HOW DO FIRMS’ ACTIONS IMPACT GREEN SCEPTICISM? THE EFFECTS OF GREEN BRAND ASSOCIATIONS, GREEN BRAND EQUITY AND GREENWASHING

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ABSTRACT
Purpose- This study aims to explore how greenwashing, green brand equity and green brand associations affect green skepticism.
Methodology- In the study, survey method was used to collect the data. After eliminating unreliable questionnaires, final sample size consists of 400 respondents. To check the reliability and the construct validity of the scales, Cronbach’s Alpha coefficient and Exploratory Factor Analysis (EFA) was run, and to affirm the convergent and discriminant validity, Confirmatory Factor Analysis (CFA) was used. In order to test the research hypothesis, Structural Equation Modeling (SEM) was conducted.
Findings- According to the results, it was found that green skepticism is positively affected by greenwashing, while negatively affected by green brand associations and green brand equity.
Conclusion- Greenwashing positively affects green skepticism, while there is a positive relationship between green brand associations, green brand equity and green skepticism.
Keywords: Green scepticism, greenwashing, green brand equity, green brand associations, structural equation modelling.
JEL Codes: M31, C83, L21

1. INTRODUCTION
During the past few decades, increases in environmental concern enforced companies to develop green strategies almost in every business functions such as marketing, production, supply chain management etc. Today, there is a huge amount of green products offered in the markets (Leonidou and Skarmeas, 2017). By that means, there is also increasing consumer awareness in relation with the firms’ environmental actions (Wei et al., 2017). On the other hand, there is also a growing concern about the green misleading communication done by companies to increase their green perception (Parguel et al. 2011). Corporates’ malfeasances and irresponsible environmental behaviors are hold responsible for the increases in scepticism towards green actions (Mohr et al.1998; Obermiller et al. 2005).

Green skepticism is an important issue not only for consumers, but also for companies, investors, governments, and society in general (Leonidou and Skarmeas, 2017). Because as scepticism increases, consumers’ intentions to buy green products decreases (Albayrak et al. 2011). In addition to that, skepticism also causes diminishes on the positive impact of green communication (do Paco and Reis, 2012). In the long turn, those may cause erosions in the markets in which companies invest on eco-friendly products (Leonidou and Skarmeas, 2017). Furthermore, green skepticism drives consumers to seek more information and fosters negative word of mouth (Leonidou and Skarmeas, 2017). More importantly, green skepticism lowers customers’ environmental knowledge and environmental concern (Goh and Balaji, 2016), and therefore may drive erosions in the society regarding sustainability.
There is an extant literature on green marketing however green scepticism is an understudied concept (Leonidou and Skarmeas, 2017; Goh and Balaji, 2016). The literature generally focuses upon green ad scepticism (Shrum et al., 1995; Matthes and Wonneberger, 2014; Wei et al., 2017) and how marketing communication is related with scepticism (Raska and Shaw, 2012); skepticism towards environmental issues such as climate change (Pelham, 2018), and the relationship between consumers’ environment related attitudes and scepticism (Goh and Balaji, 2006; Rahman et al., 2015). Yet, how firms’ branding-related actions impact green scepticism has escaped adequate research attention. On that ground, this study aims to fulfill that gap by exploring how greenwashing, green brand equity and green brand associations affect green scepticism.

2. LITERATURE REVIEW

2.1. Green Scepticism and Greenwashing

Scepticism is defined as “a person’s tendency to distrust or disbelieve” (Romani et al., 2016 p.255). It may either be considered as enduring, and therefore as a personality trait (Obermiller and Spangenberg 1998) or as situational, and therefore context-dependent (Singh et al. 2009; Pirsch et al. 2007). Situational scepticism is independent from one’s trait but depends on the context (Rahmani et al., 2016). Scepticism is studied across different disciplines such as psychology, sociology, politics and philosophy (Skarmeas and Leonidou, 2013). In the business context, consumers’ scepticism in relation with advertising, promotion, public relations, and consumer social responsibility (CSR) and green marketing were studied.

Consumers evaluate the messages and actions of the firms and in some point they may develop scepticism as a result of their evaluations (Friestad and Wright 1994). Green scepticism is a situational scepticism and refers to doubting or disbelieving environmental claims made by the firms (Goh and Balaji, 2016). On that basis, it is affected by firms’ communications and actions. Prior research stated that there are several drivers causing green scepticism. Leonidou and Skarmeas (2017) indicate that consumers classify firms’ actions either as intrinsic (such as value-driven motives) or extrinsic motives (such as stakeholder-driven motives). Intrinsic motives are selfless actions to do good while extrinsic motives are related with increasing one’s own welfare (Parguel et al., 2011). In their study, Leonidou and Skarmeas (2017) verified that when consumers perceive that the green talk and green walk achieved by the firm is a selfless action, then their scepticism decreases. Green scepticism negatively affects credibility of the green ad. Consumers, who are highly sceptical, are biased towards information claims and therefore they do not trust the arguments in the ads. On that ground, they develop a negative attitude towards green products, which affects green purchase intention and behavior negatively (Wei et al., 2017; Ulusoy and Barretta, 2016). Therefore it was hypothesized that;

H1: Greenwashing positively affects green scepticism.

4.2. The Green Brand Equity

All of the marketing activities, either done successfully or unsuccessfully, add a value to the brand and as a result generate a consumer response, which is conceptualized as brand equity (Aaker, 1991; Keller, 1993). Brand equity is defined as “consumers’ different response between a focal brand and an unbranded product when both have the same level of marketing stimuli and product attributes” (Yoo and Donthu, 2001 p. 1). The difference in consumer response is derived from the marketing activities. In relation with that conceptualization of brand equity, Chen (2010, p. 310) defined green brand equity as “a set of brand assets and liabilities about green commitments and environmental concerns linked to a brand, its name and symbol that add to or subtract from the value provided by a product or service”. Today, green brand equity is an important tool to achieve competitive advantage since it enables companies to strongly position their products in green markets (Butt et al., 2017).

The main focus in the green marketing literature was to determine the antecedents of green brand equity (Kang and Hur, 2012; Chang and Chen, 2014; Ng et al, 2014). The outcomes of green brand equity are understudied. However, previous literature for conventional marketing confirms that brand equity positively affects marketing success (Ambler, 1997; Simon and Sullivan, 1993; Lane and Jacobson, 1995), future profits and long-term cash flow (Srivastava and Shock, 1991), and consumers’ willingness to pay more (Keller, 1993).

Green brand equity derives from the green marketing activities and generates a positive response in the market. Almost each marketing activity affects brand equity, but especially activities that lead to perceived quality, positive brand image, brand loyalty, positive associations are crucial, since those are defined as the main dimensions of brand equity, along with the tangible assets of the brand (Aaker, 1997). On that ground, strong green brand equity is a sum of the positive perceptions of quality, image, and associations. Therefore, it was hypothesized that;

H2: Green brand equity negatively affects green scepticism.
2.3. The Green Brand Associations

Brand associations are “the informational nodes linked to the brand node in memory and contain the meaning of the brand for consumers” (Belen del Rio et al., 2001). The brand attributes, benefits and attitudes are stored in the consumers’ minds and generate an information source (Keller, 1998). Brand associations can be anything recorded into the category of “brand’s assets and liabilities” in the memory (Aaker, 1991). Brand associations are not only used by consumers to organize and retrieve information about the brands but also used by the marketers to differentiate and extend brand, to create positive attitudes and feelings toward brands (Low and Lamb, 2000). Strong, positive, and unique associations fortify a brand and increase brand equity (Keller, 2001). Moreover, when consumers hold strong and positive associations in their mind their perceptions about the disbelief of the firms’ green actions diminishes. Therefore it was hypothesized that;

H3: Green brand associations negatively affect green scepticism.

3. DATA AND METHODOLOGY

Data was collected by using survey method, and 400 consumers were interviewed face-to-face by the interviewers. The socio-demographics of the sample is as follows: Gender (52% female, 48% male), age group: 18-25 (26%); 26-35 (40%); 36-45 (17%), income level: 400-1350 USD (62%). As a subject to study, well-known refrigerator brand, which positions itself as green, was used. Green scepticism was adopted from Goh and Balaji (2016) and measured by four items, green brand equity was adopted from Chen and Chang (2012) and measured by four items, greenwashing was adopted from Chen and Chang (2013) and measured by five items, and green brand associations was adopted from Chang and Chen (2014) and measured by four items. Five-point Likert scale rating from strongly agreement to strongly disagreement was used in scaling. The research model used in the study is shown in Figure 1.

4. FINDINGS AND DISCUSSIONS

4.1. Reliability and Validity Check

The reliability and the validity of the scales were checked by running Cronbach’s Alpha coefficient and Exploratory Factor Analysis (EFA). Table 1 displays Cronbach’s Alpha values and explained variance by each variable.
As it is seen in Table 1, Cronbach’s Alpha values are high above the minimum required level of .70 after deleting one item from green associations scale and green skepticism scale. In order to test the validity of the scales, EFA with principal component method was run. First, Keiser-Meyer-Olkin of sampling adequacy (KMO) and Bartlett test of sphericity for each construct were checked to assure the appropriateness of EFA. KMO values are high above the minimum required level .50 and the Bartlett test of sphericity for each construct is significant. As a result of EFA, it was found that all the constructs explains at least 66 per cent variance.

Moreover, Confirmatory Factor Analysis (CFA) was conducted to affirm the convergent and discriminant validity. At first, the goodness-of-fit between the data and the model was tested. The fitness measures provide the required levels (CMIN/df= 2.280, GFI=.953, IIF=.966, TLI=.954, CFI=.966, and RMSEA=.051). In order to assess convergent validity, factor loadings, composite reliability (CR) and average variance extracted (AVE) were examined. The literature suggest that factor loadings should be between .6 and .95, the CR should be higher than .6, and AVE values should be over .5 (Lin and Niu, 2018). The results of convergent validity test were presented in Appendix 1.

For discriminant validity, the methodology stated by Fornell and Larcker (1981) was employed. Accordingly, the AVE values and the correlations between each construct were compared. The square root of the AVE should be higher than the correlations between the variables (Butt et al., 2017). The results of discriminant validity test were given in Table 3.

### Table 3: The Results of Discriminant Validity Analysis

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Green Scepticism</th>
<th>Green Brand Equity</th>
<th>Green Brand Assoc.</th>
<th>Greenwashing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green Scepticism</td>
<td>(.588)*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Green Brand Equity</td>
<td>-.064**</td>
<td>.547</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Green Brand Associations</td>
<td>-.145</td>
<td>.356</td>
<td>.591</td>
<td>-.267 (.504)</td>
</tr>
<tr>
<td>Greenwashing</td>
<td>.285</td>
<td>-.284</td>
<td>-.267</td>
<td></td>
</tr>
</tbody>
</table>

* The values in the parenthesis are square root AVEs.
** Correlation values between constructs.

Note I: For every latent variable, its square root AVE value is greater than its correlation coefficient values with other variables, thus verifying discriminant validity.

### 4.2. Test of Structural Relationships

Structural Equation Modeling (SEM) with maximum likelihood estimation (MLE) was run to test the relationships among constructs. Figure 2 displays structural model of relationships.

![Figure 2: Structural Model of Relationships](image-url)
Figure 2 displays the structural paths of the research model. As it is seen in Figure 2, there are four latent variables: brand associations (asso), green brand equity (gb_eq), green washing (gw), and green scepticism (g_scep). There are also 16 error terms related with the variables.

The goodness-of-fit between the data and the model was checked via various indicators. All the indicators verified good fitness between the data and the model (CMIN/df= 2.468, GFI= .950, IFI= .963, TLI=.952, CFI=.963, and RMSEA=.054). Furthermore, Hoelter’s N0.05 = 264>200 and Hoelter’s N0.01 = 290 >200 indicate the adequacy of sampling size (Schreiber et al., 2006). The results of the path analysis were presented in Table 4. Accordingly, all of the hypotheses in the research model were supported. R² value for the model was found as .584. In other words, the model explains approximately 60 per cent of green scepticism. Consequently, the theoretical and managerial implications of the study are discussed below.

Table 4: Hypotheses Testing of the Structural Model

<table>
<thead>
<tr>
<th></th>
<th>Estimate</th>
<th>Std. error</th>
<th>t-value</th>
<th>sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greenwashing →</td>
<td>.371</td>
<td>.065</td>
<td>5.667</td>
<td>.000</td>
</tr>
<tr>
<td>Green Scepticism</td>
<td>H1 Supported</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Green Brand Equity →</td>
<td>-.258</td>
<td>.077</td>
<td>-3.351</td>
<td>.000</td>
</tr>
<tr>
<td>Green Scepticism</td>
<td>H2 Supported</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Green Brand Assoc. →</td>
<td>-.147</td>
<td>.072</td>
<td>-2.029</td>
<td>.043</td>
</tr>
<tr>
<td>Green Scepticism</td>
<td>H3 Supported</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5. CONCLUSION

For companies it is important to understand the green consumption behavior since there are controversial finding in the literature. The overall purpose of this study is to explore the green brand-related factors on green scepticism. More specifically, this research aims to analyze how greenwashing, green brand equity and green brand associations affect green scepticism. The data was collected from 400 consumers in Istanbul, Turkey, in which a rapidly growing environmentally sensitive market segment exist (Albayrak et al., 2013). The research hypotheses were tested by SEM. As a result it was found that greenwashing positively affects green scepticism whereas green brand associations and green brand equity have negative effects.

Skeptical consumers are vulnerable to negative information (Skarmas and Leonidou, 2013), and therefore as misleading information increases so does the green scepticism. The greenwashing does not only affect the company, which claimed by doing greenwashing but it affects the whole green marketing industry. In fact, for the sceptical consumers, interpersonal communication is viewed as more credible than the organizational communication (Grewal, Cline, & Davies, 2003). The companies should be aware of the greenwashing activities and take necessary action to assure that misleading actions does not add to scepticism.

In addition to greenwashing, green brand associations and green brand equity negatively affect green scepticism. On that ground companies should rely upon creating positive associations in consumers’ minds and invest upon increasing the equity of their brands.

This study has some limitations that would generate further research opportunities. First, this study is executed in one emerging country hence the results should not be generalized for all the emerging countries. Besides that, one product category and one brand were used as subject to study. Therefore the results also cannot be generalized for all of the product categories and brands. Other emerging countries and other product categories should be analyzed as further research.

REFERENCES


### Appendix 1: The Results of Convergent Validity analysis

<table>
<thead>
<tr>
<th>Construct</th>
<th>Items</th>
<th>λ</th>
<th>C.R.</th>
<th>AVE</th>
<th>Square Root of AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Green Scepticism</strong></td>
<td>Because environmental claims are exaggerated, consumers would be better off if such claims on package labels of in advertising were eliminated. Most environmental claims on package labels or in advertising are intended to mislead rather than to inform consumers. I do not believe in most of the environmental claims made on the package labels or in advertising.</td>
<td>.600*</td>
<td>.806</td>
<td>.588</td>
<td>.767</td>
</tr>
<tr>
<td><strong>Green Brand Equity</strong></td>
<td>It makes sense to buy this brand instead of other brands because of its environmental commitments even if they are the same. Even if another brand has the same environmental features as this brand I would prefer to buy this brand. If there is another brand’s environmental performances as good as this brand’s, I would prefer to buy this brand. If the environmental concern of another brand is not different from that of this brand in any way, it seems smarter to purchase this brand.</td>
<td>.602</td>
<td>.902</td>
<td>.547</td>
<td>.739</td>
</tr>
<tr>
<td><strong>Green Brand Associations</strong></td>
<td>You can recognize this brand among other competing brands because of its environmental commitments. You are aware of this brand because of its environmental reputation. Some environmental characteristics of this brand come to the top-of-mind in your consideration set quickly. You can quickly recall the green image of this brand.</td>
<td>.501*</td>
<td>.812</td>
<td>.591</td>
<td>.769</td>
</tr>
<tr>
<td><strong>Greenwashing</strong></td>
<td>This product misleads with words in its environmental features. This product misleads with visuals or graphics in its environmental features. This product possesses a green claim that is vague or seemingly un-provable. This product overstates or exaggerates how its green functionality actually is. This product leaves out or masks important information, making the green claim sound better than it is.</td>
<td>.825</td>
<td>.964</td>
<td>.504</td>
<td>.710</td>
</tr>
</tbody>
</table>

*All values are significant at p<0.01. ** The item is omitted while calculating CR and AVE, because it is lower than .60.