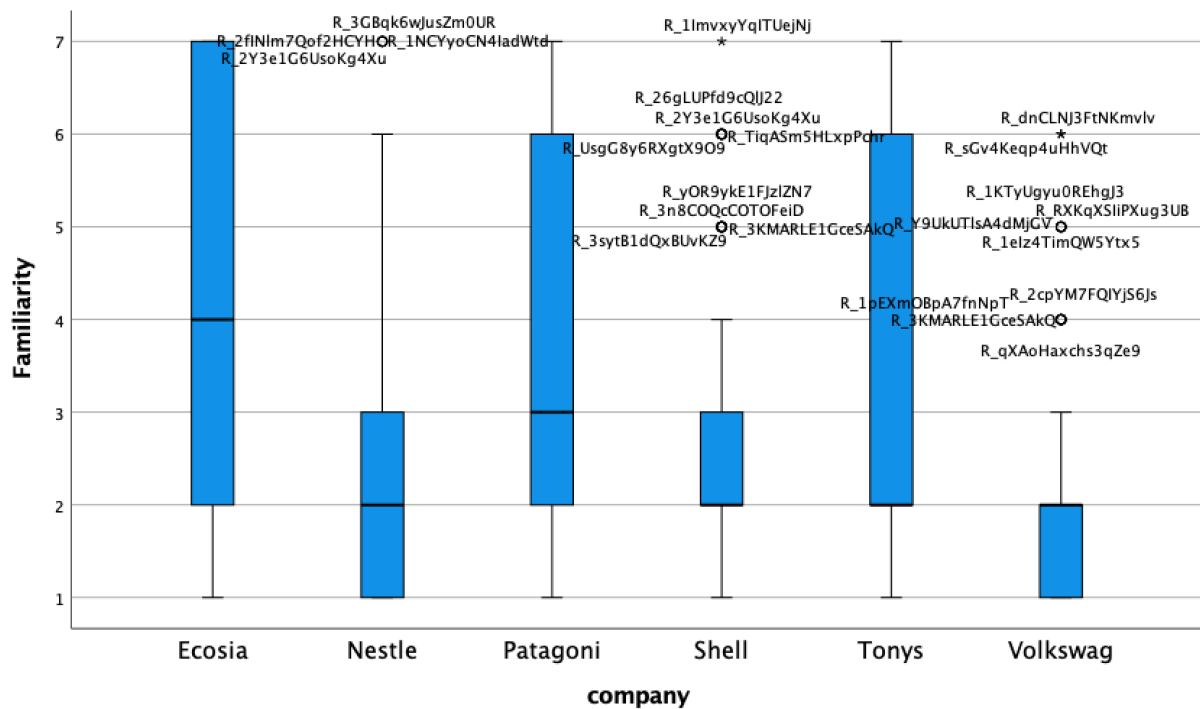
Table 1B. Transparent dataset descriptive statistics

| Variables    | N   | Min | Max | Mean | Std<br>Deviation | Skewness | Kurtosis |
|--------------|-----|-----|-----|------|------------------|----------|----------|
| Familiarity  | 528 | 1   | 7   | 4.30 | 2.232            | -0.394   | -1.431   |
| Transparency | 528 | 1   | 7   | 5.06 | 1.291            | -0.248   | 0.017    |
| Legitimacy   | 528 | 1   | 7   | 5.16 | 1.224            | -0.259   | -0.299   |
| Benevolence  | 528 | 1   | 7   | 4.84 | 1.290            | -0.273   | 0.055    |
| Integrity    | 528 | 1   | 7   | 3.73 | 1.501            | 0.029    | -0.330   |
| Ability      | 528 | 1   | 7   | 5.25 | 1.195            | -0.211   | -0.698   |
| Engagement   | 528 | 1   | 7   | 5.11 | 1.345            | -0.227   | -0.463   |

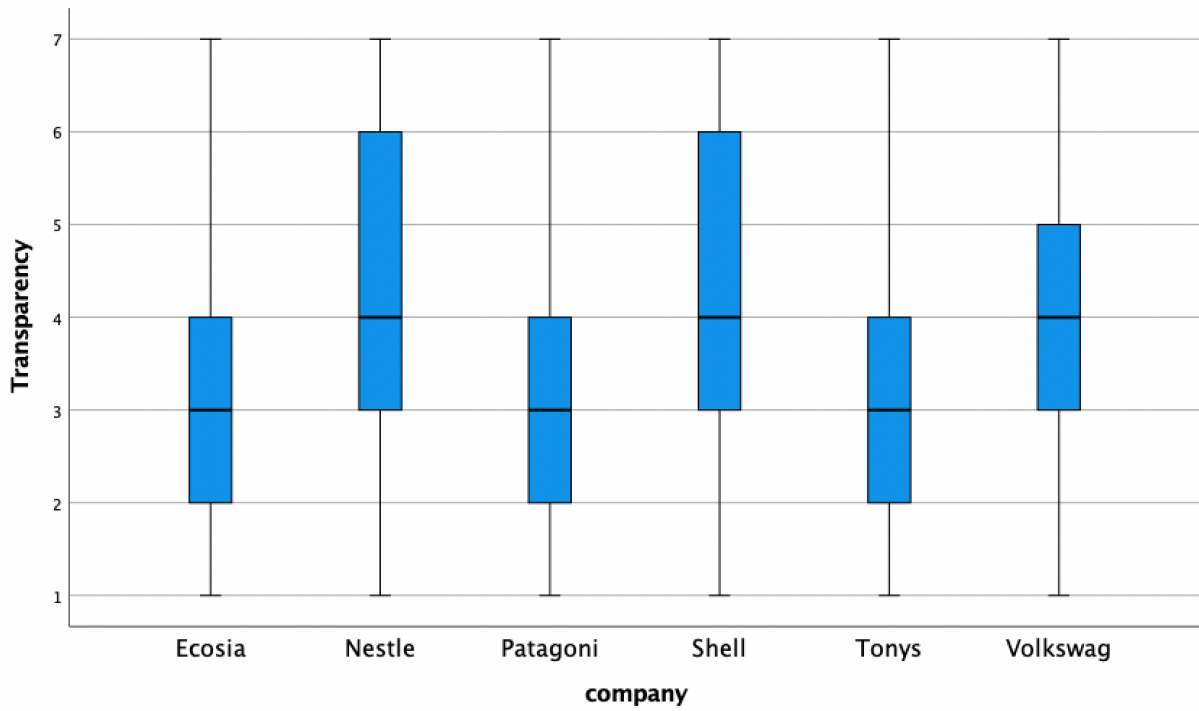
Table 2B. Non-transparent dataset descriptive statistics

| Variables    | N   | Min | Max | Mean | Std<br>Deviation | Skewness | Kurtosis |
|--------------|-----|-----|-----|------|------------------|----------|----------|
| Familiarity  | 528 | 1   | 7   | 5.78 | 1.286            | -1.415   | 2.096    |
| Transparency | 528 | 1   | 7   | 3.80 | 1.579            | 0.006    | -0.870   |
| Legitimacy   | 528 | 1   | 7   | 4.37 | 1.690            | -0.412   | -0.700   |
| Benevolence  | 528 | 1   | 7   | 3.54 | 1.651            | 0.191    | -0.831   |
| Integrity    | 528 | 1   | 7   | 4.20 | 1.655            | -0.177   | -0.695   |
| Ability      | 528 | 1   | 7   | 5.14 | 1.507            | -0.877   | 0.201    |
| Engagement   | 528 | 1   | 7   | 4.13 | 1.699            | -0.190   | -0.750   |

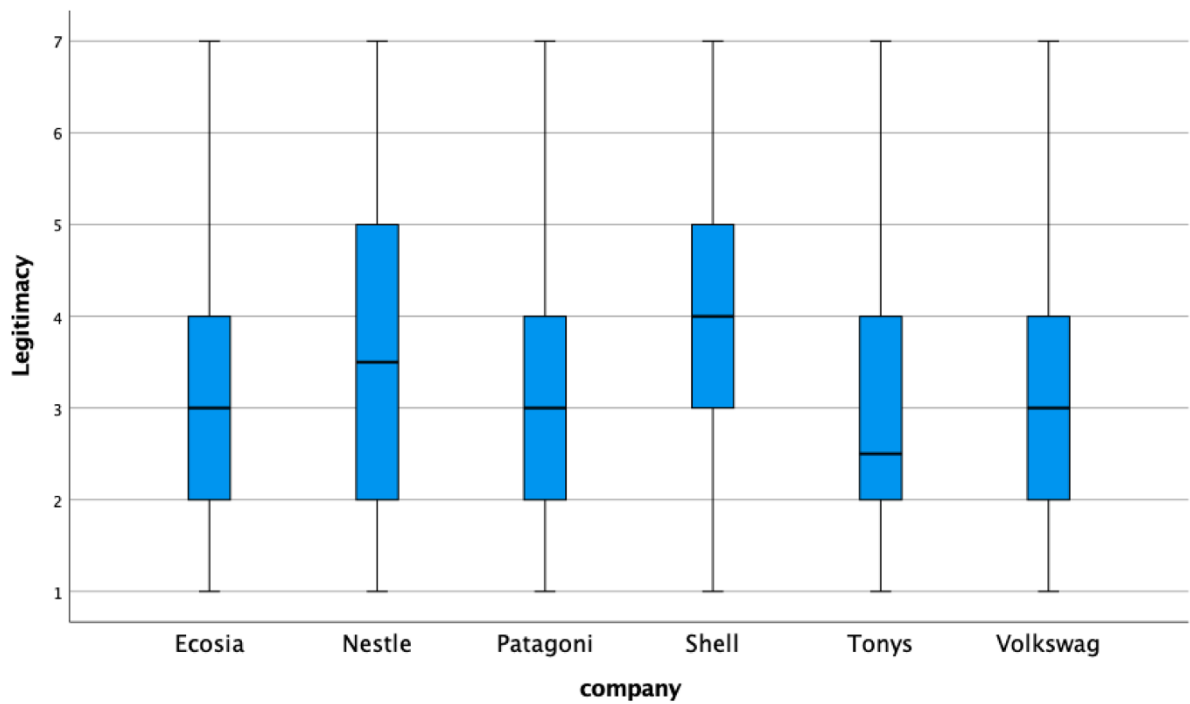
Graph 1B. Box and whisker plot Familiarity



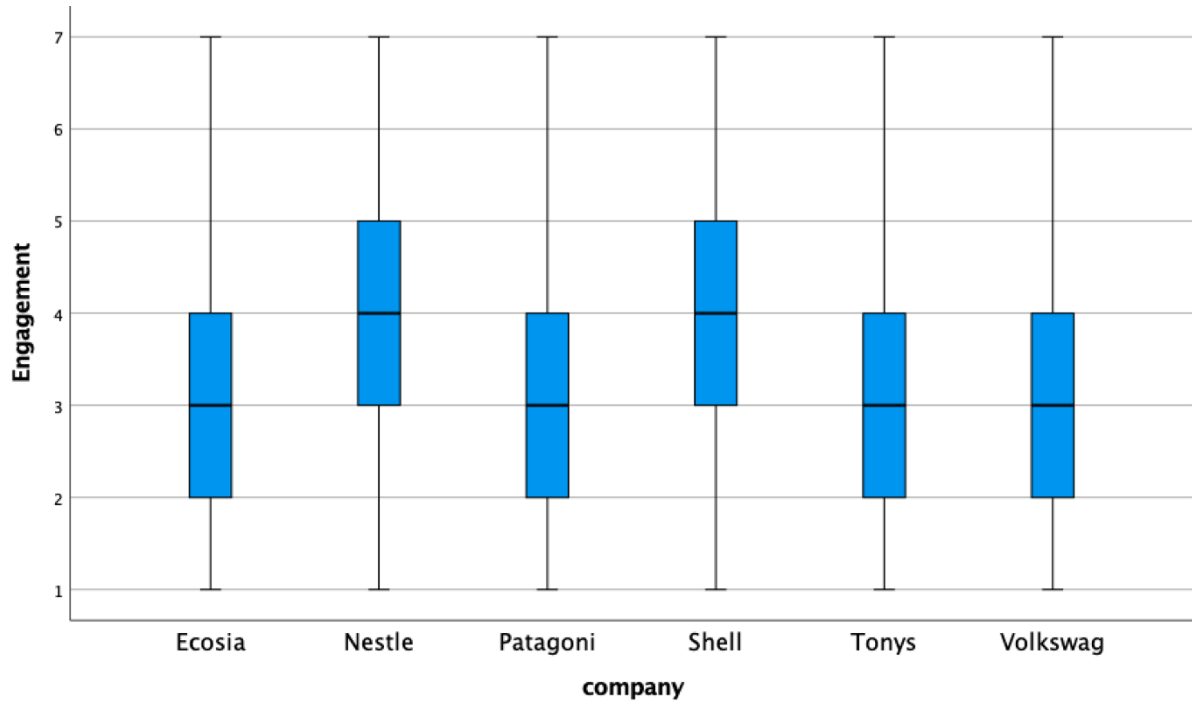
Graph 2B. Box and whisker plot Transparency



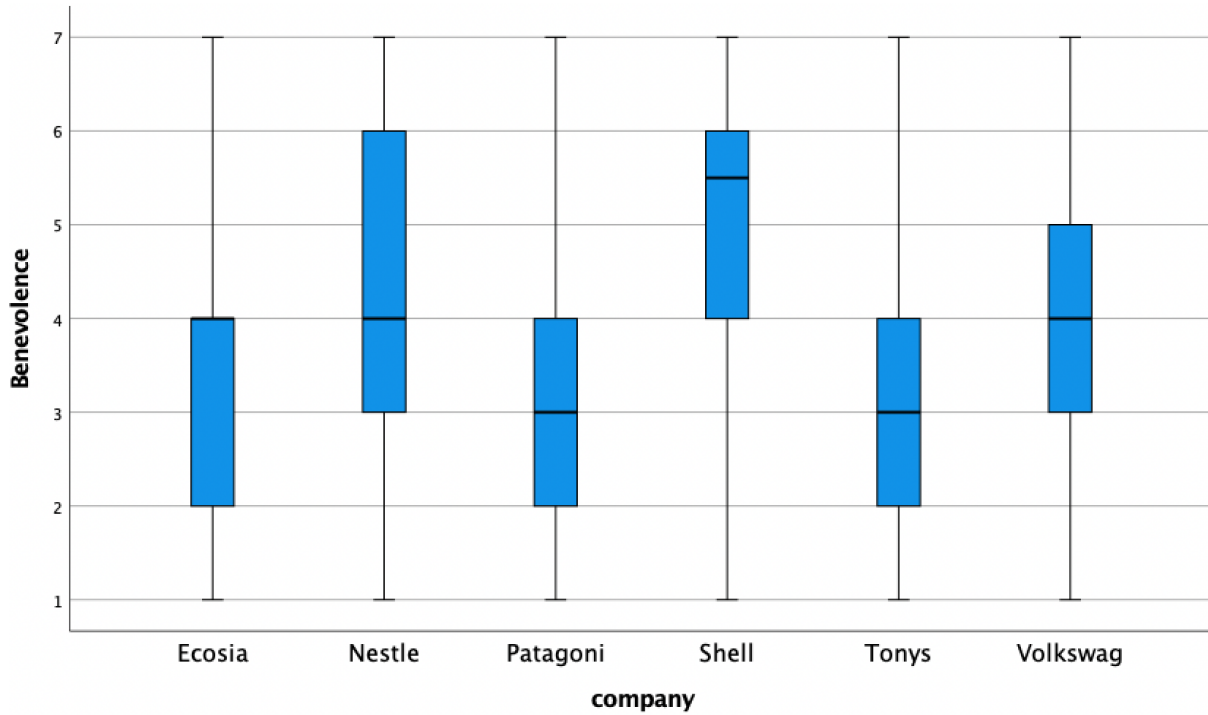
Graph 3B. Box and whisker plot Legitimacy



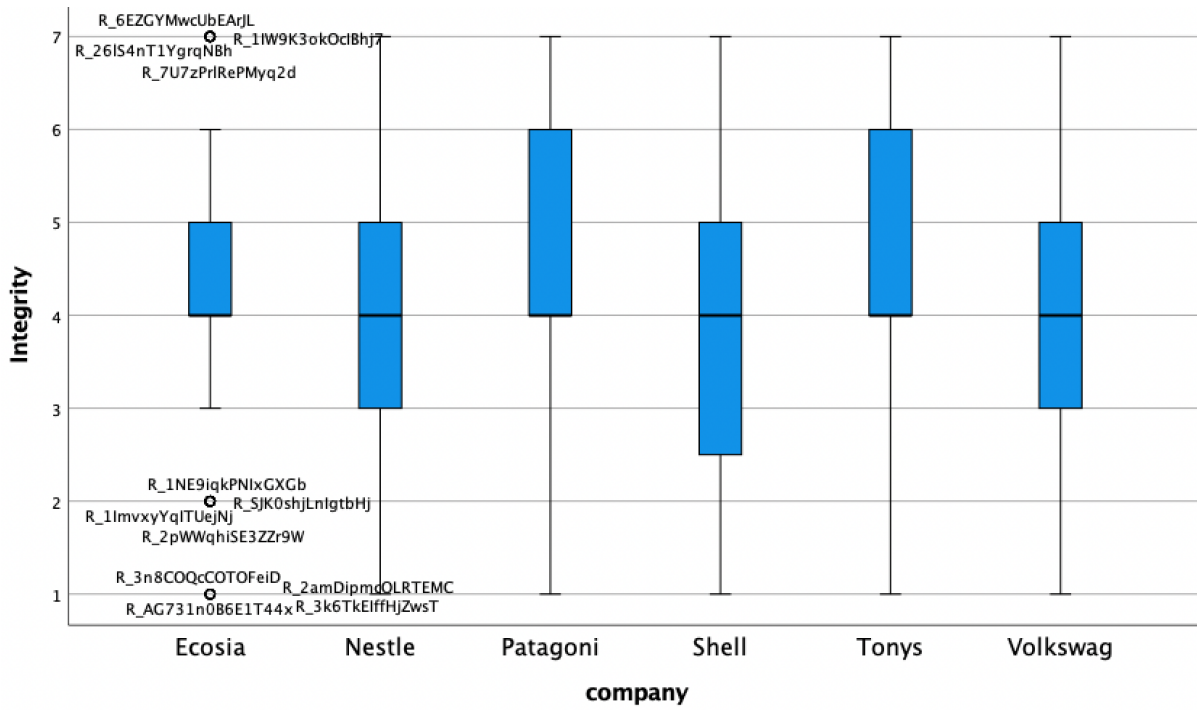
Graph 4B. Box and whisker plot Engagement



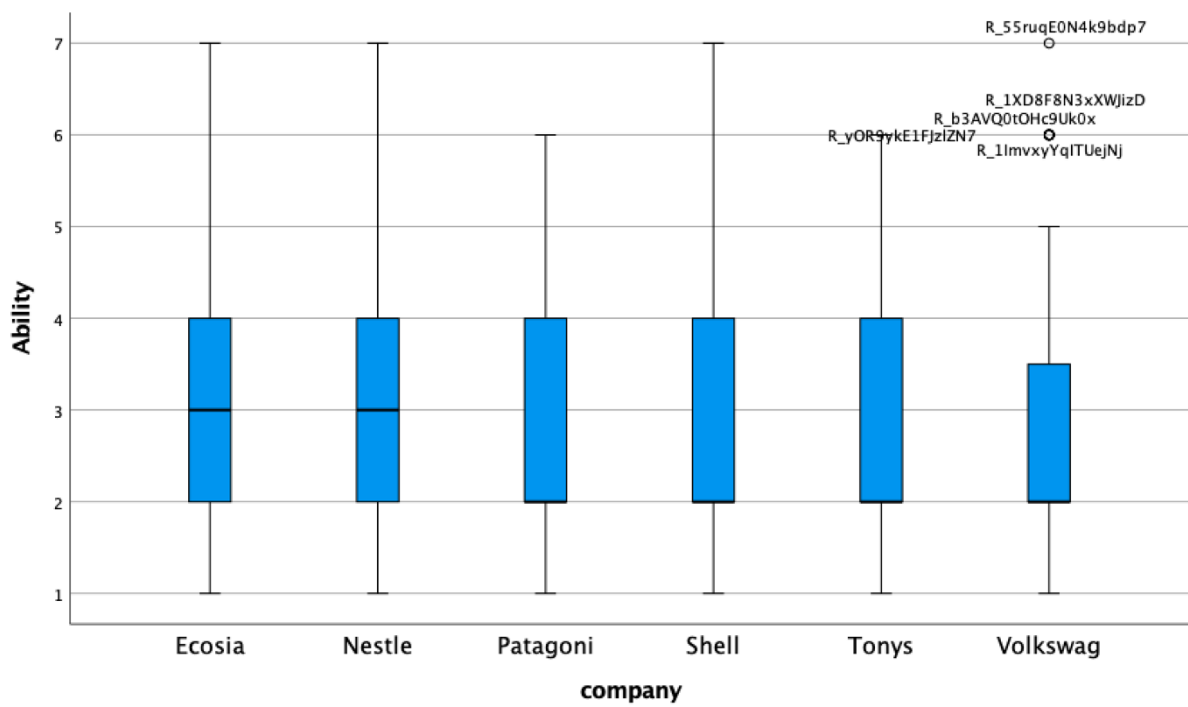
Graph 5B. Box and whisker plot Benevolence



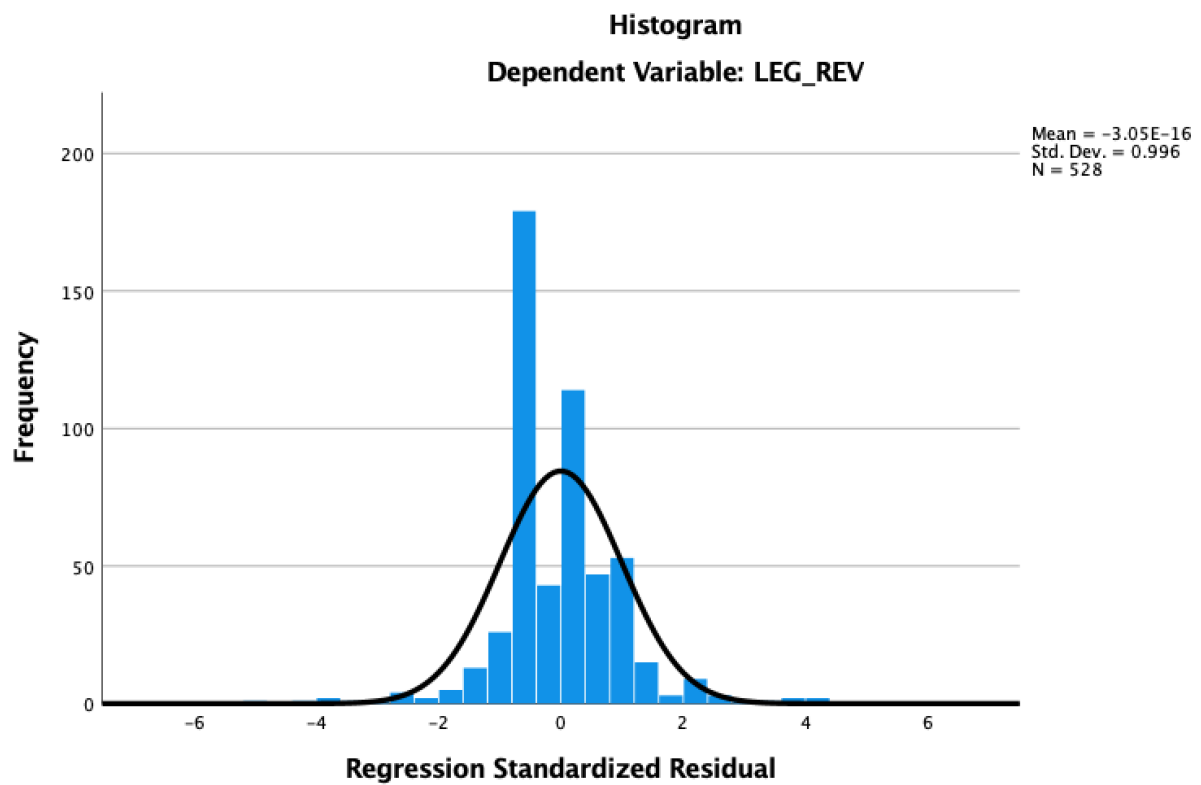
Graph 6B. Box and whisker plot Integrity



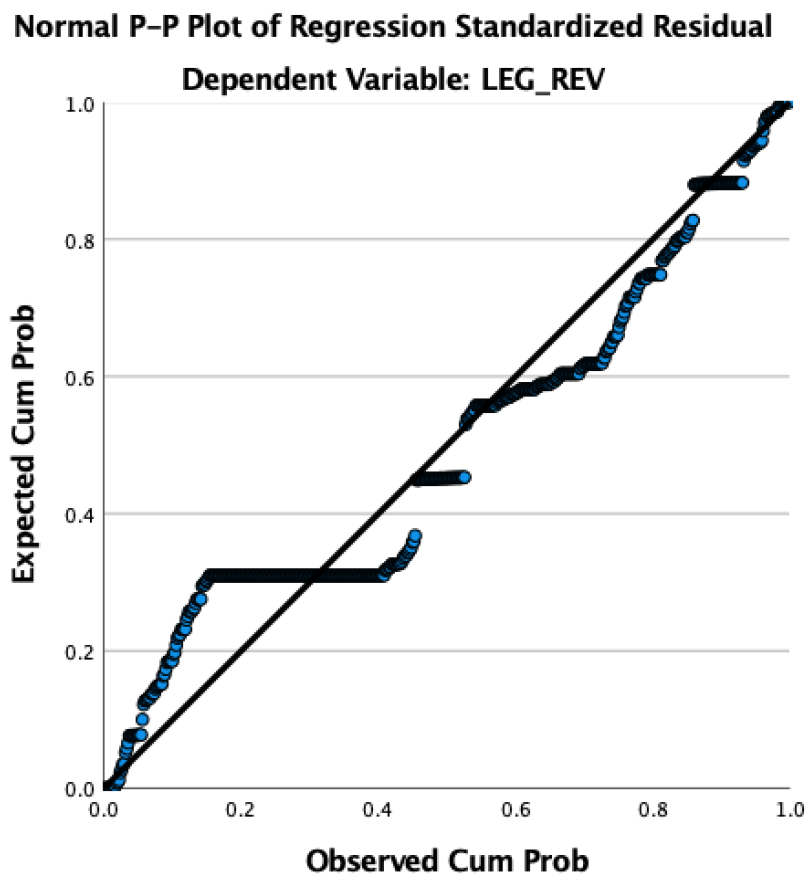
Graph 7B. Box and whisker plot Ability



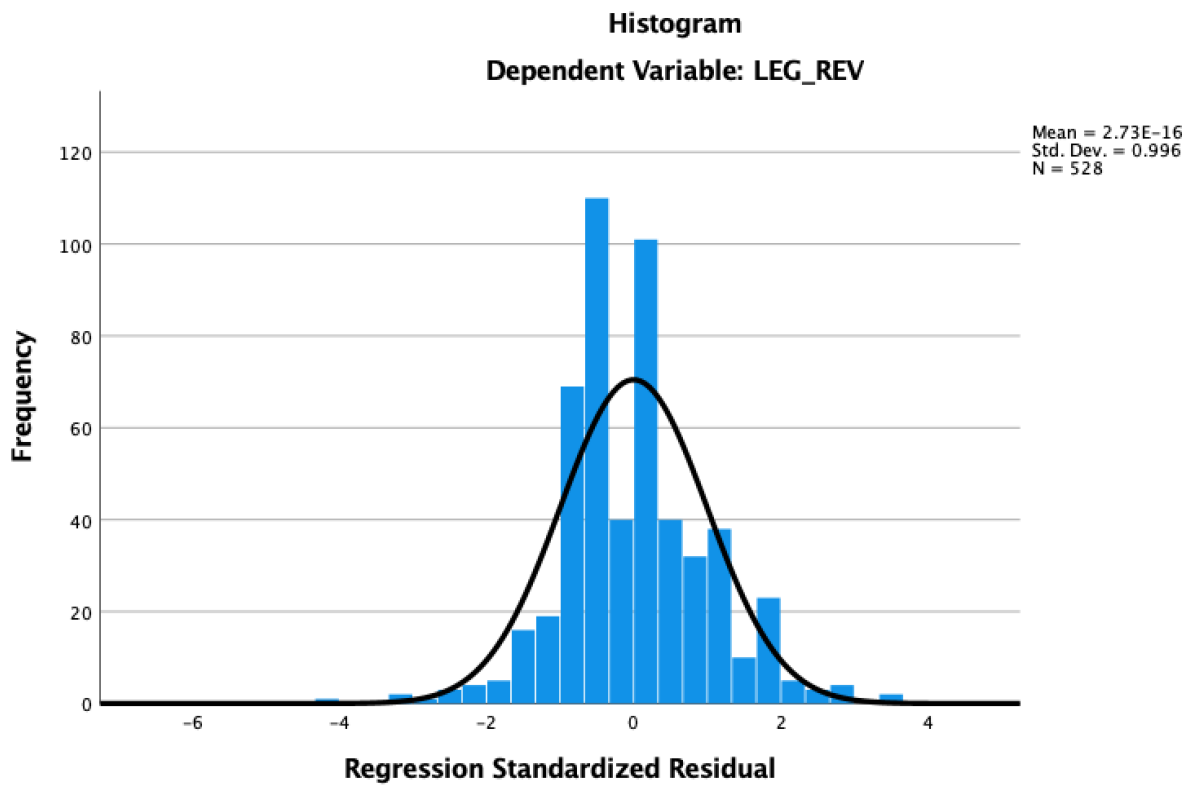
Graph 8B. Histogram Main Model Transparent



Graph 9B. Normal Q-Q Plot Main Model Transparent



Graph 10B. Histogram Main Model Non-Transparent



Graph 11B. Normal Q-Q Plot Main Model Non-Transparent

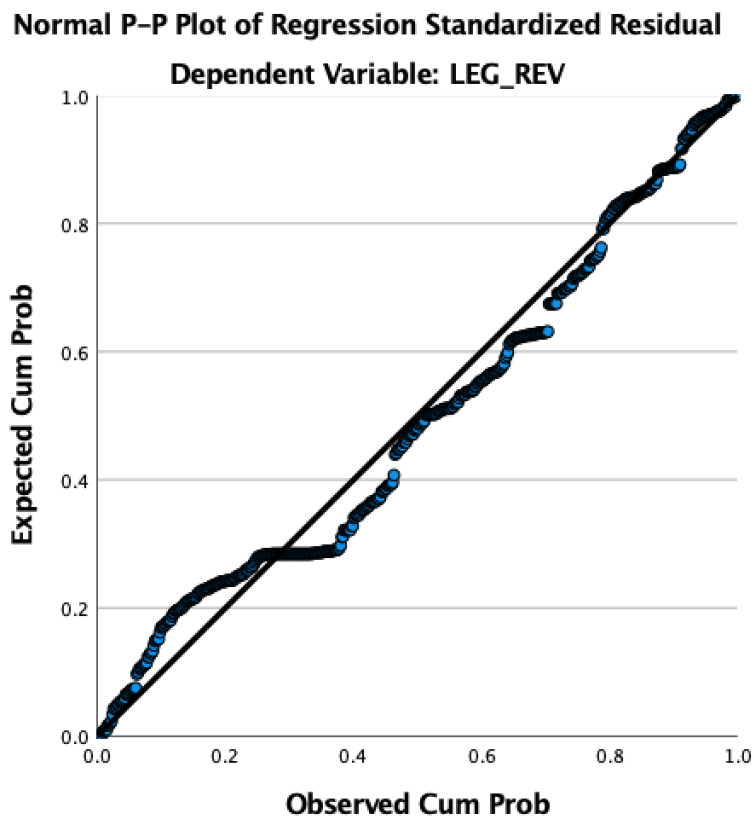


Table 3B. Regression results for Model 3 and 6

|                         | Model 3     | Model 6         |
|-------------------------|-------------|-----------------|
|                         | Transparent | Non-transparent |
| Constant                | 1.271***    | 1.241***        |
|                         | (0.187)     | (0.155)         |
| <hr/>                   |             |                 |
| Transparency            |             |                 |
| Legitimacy              | 0.745***    | 0.662***        |
|                         | (0.035)     | (0.033)         |
| R <sup>2</sup>          | 0.460       | 0.434           |
| Adjusted R <sup>2</sup> | 0.459       | 0.433           |
| F                       | 448.187     | 402.635         |
| Observations            | 528         | 528             |

Standard errors are reported in parenthesis. Unstandardized coefficients are reported.

\*,\*\*,\*\*\* indicate significance at the 90%, 95% and 99% respectively.

Although it is not part of the research framework, the relationship between legitimacy and engagement was explored. Model 3 was statistically significant ( $R^2=0.460$ ,  $f(1, 526)=448.187$ ,  $t = 21.170$ ,  $p<0.001$ ). It was found that legitimacy in the transparent company group significantly impacted engagement ( $\beta=0.745$ ,  $p<0.001$ ). Alongside this, Model 6 was statistically significant as well ( $R^2=0.434$ ,  $f(1, 526)=402.635$ ,  $p<0.001$ ). In this case legitimacy in the non-transparent company group also significantly impacted engagement ( $\beta=0.662$ ,  $t = 20.066$ ,  $p<0.001$ ). This shows that generally, the higher the legitimacy, the more the engagement is prone to grow within a firm.



## APPENDIX C: Qualitative analysis and results

Figure 5C. Qualitative summary of codes

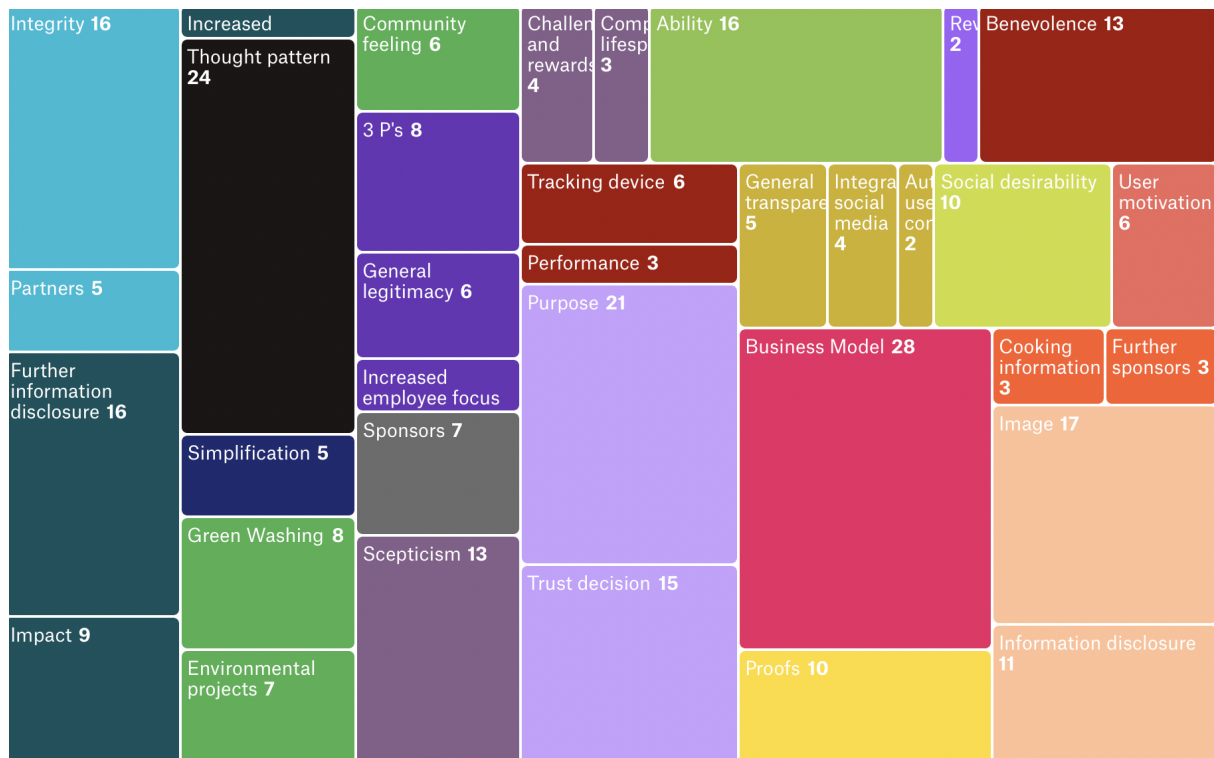


Table 4C. Findings for the code group Transparency

| Code group   | Relevant sub-codes                | Key findings (quotation number)  |
|--------------|-----------------------------------|--|
| Transparency | Triple bottom line (8 quotes)     | No social impact (TR21)  |
|              |                                   | Need P from Profit (TR49)  |
|              |                                   | If sponsors address 3P's, it becomes legitimate (TR55)   |
|              |                                   | The closer the 3 P's are to the value proposition, the more legitimate and transparent the company is (TR43) |
|              | Business model (28 quotes)        | No interest in how they make profit, just that they are consequent (TR2)                                     |
|              |                                   | Information disclosure important in this type of business model and industry (TR17)                          |
|              |                                   | Holistic business model needed (TR35)  |
|              |                                   | Business model not clear (TR22, TR4, TR6)  |
|              |                                   | Honesty about how they make profit needed (TR29, TR53)   |
|              | Environmental projects (7 quotes) | Transparency and openness about who they donate to (TR11, TR14, TR28, TR41)                                  |

|                                 |                                    |  |
|---------------------------------|------------------------------------|--|
|                                 | Impact (9 quotes)                  | Cautious to talk about impacts, majorly talk about outputs and outcomes, and show limitations (TR63, TR27) |
|                                 |                                    | Need for a long term impact that finds solutions without creating additional problems (TR70)               |
|                                 | Information disclosure (11 quotes) | The more information, the more trustworthy you seem as a company (TR8)                                     |
|                                 |                                    | High information disclosure in the website increases honesty perception (TR41)                             |
|                                 |                                    | Seeing numbers and a brief description in the website increases trustworthiness (TR58, TR60)               |
|                                 | Sponsors (7 quotes)                | Not great idea because money is received through sponsors and not directly through activity (TR45)         |
|                                 | Partners (5 quotes)                | Very apparent in the website and helpful (TR41, TR57, TR9, TR16)   |
| General transparency (5 quotes) | Honest (TR40, TR1)                 |  |

Table 5C. Findings for the code group Legitimacy

| Code group  | Relevant sub-codes              | Key findings (quotation number)  |
|---|---------------------------------|--|
| Legitimacy  | Company lifespan (3 quotes)     | Early on stage, seems relatively new (LE7, LE8, LE19)                  |
|   | Image (17 quotes)               | Professional and user-friendly (LE21, L236)                            |
|   |                                 | Attractive, appealing, modern (LE18, LE14)                             |
|   |                                 | Image not important as long as they stay truthful to their claim (LE9) |
|   |                                 | Basic but good image (LE1)   |
|   | Social desirability (10 quotes) | Social component, to share and exchange (LE28, LE32, LE35)             |
|   |                                 | Motivates people (LE13), possibly extrinsic motivation (LE20,          |
|   | General legitimacy (6 quotes)   | Seems legitimate (LE22, LE31, LE24)                                    |
| Real legitimacy comes from using a triple bottom line approach (LE15) |                                 |  |

Table 6C. Findings for the code group Trust mechanisms

| Code group       | Relevant sub-codes                                   | Key findings (quotation number)  |
|------------------|--|--|
| Trust mechanisms | Benevolence (13 quotes)                              | Caring about the environment, social in terms of motivating people to do sports (TM41, TM25)                 |
|                  | Integrity (16 quotes)                                | The more reliable and the more information at hand, the higher the trust (TM6)                               |
|                  |  | App use depends on whether A.G. shows evidence that they are holding up what they are promising (TM33, TM34) |
|                  | Difficulty in assessing integrity (TM10, TM31, TM32) |  |

|  |                     |  |
|--|---------------------|--|
|  | Ability (16 quotes) | Cradle to cradle founders and difference between effectiveness and efficiency (TM7)    |
|  |                     | Not important as long as it tracks running (TM19, TM24)                                |
|  |                     | Most important one because it shows they are doing what they say they are doing (TM36) |

Table 7C. Findings for the code group Trust process

| Code group   | Relevant sub-codes          | Key findings (quotation number)   |
|--|-----------------------------|---|
| Trust process  | Greenwashing (8 quotes)     | Companies surrounding the company that are only sponsors are seen as doing greenwashing (TP32, TP33, TP59)  |
|  | Proofs (10 quotes)          | Proofs showing impact they claim to have needed, as well as proofs that their projects are working (TP1, TP31)  |
|  |                             | Proofs of trees being planted and of operative years of sponsors (TP13)   |
|  | Scepticism (13 quotes)      | Missing proofs lead to scepticism (TP16)  |
|  |                             | “Too good to be true” feeling amongst one interviewee (TP2, TP62)   |
|  |                             | Scepticism revolving around tree monitoring and tree planting effectiveness (TP15, TP57)  |
|  | Simplification (5 quotes)   | Simplifying the problem creates more sceptical people (TP12)  |
|  |                             | Simplicity “without too much fireworks” helps one interviewee find it more real and trustworthy (TP63)  |
|  | Thought pattern (24 quotes) | Reliability you gain with time, but you don’t with trust (TP40, TP45)   |
|  |                             | Sustainability focus makes you on one hand more critical because you want the startup to be accountable but also you are more optimistic for them (TP3, TP58) |
|  |                             | Low commitment to brands makes credibility less of a concern (TP24)   |
|  |                             | Articles and trustworthy third parties needed to verify effectiveness of tree planting versus other carbon capturing technologies (TP52)                      |
|  |                             | Trust is necessary because one can’t prove everything (TP22)  |
|  | User motivation (6 quotes)  | Good content and services are big motivations (TP70)  |
|  |                             | To increase use if no more information is disclosed, further motivations should be created (TP4)  |
|  |                             | Intrinsic motivations are best but extrinsic motivations like social desirability can also increase use of app (TP5, TP36)                                    |
|  | Trust decision (15 quotes)  | Trust is a psycholological state where you “walk the talk” (TP51)   |
| If you don’t understand something, it’s difficult to trust it fully (TP48) |                             |   |

|  |  |   |
|--|--|---|
|  |  | If there is the feeling where time or money have been put into the app, the feeling of trustworthiness increases (TP34) |
|--|--|---|

Table 8C. Findings for the code group Positive ideas *Active Giving*

| Code group                             | Relevant sub-codes             | Key findings (quotation number)   |
|--|--------------------------------|---|
| Positive ideas<br><i>Active Giving</i> | Community feeling (6 quotes)   | Keeps people connected through motivation and workouts (PIAG3)  |
|  | Increased awareness (2 quotes) | Platform that increases awareness by being able to personally contribute to the projects (PIAG8)  |
|  | Value proposition (21 quotes)  | Idea in itself is the most interesting thing (PIAG11, PIAG23, PIAG24)<br>Center of company should be the value proposition, other things are peripheral (PIAG5) |

Table 9C. Findings for the code group Possible implementations

| Code group                          | Relevant sub-codes   | Key findings (quotation number)  |
|-------------------------------------|--|--|
| Possible implementations            | Authentic user content (2 quotes)  | Photos of some users or posts on website (PI30, PI36)  |
|                                     | Challenges and rewards (4 quotes)  | Running challenges to increase bounding to the company (PI21) and a better rewarding system (PI14, PI33)               |
|                                     | Cooking and health information (3 quotes)  | Show impact of cooking (PI1) and seasonal products as well as their footprint to contribute to a holistic model (PI37) |
|                                     | Tracking device (6 quotes)   | Improve traceability (PI13, PI16), follow along projects (PI22) and phone tracking device (PI38)                       |
|                                     | Further information disclosure (16 quotes)   | Where trees are planted (PI32, PI34)   |
|                                     |  | People, wages, and impact of those planting the trees (PI28)   |
|                                     |  | Benefits for ecosystems and environment (PI17)   |
|                                     | Integration social media (4 quotes)  | Co-branded actions and increase diffusion on the channels (PI23, PI10) and accompanying communicative actions (PI9)    |
| Reviews (2 quotes)                  | Testimonies would be helpful for one interviewee (PI20) but for another it wouldn't as this information should come from within the company and not the users (PI31) |  |
| Increased employee focus (3 quotes) | Use program for companies to motivate own employees to be active (PI12, PI25, PI29)  |  |