JATSS, 2021; 3(4), 306-329.

First Submission: 01.11.2021

Revised Submission After Review: 03.12.2021

Accepted For Publication: 07.12.2021 Available Online Since: 31.12.2021

Research Article

The Interaction Between Brand Image, Brand Attachment and Brand Loyalty in Green Branding Context: The Mediating Role of Customer Engagement

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**Abstract** 

As environmental problems are dramatically alarming the world, environmental issues have become the primary concerns of both consumers and companies. To please the environmental wants of consumers, many companies have to adopt green solutions today. Green brands are one of these solutions. Nevertheless, little has been known about the green brands. In this sense, this study attempts to explore the interaction between brand image (BIm), brand attachment (BAtt), customer engagement (CEn) and brand loyalty (BLo) within the scope of green brands as previously untapped context. In this study while brand image is determined as independent variable; customer engagement is specified as the mediator variable which mediates the link between brand image and brand attachment. Data were gathered from 428 participants through convenience sampling method. To examine the links between the variables in the suggested model, structural equation modelling was utilized. The results regarding the study bring out that brand image for green brands significantly influences customer engagement and brand attachment in a positive way; customer engagement has also a significant positive influence on brand attachment for green brands; and brand attachment for green brands significantly affects brand loyalty toward these brands in a positive way. In addition, partial mediating influence of customer engagement on the link between brand image for green brands and brand attachment was found significant. These findings also ensure applicable insights to practitioners, who are responsible for promotion of green brands, by emphasizing the importance of increasing brand image, customer engagement and customer attachment to generate loyal green customers.

**Keywords:** Brand Image, Brand Attachment, Brand Loyalty, Customer Engagement, Green Brands

**JEL Codes:** M19, M30, M31

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<sup>\* &</sup>quot;The permission has been obtained from the Ethics Committee of the University of Afyon Kocatepe with a decision on the date of 17.12.2021."

JATSS, 2021; 3(4), 306-329

İlk Başvuru: 01.11.2021

Düzeltilmiş Makalenin Alınışı: 03.12.2021 Yayın İçin Kabul Tarihi: 07.12.2021 Online Yayın Tarihi: 31.12.201

## <u>Araştırma Makalesi</u>

Yeşil Markalaşma Bağlamında Marka İmajı, Marka Bağlılığı ve Marka Sadakati Arasındaki İliski: Müsteri Katılımının Aracılık Rolü

İlkin Yaran Ögel<sup>1</sup>

Öz

Cevresel sorunlar dünyayı daha fazla harekete geçirdikçe, çevresel meseleler hem tüketicilerin hem de isletmelerin temel endişelerinden biri haline gelmektedir. Müşterilerin çevresel istek ve ihtiyaçlarını tatmin etmek için birçok işletme günümüzde yeşil çözüm önerileri geliştirmek zorunda kalmıştır. Yeşil markalar da bu çözüm önerilerinden biridir. Ne var ki yeşil markalar ile ilgili cok az sey bilinmektedir. Bu bağlamda bu çalısma, yesil markalar bağlamında marka imajı, marka bağlılığı, müşteri katılımı ve marka sadakati arasındaki ilişkiyi incelemeyi amaçlamaktadır. Bu çalışmada, marka imajı bağımsız değişken olarak belirlenirken, müşteri katılımı, marka imajı ve marka bağlılığı ilişkisine aracılık eden aracı değişken olarak belirlenmiştir. Çalışmanın verileri 428 katılımcıdan kolayda örnekleme yoluyla toplanmıştır. Önerilen modelde bulunan değişkenlerin arasındaki ilişkileri incelemek için yapısal eşitlik modeli kullanılmıştır. Çalışmanın bulguları, yeşil markalar için marka imajının müşteri katılımı ve marka bağlılığını anlamlı bir şekilde ve olumlu yönde etkilediğini; müşteri katılımının yeşil markalar için marka bağlılığını anlamlı ve olumlu yönde etkilediğini ve marka bağlılığının da marka sadakatini anlamlı ve olumlu bir şekilde etkilediğini göstermiştir. Ayrıca, marka imajı ve marka bağlılığı arasındaki ilişki üzerinde müşteri katılımının anlamlı bir şekilde kısmı aracılık etkisi olduğu bulunmuştur. Bu bulgular, yeşil sadık müşteriler yaratılmasında marka imajının, marka bağlılığının ve müsteri katılımının artırılmasının önemini vurgulayarak yesil markaların pazarlanmasından sorumlu olan yöneticilere önemli katkılar sağlamaktadır.

**Anahtar Kelimeler:** Marka İmajı, Marka Bağlılığı, Marka Sadakati, Müşteri Katılımı, Yeşil Markalar

JEL Kodlar: M19, M30, M31

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#### 1. Introduction

Environmental issues which lead to growing green consciousness for consumers due to major environmental problems has encouraged them to be more sensitive about what they consume. Besides, environmental problems threatening all over the world like global warming, climate crisis and pollution has made sustainability as one of the vital business goals for companies (Lubin and Esty, 2010). Thus, sustainability concern drives companies to take action toward adopting green innovation methods (Pfeffer, 2010). Today, growing number of companies are converting their business-related processes to be environmentally-friendly, and so this leads to a paradigm shift in business thinking toward ensuring well-being of society and environment in the long run (Ahmad and Thyagaraj, 2015). Accordingly, increase in concerns toward environment-related issues has motivated companies to offer green solutions to the consumers by employing green management approaches for a few decades (Berrone et al., 2017). Green marketing and green branding are one of the phenomena which is the part of these solutions as an outcome of efforts made for sustainability.

Today, the popularity of green products among consumers is increasing in the society (Raska and Shaw, 2012). Depending on its growing popularity, increasing number of consumers give preference to possess environmentally-friendly goods and services (Cronin et al., 2011). "Being green perspective" has been also increasingly adopted by contemporary companies as a recent approach because not only for increase in consumer preferences toward these brands but also to generate and maintain good relationship with the community and manage their costs effectively (Kassaye, 2001). Thus, today, companies are eagerly trying to do their best to create, maintain and deliver value to customers by satisfying their environmental needs or wants, as well. In this process, "being green" can also adopted by companies when they are designing their product, packaging, distribution channel and communication strategies which enable them to differentiate their products in the marketplaces.

In this context, as well as green marketing, green branding which focuses on establishing brands that environmental values constitute its essence has become important in terms consumers and companies (Insch, 2011). Particularly for consumers who have concerns about the protection of the environment, green brands seem more appealing to buy (Ahmad and Thyagaraj, 2015). In addition, as regard to companies, green brand may raise unique selling proposition for their products and services, contribute to their corporate image (Fraj-Andre's et al., 2008), and expand their competitive advantage (Chen et al., 2006).

Since it is regarded as a considerable academic research topic, green marketing has been examined and conceptualized thoroughly by several research for a few decades (e.g., Chamorro et al. 2009; Kilbourne 1998). Thus, many academic studies have made important contributions to relevant literature by discovering consumers' green attitudes and buying behavior; markets for green products; green market segmentation; green positioning and green marketing mix program (e.g., Akehust et al., 2012; Boztepe, 2012; Pickett-Baker and Ozaki, 2008). Drawing upon the persistent literature, it can be concluded that research on green marketing has been particularly concentrated on green consumer (e.g., Bohlen et al., 1993; Rowlands et al., 2003; Scherhorn, 1993; Shrum et al., 1995); recycling behaviors (e.g., Biswas et al., 2001; McCarty and Shrum, 1994); green communication (e.g., Mohr et al., 1998; Chan, 2000) and green marketing concepts and strategies (e.g., Crane, 2000; Pujari et al., 2003).

On the other hand, although there is a growing increase in demand of green brands, only a few number of studies has concentrated on green branding (Chen, 2010). Accordingly, despite its increasing importance in marketing literature, green branding has received less academic attention. In relevant literature, green branding has been examined with respect to green

purchase intention, green brand knowledge, attitude toward green brand and green brand positioning (e.g., Huang et al., 2014); green brand equity (e.g., Chen, 2010); green packaging (e.g., Chen et al., 2017); and negative aspects of green branding such as greenwashing (e.g., Akturan, 2018). Thus, by integrating green and brand from consumer perspectives, green branding has still provided a previously untapped context to examine the customer-brand interactions with respect to several brand-related constructs.

Building on the foregoing, this present study aims to research the interaction between brand image (BIm), brand attachment (BAtt), customer engagement (CEn) and brand loyalty (BLo) for green brands as a previously unused context. The findings of the study provide both managerial implications and contributions to the relevant literature in many aspects. First, the extant research on green branding is extended by affording an integrable conceptual framework that unites BIm, BAtt, BLo and CEn in green branding context simultaneously. Second, it is contributed to existing research by disclosing the mediating effect of CEn on the link between BIm and BAtt in terms of green brands. Third, it is suggested applicable implications to marketers and brand managers to generate loyal green consumers by emphasizing the importance of creating positive green BIm, CEn and BAtt through right communication and positioning strategies.

The remaining of the study is designed as follows. First, the relevant literature on green branding, BIm, BAtt, CEn, BLo and associations between them are investigated. Then, conceptual model of the study is suggested and hypotheses are established. Afterwards, methodology of the study is explained precisely. In the following part, the findings of the study are displayed and discussed elaborately. Finally, conclusions and both theoretical and managerial implications are presented and limitations of the study and recommendation for future studies are remarked.

### 2.Literature Review

### 2.1. Green Branding

Since the environmental problems like global warming and climate crisis arising due to increase in economic and industrial activities have dramatically influenced all over the world, sustainability has turned into one of the primary concerns of everybody. In this process, environmental concerns of the consumers have encouraged them to give more attention to purchase decisions, and so companies have required to take some measures to offer green products instead of traditional ones (Ahmad and Thyagaraj, 2015). Accordingly, the requirement for a change toward producing and consuming green goods and services has considerably increased in terms of companies and consumers, respectively. As a result, starting from the developed ones, most of the countries in the world have adopted ecological green marketing as an approach for a few decades (Sarkar, 2012).

From the marketing standpoint, green marketing consists of several activities from production process to packaging, advertising and even branding (Polonsky, 1994). Accordingly, initiated by the definition of marketing, green marketing is more likely to be stated as holistic management processes designed to create, maintain and deliver exchanges to please consumer needs and wants with a minimum harmful burden on environment, and in a sustainable and profitable manner (Peattie, 1995). Main motivation behind the green marketing is to decrease manufacture of goods which cause environmental pollution, and to enhance awareness for new ecological product groups (Sarkar, 2012). In this context, educating consumers and make them willing to buy green products are the primary purposes of green marketing (Grant, 2008).

As regard to companies, green marketing can be delineated as a process which consists of designing, pricing, distributing and promoting the products which will not damage the environment (Pride and Ferrel, 2004). Besides, as regard to consumer, green marketing can be identified as being a consumer who avoids to buy products that potentially pave the way for danger for the consumers' or others health; harm to the environment along their production or consumption; dispensable waste; and handling of materials stemmed from species in threat or doing cruelty to animals (Elkington, 1994). Today, many consumers think that green marketing is just about promotion of products that have terms like recyclable, renewable, ozone friendly and eco-friendly, indeed it is more than it (Polonsky, 1994). In general, as a novel and evolving concept, green marketing can be described as promotion of green and eco-friendly products that satisfy the well-defined eco-standard norms as regard to eco-labelling and eco-foot-printing (Sarkar, 2012). In this context, it is regarded as an approach which can be applied to services, as well as to both consumer and industrial goods (Roberts and Bacon, 1997).

Recent years, green marketing has increasingly employed as a strategic tool for improving brand image and managing sustainable development (Banytė & Gadeikienė, 2008). In addition, studies in pertinent literature also demonstrate that consumers are ready to give more money for eco-friendly goods (e.g., D'Souza et al., 2004; Laroche et al., 2001; Maxwell et al., 2000). In this sense, as well as green marketing, green branding has increasingly become one of the other approaches that the marketers and brand managers have adopted recent years. Initiated by the branding definition, green branding may also be delineated as a process for establishing a brand which can be easily identified and differentiated from the competitors' brands in marketplace (Danciu, 2015). Besides, the main emphasis behind the green branding is to establish a green brand which has environmental values (Insch, 2011).

Creating, facilitating and managing green brands are strategically important tasks for companies because green brands provide several advantages to both consumers and organizations in several aspects. First, together with green marketing, green branding enables companies to decrease their operating expenses (Yakhou and Dorweiler, 2004) and to use resources effectively (King and Lenox, 2001). Second, green branding allows companies to gain more competitive advantage (Valentine, 2010). Third, the more companies offer brands that satisfy environmental concerns of the customers, the more the customers will prefer these brands to buy (Kang and Hur, 2011). As a result, companies' profit will increase as well as the well-being of customers, society and environment increase.

In such context, the primary task for companies is to discover the opportunities to develop their products on the basis of environmental references to build up strong brand equity (Chen, 2010). Nevertheless, growing recognition of environmentally-friendly good has generated severe competition in the markets in which there is an increase in the number of companies either manufacturing eco-friendly goods and services or embarking upon green brands to draw the attention of environmentally consciousness customers (Kang and Hur, 2011). Accordingly, just concentrating on functional attributes of environmentally friendly products will not be enough for companies in this fierce competition to provide and maintain customer loyalty. Therefore, companies should focus on branding and strategic brand management processes to discriminate their eco-friendly products from the others in the marketplace.

To increase green brand equity, companies have to increase positive BIm and awareness for green brands (Chen, 2010). Besides, they should also focus on ensuring BAtt and CEn to create and maintain BLo. In the literature, there are several research testing the link between BIm and CEn (e.g., Islam and Rahman, 2016); BIm and BAtt (e.g., Chen et al., 2017); CEn and BAtt (e.g., Li et al., 2020); and finally, BAtt and BLo (e.g., Lee and Workman, 2015) in

different contexts. Therefore, since there is no research testing interaction between these constructs in green branding context before, green branding provides a sound ground to examine interaction between brand image, brand attachment, customer engagement and brand loyalty.

## 2.2. Brand Image, Brand Attachment, Customer Engagement and Brand Loyalty

Brand image (BIm) is one of the core concepts which has still taken more academic interest in extant marketing literature (Cho et al., 2015). It is often considered as an essential component of brands, and it enables brands to be differentiated from the competitors' brands (Aaker, 1996). BIm is regarded as one of main elements of customer-based brand equity as well as brand awareness, brand loyalty and perceived quality (Chen and Chang, 2012). In relevant literature, BIm can be delineated as a group of brand associations which take a place in memory of consumers regarding a brand in meaningful way (Aaker, 1991). In other words, it can be designated as the total perceptions of consumers toward particular brands as a reflection of associations held in memory of consumers (Dobni and Zinkhan, 1990; Leone et al., 2006). In this context, BIm reflects the brand, builds relationship with the customers, and makes them to effortlessly judge and feel the brand (Wood, 2004). Accordingly, many companies have tried to do their best to generate a positive brand image for their brands.

Brand attachment (BAtt) is one of the other sound and salient constructs in marketing literature. Based on attachment theory by John Bowlby, attachment can be portrayed as a reason that makes individual to cultivate a bond with an attachment figure (Japutra et al., 2014). In branding context, brand takes the place of attachment figure (Fournier, 1998). Accordingly, in relevant literature, BAtt can often be delineated as the extent of the cognitive and affective ties linking the brand with the consumer's self (Park et al., 2016). BAtt may also be regarded as a kind of self-extension (Kleine & Baker, 2004) because consumers extend their "self" to brands as their possessions (Belk, 1988). In this context, brand attachment demonstrates the extent of how consumers are related with brands (Schmitt, 2012), which potentially determines the extent of brand love, trust and loyalty of customers towards brands (Loureiro et al., 2012). Therefore, as well as brand image, generating BAtt is important for companies. Nevertheless, BAtt can develop over time on basis of interaction between brands and customers (Thomson et al., 2005). In this process, BAtt can be enhanced by letting consumers to go after their goals, by pleasing them through hedonic brand experiences, and by affording brand meanings which lead to symbolic self-expression for them (Park et al., 2008).

Customer engagement (CEn) is also one of the recent evolving constructs to explain customer-brand relationships in the marketing literature (Brodie et al., 2011). In relevant literature, numerous terms have been employed to state engagement such as "customer engagement" (e.g., Vivek et al., 2014); "consumer engagement" (e.g., Dessart et al., 2015); "customer brand engagement" (e.g., Hollebeek, 2011); "consumer brand engagement" (e.g., Hollebeek et al., 2014); and "brand engagement" (e.g., Keller, 2013; Sprott et al., 2009). This study particularly concentrates on CEn for green brands. In this context, CEn refers to the degree of cognitive, emotional and behavioral investment of consumers in particular brand interactions (Hollebeek, 2011). Alternatively, CEn can be also described as a psychological condition which appear by favor of co-advocative and interactive experiences of customer with a brand (Brodie et al., 2011). As well as BIm and BAtt, CEn has an influence on consumer behavior (Gambetti and Graffigna, 2020). Therefore, besides marketing scholars, CEn has gained attention from marketing practitioners, as well.

Finally, brand loyalty (BLo) refers to the attachment that customers have to specific brands (Aaker, 1991). BLo can also be defined as an intensely felt commitment to re-purchase

the favored product consistently over time (Oliver, 1999). In this sense, BLo can be readily associated with repetitive purchase intension and buying behavior of customers toward specific brands (Jagdish and Sheth, 1974). In recent times, keeping existing customers at hand is increasingly accepted as cost effective method compared to gaining new customers (Anderson and Mittal, 2000). In addition, having loyal customers ensures benefits to the companies in several aspects. First, loyal customers are the advocators of the brands and they defend the brands against any attacks (Shoemaker & Lewis, 1999). Second, they are more likely to recommend the brands to their acquaintances through positive word of mouth communication (Roy et al., 2016). Finally, customers have always re-purchase intentions toward the same brands (Ahmed, 2011). Therefore, companies are increasingly seeking the ways to retain customers at their hand by establishing loyalty toward their brands.

# 3. Conceptual Model and Hypotheses

## 3.1. The Link between Brand Image (BIm) and Customer Engagement (CEn)

Based on BIm definition, BIm for green brands can be defined as perceptions of consumers held in their memories regarding the green brands, which are related to environmental concerns and commitments (Chen, 2010). Since strong, favorable and unique brand image will lead to formation of better associations in consumers' mind (Keller, 2013), green BIm also enables consumers, whose priority is being green consumer, to be eagerly involved in and build strong relationship with the green brands. In this context, positive BIm of green brands may motivate environmentally consciousness consumers to more use these brands and recommend them to others, which in turn CEn. Besides, in relevant literature, characteristics of the brands are also treated as one of the main factors of CEn (Van Doorn et al., 2010). As regard to green brands, since being environmentally friendly and sustainable (Chen, 2010) are their outstanding characteristics, green brands may also lead to CEn particularly for consumers who have environmental concerns. Thus, when BIm seems to be appealing for environmentally consciousness consumers in terms of enriching their self-identity and self-image, they can potentially more engage with the brand (Hansen and Jensen, 2009). Relevant literature also states that there is a positive link between BIm and CEn (e.g., Hollebeek, 2011; Islam and Rahman, 2016). Thus, based on extant literature, we postulate that there is a positive influence of BIm on CEn.

**H<sub>1</sub>:** Brand image (BIm) for green brands has a significant positive impact on customer- engagement (CEn)

# 3.2. The Link between Customer Engagement (CEn) and Brand Attachment (BAtt)

CEn denotes personal connections of customers with a specific brand and these connections are manifested via cognitive, affective and behavioral actions out of the buying settings (So et al., 2014). In this context, CEn is treated as actions of customers for building emotional bonds with brands (Sashi, 2012). On the other hand, BAtt is the both affective and cognitive tie attaching the brand with the self of the customers (Park et al., 2006). So, it can be developed over time by enriching consumers' self through the experience (Park et al., 2008). Since CEn is a type of behavioral expression (Van Doorn et al., 2010), experiencing and preferring to use the green brands are also included in CEn which leads to increase in consumers' self. In relevant literature, it is also displayed that CEn increases the self-brand collection which is treated as one of the extents of BAtt (Park et al., 2010). Thus, drawing upon the literature, we propose that customers who are actively and eagerly engaged in green brands

can develop cognitive and affective ties with these brands. In other words, CEn increases the BAtt. Hence, we posit that;

**H<sub>2</sub>:** Customer-engagement (CEn) for green brands has a significant positive influence on brand attachment (BAtt)

## 3.3. The Link between Brand Image (BIm) and Brand Attachment (BAtt)

A brand with a strong BIm is frequently associated with higher value by consumers (Richardson et al., 1994). This makes BIm important for consumers who use brands to mirror their identities through symbolic meaning of consumption (Lau and Phau, 2007). Accordingly, consumers can more prefer brands that represent their self-image (Wattanasuvan, 2015) and self-concept (Liu et al., 2008). Thus, the more the brand is congruent with their self-concept, the more consumers can create stronger emotional bonds with these brands (Aaker, 1997). On the other hand, BAtt can be established by improving customers' self by the way of the experience regarding brand's main ideology or values and allowing them to chase their goals (Park et al., 2008).

As regard to green brands, the BIm can be delineated as consumers' total perceptions toward the brand whether it has environmentally sustainable and friendly values (Chen, 2010). So, in order strengthen BIm toward their green brands, companies must enable their customers to think that their brands are environmentally friendly and sustainable (Chen and Chai, 2010). As seen in relevant literature that the core values of green brands are being environmentally friendly and sustainable. In this sense, if consumers believe that the BIm of green products matches their self-value and self-concept with respect to environmental concerns, they will develop more BAtt toward green brands. In extant literature, several research also reveal that BIm has a positive influence on emotional BAtt in different contexts (e.g., Chen et al., 2017). Thus, based on extant literature on BIm-BAtt interaction, we can assert that BIm toward green brands has a significant positive impact on BAtt.

**H<sub>3</sub>:** Brand image (BIm) for green brands has a significant positive influence on brand Attachment (BAtt)

# 3.4. The Link between Brand Attachment (BAtt) and Brand Loyalty (BLo)

In relevant literature, BAtt seems as one of the drivers of several outcomes such as intention to buy, recommend, intention to re-visit, defending the brand and resilience to negative word of mouth (Japutra et al., 2014). The persistent research on BAtt in different contexts also indicate that BAtt also leads to BLo (e.g., Loureiro et al., 2012; Vlachos et al., 2010). In this context, since BAtt influences behaviors of customers (e.g., Park et al., 2010), drawing upon the extant research, we can posit that BAtt toward green brands lead to BLo for these brands, as well.

H<sub>4</sub>: Brand attachment (BAtt) for green brands has a significant positive impact on brand loyalty (BLo)

# 3.5. The Mediating Role of Customer Engagement (CEn) on The Link between Brand Image (BIm) and Brand Attachment (BAtt)

In general, CEn can be designated as any involvement of customers with a brand (Ullah et al., 2021). In this context, CEn can also be denoted as behavioral expression (Van Doorn et al., 2010). On the basis of this behavioral approach, CEn can be portrayed as brand-related behavioral demonstration of consumers, arising due to motivational drivers. Accordingly, CEn

is also the reflection of emotional customer-brand relationships which can be observed into several behaviors (Leckie et al., 2021). For instance, positive word-of mouth communication, influencing acquaintances and giving recommendations to the other customers about the brands are manifestations of behavioral engagements (Pansari and Kumar, 2017). In this context, the more the consumers involve and engage with the brands, the more the close relationship that they develop with brands (Leckie et al., 2021). As a result of this close relationship, the connection between customer and the brand is becoming strong, and this turns into stronger BAtt (Chen et al., 2017). In this context, while BIm of green brands influences the BAtt, CEn also affects the link between BIm and BAtt toward green brands. Thus, we posit that CEn can mediate the link between BIm and BAtt toward green brands.

H<sub>5</sub>: Customer engagement (CEn) mediates the link between brand image (BIm) and brand attachment (BAtt) toward green brands

Building on the foregoing stated above, the hypotheses of the study are given in Figure 1.

Brand Image (BIm)

H2

Brand Attachment (BAtt)

H4

Brand Loyalty (BLo)

Figure 1. Conceptual Model of the Study

### 4. Methodology

# 4.1. Sampling and Data Collection Method

The data of the study was compiled by employing online, cross-sectional and self-administrated questionnaires sent to the Turkish participants who are consumers, as well. To decide on the final version of the questionnaire, it was conducted a pilot study with 43 participants to control whether the items in the questionnaire were clear for participants and to check that whether the face and context validity were ensured. Depending on the valuable feedbacks of the pilot study, very small revisions were made. Then, final form of the questionnaire was prepared.

The data of the study was collected at the time period from 09.09.2021 to 07.10.2021 with the survey method. Ethics Committee obligation has been introduced in every survey study conducted since 2020. Since the basis for this study is survey and it is done after 2020, this study also requires ethics committee approval. Nevertheless, ethics committee approval letter for this study has been taken later than the data collection process because of pandemic conditions. A total of 442 participants were reached through convenience sampling method. However, it was required to exclude 14 of the questionnaires from the data analysis because of

missing and inaccurate responses. Accordingly, a total of 428 questionnaires were employed in the data analysis, ensuring a response rate of 96.83 percent. Table 1 gives demographic characteristics of the sample who attended to the study. In this context, a total of 51.17 percent of the participants are female and the rest of them are male. The age profile of the participants intensively ranges between 18 and 73 years old. As regard to monthly household income, 24.07 percent of the total participants have income ranging between 7501 TL and 10000 TL and 22.90 percent of them have income varying between 5001 TL and 7500 TL. Besides, 21.26 percent, 16.82 percent, and 14.95 percent have monthly household income level between 10001 TL and over, 2501 TL and 5000 TL, and 2500 TL and lower, respectively. With respect to distribution of education of the participants, 44.39 percent has bachelor's degree; 24.53 percent has postgraduate degree; 23.83 percent has high school degree. The occupation distribution indicates that a vast majority of the participants are working at private enterprises and government institutions. Finally, the marital status of the sample demonstrate that a large amount of the participants is married with children.

**Table 1: Characteristics of the Sample** 

	Frequency	Percentage %
Gender		
Female	219	51.17
Male	209	48.83
Age		
18–25	85	19.86
26–35	115	26.87
36–45	100	23.36
46–55	65	15.19
56 and older	63	14.72
Household monthly income		
2500 TL and lower	64	14.95
2501 TL-5000 TL	72	16.82
5001 TL-7500 TL	98	22.90
7501 TL-10000 TL	103	24.07
10001 TL and over	91	21.26
Education		
High school	102	23.83
Bachelor's degree	190	44.39
Postgraduate	105	24.53
Other	31	7.25
Occupation		
Employee in government	123	28.74
Employee in private firm	95	22.20
Self-employed	48	11.21
Retired	41	9.58
Student	64	14.95
Other	57	13.32
Marital Status		
Single	123	28.74
Married without children	61	14.25
Married with children	176	41.12
Other	68	15.89

## 4.2.Design of Questionnaire

Drawing upon the extant literature, a structured questionnaire including five parts (i.e., BIm, BAtt, CEn, BLo and demographics) was developed to analyze the conceptual model determined for this present study. In this context, BIm scale including 5 items was adapted from

Chen et al. (2017), who developed the items from Chen (2010), Cretu and Brodie (2007) and Padgett and Allen (1997), while CEn scale with 4 items was adapted from Leckie et al. (2021), who developed their items from Ullah et al. (2021). Finally, BAtt scale consisting of 4 items was adapted from Chen et al. (2017), who developed their items from Park et al. (2010) and Thomson et al. (2005), and BLo scale was adopted from Leckie et al. (2021) who developed the items from Carroll and Ahuvia (2020). All of the items used in the questionnaire was measured with a 5-point Likert-type scale which has indicators ranging between "1 = strongly disagree" and "5 = strongly agree."

To enhance the understandability of the questionnaire for participants, all of the items in the questionnaire were initially outlined in English and afterwards translated into Turkish by utilizing back translation process.

# 4.3. Analysis of the Study

The obtained data were tested by employing descriptive statistics, Cronbach's coefficients, and factor analysis through SPSS version 23. On the other hand, to analyze the suggested model, structural equation modelling was performed in the study. Accordingly, confirmative factor analysis and common method variance were carried out and the proposed model was tested through LISREL. In addition, to probe the mediating impact of customer engagement on the link between brand image and brand attachment, Sobel test was also conducted.

### 4.3.1. Validity Tests of Items

To evaluate the associated links between the measured constructs for 16 items, the construct validity was performed initially through factor analysis by employing principal component analysis with varimax rotations as the extraction method. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's tests were also carried out for each scale adopted in the study to evaluate whether the sampling adequacy of the obtained data was quite enough for factor analysis. In addition, the factor structures of measured constructs were figured out to check whether any item was not successful to load on a single factor at 0.50 or less (Hair et al., 2013). The findings regarding measurement tools, KMO and Bartlett's tests were displayed at Table 2.

As respects to Table 2, the KMO measure for the BIm factor, BAtt factor, CEn factor and BLo factor was 0.871, 0.822, 0.810, and 0.656, respectively and none of these 16 items were excluded from the data analysis because the factor loadings of each one was above 0.50. The Bartlett test of sphericity was found significant for BIm ( $\chi^2 = 1082.906$ , p < 0.05), BAtt ( $\chi^2 = 1059.598$ , p < 0.05), CEn ( $\chi^2 = 795.045$ , p < 0.05) and BLo ( $\chi^2 = 782.684$ , p < 0.05). As regard to BIm, only one factor was extracted with the eigenvalue = 3.401 that was above 1, and 68.013 percent of the variance was explained. For BAtt, only one factor was extracted with the eigenvalue = 3.078 that was above 1, and 76.943 percent of the variance was explained. For CEn, only one factor was extracted with the eigenvalue = 2.808, which is larger than 1, as well, and 70.206 percent of the variance was explained. Finally for BLo, only one factor was extracted that has the eigenvalue = 2.414, which is also above 1, and 80.459 percent of the variance was explained. In this context, since only a single factor was extracted for each construct, rotation was not found necessary. Thus, single factor was used for all constructs for further analysis.

Based on KMO values and Bartlett's tests' results, exploratory factor analysis seems to be performed with all of the items. The result of exploratory factor analysis displays that KMO measure of sampling adequacy test value was found as 0.923 and Bartlett's test value was found

significant ( $\chi^2 = 4749.789$ , p < 0.05). Since KMO value was larger than 0.90, this value shows that the data structure of the study was quite enough for factor analysis with respect to sampling adequacy (Şencan, 2005). Then, by employing principal component analysis with varimax rotation as the extraction method, factors were reduced. Referring to Table 3, since all factor loadings were larger than 0.50, no items were dropped from the data analysis (Costa-Font and Gil, 2009). Finally, 4 factors and 16 items, which have eigenvalue greater than 1, and explain the 74.828 percent of the total variance, were found.

Table 2. Analysis of Measurement Tools

	BIm	BAtt	CEn	BLo
KMO Measure of	0.871	0.822	0.810	0.656
Sampling Adequacy				
Bartlett's Test of	$\chi^2 = 1082.906$	$\chi^2 = 1059.598$	$\chi^2 = 795.045$	$\chi^2 = 782.684$
Sphericity	df: 10 <b>p: 0.000</b>	df: 6 <b>p: 0.000</b>	df: 6 <b>p: 0.000</b>	df: 3 <b>p: 0.000</b>
Number of Factors				
According to Factor	1 Factor	1 Factor	1 Factor	1 Factor
Loadings				
Total Variance Explained	3.401	3.078	2.808	2.414
% of variance explained	68.013	76.943	70.206	80.459

**Table 3. Factor Loadings for Constructs** 

Measure	Loadings
BIm	
• <b>BIm1:</b> Green brands are regarded as the benchmark of commitment to environment.	0.698
• BIm2: Green brands' environmental reputation is outstanding.	0.756
• BIm3: Green brands' environmental performance is successful.	0.734
• <b>BIm4:</b> Green branding is based upon its emphasis on environmental protection.	0.781
• BIm5: Green brands' environmental commitment is trustworthy.	0.781
BAtt	
• BAtt1: Eco-friendliness of green brands makes you feel strongly passionate about it.	0.776
BAtt2: Environmental concern of green brands makes you feel strongly passionate	0.751
about it.	
• <b>BAtt3:</b> Environmental performance of green brands makes you crave for it.	0.783
BAtt4: Extraordinary environmental features of green brands make you willing to	
pay for it.	0.754
CEn	
• <b>CEn1:</b> I say good things about green brands to others.	0.689
• CEn2: I encourage my acquaintances to buy and use green brands.	0.732
• CEn3: I recommend green brands to my acquaintances who seek my advice.	0.668
• <b>CEn4:</b> I give feedback regarding my experiences with green brands to their firms.	0.600
Brand Loyalty	
• <b>BLo1:</b> In contrast to other brands, green brands are the only brands that I will buy.	0.716
BLo2: If green brands are not available, I can delay buying.	0.901
BLo3: I will 'do without' instead of buying another brand.	0.891
KMO measures of sampling adequacy: 0.923	
Bartlett's Test $\chi^2 = 4749.789$ df: 120 p: 0.000	
Number of factors: 4	
Number of items: 16	
Total variance explained: 74.828 %	

### 4.3.2. Measurement Model

After conducting exploratory factor analysis, confirmatory factor analysis (CFA) was also carried out to the items in the questionnaire via LISREL. In this context, firstly goodness of fit indices signifying the fit between factor structure and data were checked (Hair et al., 2013). The values regarding goodness of fit indices were shown in Table 4.

**Table 4. Goodness of Fit Indices** 

Fit Indices	Perfect Fit	Acceptable Fit	Findings	Results
	Indices Criteria	Indices Criteria		
$a\chi^2/df$	$0 \leq \chi^2/df \leq 2$	$2 \le \chi^2/\mathrm{d}f \le 3$	2.95	Acceptable
				Fit
<sup>b</sup> AGFI (Adjusted Goodness of	$0.90 \leq AGFI \leq 1.00$	$0.85 \le AGFI \le 0.90$	0.89	Acceptable
Fit Index)				Fit
°GFI (Goodness of Fit Index)	$0.95 \leq GFI \leq 1.00$	$0.90 \le \text{GFI} \le 0.95$	0.92	Acceptable
				Fit
<sup>c</sup> CFI (Comparative Fit Index)	$0.95 \leq CFI \leq 1.00$	$0.90 \le CFI \le 0.95$	0.98	Perfect Fit
°NFI (Normed Fit Index)	$0.95 \leq NFI \leq 1.00$	$0.90 \le NFI \le 0.95$	0.98	Perfect Fit
°NNFI (Non-normed Fit Index)	$0.95 \leq NNFI \leq 1.00$	$0.90 \le NNFI \le 0.95$	0.98	Perfect Fit
<sup>c</sup> RFI (Relative Fit Index)	$0.95 \leq RFI \leq 1.00$	$0.90 \le RFI \le 0.95$	0.97	Perfect Fit
°IFI (Incremental Fit Index)	$0.95 \le IFI \le 1.00$	$0.90 \le IFI \le 0.95$	0.98	Perfect Fit
<sup>d</sup> RMSEA (Root Mean Square	$0.00 \le RMSEA \le 0.05$	$0.05 \le RMSEA \le 0.08$	0.068	Acceptable
Error of Approximation)				Fit
dSRMR (Standardized Root	$0.00 \leq SRMR \leq 0.05$	$0.05 \le SRMR \le 0.08$	0.048	Perfect Fit
Mean Square Residual)				
eRMR (Root Mean Square	$0 \leq RMR \leq 0.05$	$0 \le RMR \le 0.08$	0.053	Acceptable
Residual)				Fit

<sup>&</sup>lt;sup>a</sup>Kline (2011).

As respects to Table 4, the model fit indices (i.e.,  $\chi^2(95_{df}) = 280.45$  (p = 0.00), GFI = 0.92, AGFI = 0.89, NNFI = 0.98, NFI= 0.98, IFI = 0.98, CFI = 0.98, SRMR= 0.048, RMR= 0.053, and RMSEA = 0.068) display that there was a good fit between factor structure and the data (Tabachnick and Fidell, 2013). As respect to CFA results, standardized factor loadings between latent and observed variables varied from 0.62 to 0.93 (See Table 5). Referring to Table 5, each observed item was over the threshold value of 0.50 (Hair et al, 2013). Thus, they were welcomed as statistically significant (p  $\leq$  0.05). In addition, since all of the t-values ranged from 13.00 to 22.51, all the relations between latent and observed variables were accepted as statistically significant at 0.05 level (t > 1.96). Accordingly, all of the items were included to the study. Besides, since all of the standardized factor loading estimates have to outstrip 0.5 and all of the t-values have to be above the 3.0, convergent validity was established, as well (Hair et al., 2013).

As respects to Table 5, Cronbach's alphas of the all constructs ranging between 0.857 and 0.900 were above the threshold value of 0.70 as a rule of thumb, and so all constructs were accepted that they have acceptable reliability (Nunnally, 1978). In addition, Cronbach's alpha of the scale was found as 0.935, which also confirmed that the model was quite reliable. With respect to composite reliability (CR) values, although CR values between 0.60 and 0.70 are adequate, the values greater than 0.70 are accepted as having good construct reliability (Hair et al., 2014). In this sense, referring to Table 5, CR values varying from 0.77 to 0.88 signified that there was a quite enough construct reliability (Fornell and Larcker, 1981). In addition, if all CR

<sup>&</sup>lt;sup>b</sup>Schermelleh-Engel and Moosbrugger (2003).

<sup>&</sup>lt;sup>c</sup>Baumgartner and Homburg (1996), Marsh et al., (2006).

<sup>&</sup>lt;sup>d</sup>Browne and Cudeck (1993).

eGolob (2003).

values are greater than the all of the average variance extracted (AVE) values, convergent validity was ensured, as well (Anderson and Gerbing, 1988; Chau, 1997). Besides, each AVE value has to be greater than 0.50 to have enough convergent validity (Bagozzi and Yi, 1988). As respects to Table 5, AVE values for BIm, BAtt and BLo were calculated as 0.56, 0.59, and 0.71, respectively; whereas it was calculated as 0.45 for CEn. In this context, despite the AVE value has to be at least 0.50, the calculated value lower than 0.50 for CEn could be still welcomed because the CR value for customer engagement was greater than 0.60 (Fornell and Larcker, 1981). Therefore, the AVE value lower than 0.50 could not cause any obstacle for the present study.

**Table 5. Construct Measurement** 

Factors	Standardized	t-	Alpha	CR	AVE	Mean	SD
	Loadings	values	Coefficient				
BIm			0.882	0.87	0.56		
BIm1	0.67	15.18				4.467	0.7930
BIm2	0.75	17.51				4.229	0.8785
BIm3	0.81	19.80				3.993	0.9066
BIm4	0.78	18.68				4.238	0.8516
BIm5	0.84	20.89				3.995	0.9384
BAtt			0.900	0.85	0.59		
BAtt1							
BAtt2	0.85	21.33				4.278	0.9078
BAtt3	0.88	22.51				4.278	0.8601
BAtt4	0.79	19.38				4.318	0.7904
	0.85	20.94				4.292	0.8527
CEn			0.857	0.77	0.45		
CEn1							
CEn2	0.79	19.20				4.227	0.8989
CEn3	0.84	20.84				3.888	1.0806
CEn4	0.83	20.49				4.241	0.9030
	0.64	14.30				3.421	1.0694
BLo			0.877	0.88	0.71		
BLo1	0.93	21.28				3.528	1.1560
BLo2	0.77	17.07				2.930	1.2280
BLo3	0.62	13.00				2.706	1.2553

<sup>\*</sup>Item fixed to set the scale

Fit statistics:  $\chi^2(95_{df}) = 280.45$  (p=0.000), GFI = 0.92, AGFI = 0.89, NFI = 0.99, NNFI = 0.98, IFI = 0.98, CFI = 0.98, RMSEA = 0.068, RMR = 0.053, SRMR = 0.048.

In such studies, it is crucial to check the possibility of common method bias via single-factor test of Harman (Podsakoff and Organ, 1986). In this context, after loading all indicators on a single factor, CFA was re-performed (Podsakoff et al, 2003). The results states that there was a poor fit between the model and the data (i.e.,  $\chi^2$  (104df) = 1769.88 (p = 0.00), GFI=0.66; AGFI= 0.55, NNFI = 0.87, RMR= 0.12, SRMR= 0.100, RMSEA = 0.194). Therefore, it can be readily concluded that common method bias could not lead to any problem for the study.

### 4.3.3. Structural Model

The hypotheses established by the proposed model in the study were tested by using structural equation modeling. Main assumptions regarding the modeling (i.e., normality, linearity, multicollinearity, and sampling adequacy) were checked and verified before the data analysis (Hair et al, 2013). Initially, the model fit indices (i.e.,  $\chi^2(96_{df}) = 280.53$  (p = 0.00), GFI

 $CR = composite\ reliability,\ AVE = average\ variance\ extracted,\ SD = standard\ deviation$ 

= 0.92, AGFI = 0.89, NNFI = 0.98, NFI= 0.98, IFI = 0.98, CFI = 0.98, SRMR= 0.047, RMR= 0.052, and RMSEA = 0.067) indicated a good fit between the data and structural model (Tabachnick and Fidell, 2013). As suggested in H<sub>1</sub>, the link between BIm for green brands and CEn was found as statistically significant in a positive way ( $\beta = 0.68$ , t = 12.51, p < 0.05), and so H<sub>1</sub> was supported. In line with H<sub>2</sub>, CEn had a significant positive influence on BAtt for green brands ( $\beta = 0.63$ , t = 11.82, p < 0.05). Accordingly, H<sub>2</sub> was supported, as well. As predicted in  $H_3$ , BIm for green brands positively and significantly affected BAtt for green brands ( $\beta = 0.72$ , t = 14.47, p < 0.05), and so H<sub>3</sub> was also supported. Consistent with H<sub>4</sub>, the link between BAtt and BLo for green brands was found as significant in a positive way ( $\beta = 0.80$ , t = 12.55, p < 0.05). Hence, H<sub>4</sub> was also supported. For H<sub>5</sub>, the four conditions proposed by Baron and Kenny (1986) were followed to analyze mediating impact of CEn on the link between BIm for green brands and BAtt. The conditions offered by Baron and Kenny (1986) are: there is a significant link a) between BIm for green brands and BAtt ( $\beta = 0.72$ , p < 0.05); between BIm for green brands and CEn ( $\beta = 0.68$ , p < 0.05); and c) between CEn toward green brands to BAtt ( $\beta =$ 0.63, p < 0.05); when testing the mediating influence of CEn statistically, the significant relationship between BIm for green brands and BAtt as we observed in the first condition ( $\beta$  = 0.72) has decreased considerably ( $\beta = 0.29$ , t = 6.65, p < 0.05). In this context, rather than full mediating impact, partial mediating impact of CEn on the link between BIm for green brands and BAtt toward these brands was found. So, H<sub>5</sub> was partially supported. Finally, Sobel test was performed to observe the significance impact of mediation on suggested relationship. Sobel test result demonstrates that mediating influence of CEn on the associated link was proved statistically significant (Sobel z-value = 9.55, p< 0.05).

**Table 6. Structural Equation Modelling Results** 

Hypothesis	Standardized parameter estimates	t-value	p- value	Hypothesis status
H1: BIm → Cen	0.68	12.51	< 0.05	Supported
<b>H2:</b> CEn → Batt	0.63	11.82	< 0.05	Supported
H3: BIm → Batt	0.72	14.47	< 0.05	Supported
H4: BAtt → Blo	0.80	12.66	< 0.05	Supported
<b>H5:</b> BIm → CEn → BAtt	0.29	6.65	< 0.05	Partially
				supported

Fit statistics:  $(\chi^2(96_{df}) = 280.53 \text{ (p} = 0.00), \text{ GFI} = 0.92, \text{ AGFI} = 0.89, \text{ NNFI} = 0.98, \text{ NFI} = 0.98, \text{ IFI} = 0.98, \text{ CFI} = 0.98, \text{ SRMR} = 0.047, \text{ RMR} = 0.052, \text{ and RMSEA} = 0.067).$ 

## 5. Conclusion and Recommendations

As environmental problems are dramatically alarming the world, consumers and companies increasingly seek for green brands for sustainability. Today, growing number of consumers with environmental concerns prefer to use and consume green brands without giving harm to the environment. In this context, as well as focusing on their profitability and achieving their business sustainability, contemporary companies are developing more green brands, which ensure an important eco-advantage over its competitors. As one of the outcomes of holistic marketing approach, which emphasizes the profitability of the company, customer satisfaction and well-being of society at the same time, green branding and green brands have been drawn the attention of both academicians and practitioners who have environmental sustainability concerns.

Since there is a growing interest in green brands and green branding, this study explored the interaction between BIm, BAtt, CEn and BLo for green brands. The results of the study revealed that BIm for green brands triggered both CEn and green BAtt, and green BAtt led to

green BLo. In this context, the study of Chen et al (2017), which suggested that green BIm positively influences green BAtt, was supported, as well. Also, partial mediation impact of CEn was found on the link between BIm and BAtt for green brands. Drawing upon the results of the study, this study provides contributions to the relevant literature as follows.

First, although the concepts like BIm, BAtt, CEn and BLo have been examined by several studies on different contexts, this present study examines the interaction between BIm, BAtt, CEn and BLo for green brands as a previously untapped context. In this sense, this study incorporates the concepts of green branding to flourish a framework to establish green BLo and BAtt from green BIm and CEn. Second, although there are studies on green BAtt and green BIm (Chen et al., 2017) and CEn and green BLo (Leckie et al., 2021) in relevant literature, the associated links between the variables proposed in this study have not been explored before. So, this study provides fruitful contributions to green branding literature with the results of the analysis of the structural model. Third, this present study reveals that the link between green BIm and green BAtt is partially mediated by CEn behavior. Accordingly, the findings of the study present that impact of green BIm on green BAtt decreases when CEn toward green brands is added in the model. Thus, this study is the first study that explores the mediating impact of CEn on the link between BIm and BAtt in green branding context. Fourth, the findings of the study reveal that enhancing CEn behavior toward green brands can help consumers to increase their green BAtt, which positively influences green BLo. So, to generate green BLo, the impact of CEn toward green brand on BAtt is emphasized in this study. Finally, based on its findings, this study extends the extant research on green branding and sustainability. Thus, the findings of the study provide contributions to extant literature and open the way for further research on green branding.

The results of the study have also managerial implications by providing practical contributions to both marketing and brand managers as follows. First, the findings of the study verify that BIm is important to enhance both CEn behavior and BAtt. So, to establish strong, unique and favorable green BIm, companies have to develop new ideas, plan new strategies and develop appealing communication campaigns to position their green brands in their customers' minds uniquely and in a favorable way. Accordingly, by creating the desired green BIm, customers can be ensured that they engage and attach more in green products by companies. In addition, since BIm also contributes to the formation of brand equity (Aaker, 1996), generating green BIm with right communication strategies without greenwashing is also important to build strong green brand equity. Second, this study indicates that increasing CEn behaviors can enhance green BAtt, and so green BLo. In this context, if companies find novel ways like organizing green events or using gamifications to increase customer involvement and engagement in green brands, they can increase the consumers' green BAtt and green BLo. Therefore, the strength of the both cognitive and affective bonds linking the green brand with the consumers can be improved with the activities for increasing CEn toward these brands and the bonds can make customers more loyal to the green brands. Finally, since BAtt develops over time, companies need to actively work for building emotional relationships with environmentally consciousness consumers and their green brands through awareness raising communication campaigns and products. In this context, companies can let consumers to pursue their own goals by pleasing them through green brand experiences and by affording green brand meanings that lead to symbolic self-expression for themselves.

This present study has also several limitations which should be remarked. First, data of the study were gathered through survey method, and so what the participants actually think about green brands could not be comprehensively understood. Thus, for further research, as well as quantitative data, qualitative data which can also be collected through in-depth interviews, focus group or observations should be employed to better understand the thoughts

and perceptions of consumers about green brands. Second, this study was designed as a cross-sectional study through which the data were obtained at one specific point in time from the same participants. To address this limitation, further research may be designed as longitudinal study which examines variables over an extended time period because particularly BAtt, BIm and BLo are brand-related constructs that can develop over time. Third, this study is limited to the interaction between BIm, BAtt, CEn and BLo for green brands. On the other hand, in order to understand how to create strong brand equity for green brands, some other variables such as brand knowledge, quality perceptions and brand attitudes can be added into the conceptual model. Finally, the study was performed in Turkey with 428 participants. Thus, although the sample size was good enough to test the conceptual model, it is crucial to work with larger sample size to more generalize the findings to the whole population.

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