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YEŞİL MARKA İMAJI VE YEŞİL SATIN ALMA NİYETİ OLUŞTURMADA YEŞİL KULAKTAN KULAĞA İLETİŞİMİN ROLÜ: ARACILIK MODELLİ BİR ARAŞTIRMA

EXPLORING THE ROLE OF GREEN WORD-OF-MOUTH IN SHAPING GREEN BRAND IMAGE AND GREEN PURCHASE INTENTIONS: A MEDIATED MODEL

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ÖZET

Çevreyi koruma fikri, çevre dostu ürünlere olan talebe doğru bir değişim yaratmıştır. Bu çalışma, kozmetik ürünleri bağlamında yeşil kulaktan kulağa iletişim, yeşil marka imajı ve yeşil satın alma niyeti arasındaki ilişkileri araştırmaktadır. Çalışmada çevrimiçi anket ve kolayda örnekleme yöntemi seçilmiştir. Türkiye'nin Antalya şehrinde yeşil kozmetik ürünleri kullanan 274 katılımcının verileri SPSS 27 ve AMOS 24 yazılımları kullanılarak analiz edilmiştir. Bulgular, yeşil marka imajı ile satın alma niyeti arasında güçlü bir ilişki olduğunu ve tüketicilerin olumlu bir çevresel imaja sahip markalardan satın alma olasılığının daha yüksek olduğunu ortaya koymuştur. Buna ek olarak, yeşil marka imajının, yeşil kulaktan kulağa iletişimin satın alma niyetine olan etkisinde kısmi aracılık rolünün bulunduğu gözlemlenmiş olup; bu da olumlu bir yeşil marka imajının aracı bir faktör olarak hizmet ettiğini ve yeşil ağızdan ağıza iletişimin dolaylı olarak da artan satın alma niyetine etkisi olduğunu göstermektedir. Sonuç olarak, şirketlerin yeşil uygulamalara öncelik vermesi ve sürdürülebilir girişimler yoluyla güçlü, otantik bir marka imajı oluşturması gerektiği görülmüştür. Olumlu yeşil kulaktan kulağa iletişim, tüketicilerin yeşil marka imajı algısını önemli ölçüde artırabilmekte ve satın alma niyetlerine de olumlu etki yapabilmektedir. Ancak, yeşil kulaktan kulağa iletişim ile yeşil marka imajı ve yeşil satın alma niyeti arasında hem doğrudan hem de dolaylı ilişkiler bulunduğu için, şirketlerin olumsuz algıya yol açabilecek yeşil uygulamalardan kaçınmaları önem taşımaktadır.

Anahtar Kelimeler: Yeşil Kulaktan Kulağa İletişim, Yeşil Marka İmajı, Yeşil Satın Alma Niyeti, Yeşil Ürünler

JEL Kodları: M30, M31

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[1] Bu çalışma, "IMPACT OF GREEN WORD OF MOUTH ON GREEN BRAND IMAGE, AND CONSUMER`S PURCHASE INTENTIONS" başlıklı yüksek lisans tezinden üretilmiştir.

ABSTRACT

The idea for protecting the environment has resulted in a shift in demand for eco-friendly products. This study investigates the relationships between green word-of-mouth (WOM), green brand image, and green purchase intentions in the context of cosmetic products. In this study, convenience sampling method through an online survey has been chosen. The data of 274 participants in Antalya, Türkiye who used green cosmetic products have been analyzed using SPSS 27 and AMOS 24 software. The findings revealed a strong correlation between green brand image and purchase intentions, with consumers more likely to purchase from brands that have a positive environmental image. Moreover, green brand image partially mediated the relationship between green WOM and purchase intentions, indicating that a positive green brand image serves as an intermediary factor, converting promising green WOM into increased purchase intentions. The result implies that companies should prioritize green practices and build a strong, authentic brand image through sustainable initiatives. Positive green WOM can significantly enhance consumers' perception of green brand image and boost purchase intentions. However, companies must be cautious of negative practices, as both direct and indirect relationships exist between green WOM, green brand equity, and green purchase intentions.

Keywords: Green Word-of-Mouth, Green Brand Image, Green Purchase Intentions, Green Products

1. INTRODUCTION

In recent years, the increased recognition and concern for protecting the environment have resulted in a significant surge in the demand for environmentally friendly products. Green products are specifically designed, manufactured, and distributed in ways that minimize their negative impact on the environment throughout their entire lifecycle. As consumers become more mindful of the environmental consequences associated with their purchasing choices, comprehending the factors that influence their preference for green products has become a central focus of research in the fields of marketing and consumer behavior. Numerous studies have delved into investigating the motivations and influences that drive consumers towards choosing green products. Factors such as environmental consciousness, eco-labeling, and the perceived eco-friendliness of products have been identified as crucial determinants of consumer behavior in this realm. These factors play a significant role in shaping consumer attitudes, perceptions, and purchasing intentions regarding green products (D'Souza et al., 2007; Majeed et al., 2022).

According to the American Marketing Association (Kotler, 2012), Green marketing refers to the promotion and selling of products that are believed to be environmentally friendly. It encompasses various actions, such as modifying products, making changes to the production methods, adjusting packaging, and adapting advertising strategies. The terms "Environmental Marketing" and "Ecological Marketing" are often used interchangeably with green marketing to convey the same concept. "Green Marketing" is a comprehensive marketing approach that focuses on ensuring minimal harm to the environment throughout the entire lifecycle of a product, including production, marketing, consumption, and disposal. Terms like recyclable, natural-derived, ozone-friendly, paraben-free, and phosphate-free are indicative of the principles and practices associated with green marketing (Kotler, 2012).

Green word-of-mouth (GWOM) is gaining increasing attention as a key factor in shaping consumer behavior toward environmentally friendly products. With growing environmental concerns and a rising demand for sustainable options, understanding the impact of green word-of-mouth on green brand image and consumer purchase intentions has become a critical area of research in marketing. Word-of-mouth (WOM), the spread of information and opinions through personal communication channels, has long been recognized as a powerful influencer on consumer decisions. Green WOM specifically refers to the sharing of positive or negative information about eco-friendly products or brands. This form of WOM extends beyond traditional advertising, as consumers tend to trust recommendations from peers more than marketing messages when it comes to environmentally conscious choices. Studies have shown that green WOM can significantly influence a brand's reputation and consumers' purchasing intentions. For example,(Nahar & Silintowe, 2021) found that a company's image plays a key role in how green marketing efforts influence consumers' purchase intentions. Similarly, (Jasin, 2022) highlighted that electronic word-of-mouth (eWOM) and social media marketing significantly affect the brand perception and purchase intentions of small and medium-sized enterprises (SMEs). In India, (Kala & Chaubey, 2018) found that eWOM positively impacts brand perception and buying intent for lifestyle products.

Green Cosmetics represents an innovative concept focused on sustainability and eco-friendliness, which have become fundamental requirements and promising prospects for both businesses and consumers (Vincent, 2015). The term "green" is now commonly associated with terms like "organic," "sustainable," and "healthy." This shift in terminology reflects growing concerns about climate change, global warming, and environmental degradation, which have significantly increased the attraction to eco-conscious products (Fonseca-Santos et al., 2015). Over time, consumers have become more environmentally conscious, influencing their purchasing behavior in the cosmetics

industry. This shift is driven by a growing preference for products that are healthy, safe, and free from harmful chemicals. The increasing degradation of the environment has further heightened consumer awareness of the necessity to choose green products, which are seen as a step toward maintaining both a healthy lifestyle and a cleaner environment (Luck & Ginanti, 2009).

In modern times, the cosmetics industry has undergone significant changes, becoming highly competitive and global, with a strong emphasis on quality, efficiency, and safety. Consumers have become more discerning, leading to increased importance placed on scientific research and product development by manufacturers. Moreover, consumers are now well-informed about environmental protection and sustainability, including issues related to animal welfare and the impact of cosmetic ingredients on the environment. Consequently, new cosmetic ingredients are required to meet environmental protection standards. Researchers have demonstrated the positive effects of various substances on skin health, either through their mechanisms of action or their functions. Animal and clinical research data have been primarily used to determine the biological and medicinal effects of substances such as collagen, ceramide, beta-carotene, astaxanthin, coenzyme Q10, colostrum, zinc, and selenium. The latest trends in cosmetic development revolve around the study of natural ingredients that have anti-aging properties and can help combat skin aging (Amberg & Fogarassy, 2019).

This study conducted a comprehensive review of existing literature, focusing on key variables such as green brand image (GBI), green word-of-mouth (GWOM), and green purchase intentions (GPI) within the cosmetic industry. The research aims to provide valuable insights into how businesses can effectively leverage word-of-mouth as a tool to enhance brand image and drive customer purchase intentions. Moreover, the study highlights that GWOM positively influences consumer`s intentions to purchase eco-friendly goods or services. However, it also emphasizes the mediating role of brand image in this relationship. Understanding these mediating factors enables businesses to refine their green marketing strategies and tailor their approaches to specific consumer segments, thereby maximizing their impact.

By addressing the following questions, the study uncovers valuable insights about GWOM, its impact on brand image and purchase intentions, and the factors that may influence these relationships:

1. Does green word-of-mouth influence the green brand image of eco-friendly products?

2. Is there a positive impact of green word-of-mouth on consumer purchase intentions for green products?

3. Does green brand image mediate the relationship between green word-of-mouth and green purchase intentions in the context of green products?

2. HYPOTHESIS DEVELOPMENT AND CONCEPTUAL FRAMEWORK

2.1 Green Word-of-Mouth

Word-of-mouth marketing is a potent marketing tactic that uses testimonials and personal recommendations to advertise a good or service. Positive WOM may boost a brand's reputation and generate attention, which increases sales, study suggests that a positive green brand image can improve the impact of WOM on purchase intentions. Consumers are more inclined to believe and abide by advice from sources they believe to be environmentally conscious. Positive WOM regarding a business's goods or services is more likely to impact consumers' purchase intentions if that brand is considered environmentally friendly. In the green marketing literature, (Setiawan, 2018)

discovered that positive WOM considerably influenced purchase intentions for low-cost green cars, with the green brand image partially mediating. This suggests that a robust green brand reputation can improve WOM's influence on customers' purchase intentions. If customers feel that a business is environmentally conscious, they are more likely to believe and follow the recommendations of other environmentally conscious customers. (Setiawan, 2018)

From a theoretical perspective, the concept of Green Word-of-Mouth (GWOM) can be grounded in two prominent psychological theories: the Theory of Planned Behavior (*Ajzen*, 1991) and Attribution Theory (Heider, 1958). According to Theory of Planned Behavior, individual behavior is driven by behavioral intentions, which in turn are influenced by attitudes, subjective norms, and perceived behavioral control. In the context of green marketing, GWOM serves as a social norm and external influence that shapes consumer attitudes and intentions toward purchasing eco-friendly products. When consumers hear positive environmental claims or experiences from their peers, it reinforces social expectations and aligns with their behavioral intentions to act sustainably. Moreover, Attribution Theory suggests that consumers evaluate the motivations behind a brand's environmentally friendly actions. If peers share positive experiences through GWOM that attribute green behavior to essential environmental concern rather than marketing tactics, this enhances the credibility and perceived authenticity of the brand. Consequently, consumers develop a stronger green brand image and a higher likelihood of green purchase intentions. Therefore, GWOM not only acts as a form of social proof but also reinforces psychological drivers such as credibility, responsibility, and shared environmental values, making it a powerful antecedent in influencing both brand perception and purchasing behavior.

The effect of electronic word-of-mouth (e-WOM) on brand image and purchase intention for lifestyle items in India was investigated in a study by (Kala & Chaubey, 2018). The study's results showed that e-WOM had a favorable impact on brand image and purchase intention, indicating that effective promotion of a business's eco-friendly goods or procedures through e-WOM can boost the green brand's reputation and increase consumer purchase intentions. This study suggests that e-WOM can be crucial in building and strengthening a company's green brand image, especially in emerging markets where eco-friendly products and practices are gaining popularity. (G. Li et al., 2021) studied the relationship between green brand image and consumers' purchase intentions toward sustainable fashion products. The results revealed that green brand image had a notable impact on consumers' purchase intentions, and this influence was mediated by their environmental consciousness and perceived value of the product. To put it differently, research studies show that a positive green brand image can influence consumers' purchase decisions for sustainable fashion products. This effect is partially explained by their environmental consciousness and the product's perceived value. Suggesting that a company's green brand image can positively influence consumers' purchase intentions towards sustainable fashion products and that perceived product value and environmental consciousness are essential factors that mediate this relationship.

The study by (Liao et al., 2020) clarifies the crucial role eco-friendly marketing and psychological advantages may play in determining how the spread of green WOM affects customers' eco-friendly attitudes and purchase intentions. The study found that customer views about becoming green, as well as their purchasing intentions, were significantly impacted by green WOM. This implies that strong green word-of-mouth (WOM) can substantially affect how customers perceive and behave toward green products. Furthermore, the study revealed that green marketing and psychological benefits partially mediated the association between green WOM and customers' green attitudes, values, and purchase intentions. This highlights the importance of promoting

the psychological advantages of green products and engaging in effective green marketing to enhance the impact of green WOM on consumers' attitudes and purchase intentions. By doing so, companies may increase their chances of influencing customers to make environmentally friendly purchase decisions.

2.2 Green Brand Image

The concept of green brand image has been recognized as a significant factor that affects consumers' attitudes and Behavior towards environmentally friendly products. A brand's green image is a perception of its environmental policies and practices, which consumers use to evaluate its credibility and trustworthiness. According to studies, a positive green brand reputation may significantly affect how customers view eco-friendly products and their propensity to buy them. To better understand how customers' choices for green products might be influenced, (Chin, Nur, Sulaiman et al., 2018) looked at the automobile sector. The study found that green brand image had a significant effect on consumers' purchase intentions and that the perceived environmental performance of the brand mediated this relationship. This implies that a company's green brand image is crucial in determining consumers' purchasing intentions towards environmentally friendly products, especially in industries where environmental performance is vital. (Chin, Nur, Sulaiman et al., 2018)

Green brand image describes how customers see a company's environmental policies; Consumers that care about the environment are more inclined to patronize businesses with a solid green brand image. In a study conducted by (Setiawan, 2018) the author found that the relationship between word-of-mouth (WOM) and the intention to buy affordable, environmentally friendly vehicles is partially mediated by the green brand image. Similarly, (Liao et al., 2020) reported that the link between green WOM and green purchase intentions is partially mediated by the psychological benefits of adopting eco-friendly practices and green marketing. These findings suggest that the green brand image plays a crucial role in linking WOM and green purchase intentions. Furthermore, psychological benefits and green marketing also contribute to shaping consumers' green purchase behavior. According to these findings, businesses may influence customers' intentions to buy green products by enhancing their brand image through successful green marketing techniques and good word-of-mouth (WOM).

Considering the context of green marketing, brand equity may also be influenced by the perceived social and environmental advantages of purchasing the product. For example, when a company supports local communities or reduces trash, consumers will likely acquire favorable sentiments toward it. Therefore, brands that can provide these advantages are more likely to draw customers to search for goods with favorable social and environmental effects. The findings of the study by (Alwan & Alshurideh, 2022) imply that a favorable brand perception of green products might increase the impact of digital marketing on consumers' intentions to make green purchases. Customers who believe a brand has substantial brand equity are more inclined to accept the company's environmental promises and think the product will have the desired environmental effects. Additionally, clients with a favorable opinion of the brand are more inclined to spread the word about it favorably, which can further boost the brand's image and raise buy intent among prospective customers.

2.3 Green Purchase Intentions

Consumers' readiness to buy eco-friendly goods or goods from businesses that promote sustainability is called their "green purchase intentions." Some elements, such as green WOM and brand image, have influenced consumers' intentions to make green purchases. For instance, (Mansoor and Noor, 2019) discovered that favorable Word-of-mouth mediates the association between purchase intentions and green brand image. In

addition, (Guerreiro & Pacheco, 2021) found that green trust and brand engagement partially mediated the link between green WOM and green purchase intentions. These findings suggest that businesses can shape consumers' green purchasing intentions by cultivating positive Word-of-Mouth and building a robust green brand image that fosters trust and engagement.

Green purchase intention is an essential aspect of sustainable consumption behavior. Consumers' intention to purchase environmentally friendly products is influenced by various factors, including personal attitudes, values, social norms, and perceived benefits and costs (Wijekoon & Sabri, 2021) In recent years, the role of green WOM in shaping consumers' purchase intention for eco-friendly products has been widely studied. (Pant et al., 2021) investigated the impact of e-WOM on green purchase intention and how consumers' level of green knowledge influences it. The results showed that e-WOM positively impacts green purchase intention, which is more significant for consumers with a higher level of green knowledge. This implies that green WOM can effectively increase green purchase intention, particularly for consumers with a deeper understanding of environmental issues. The authors suggest that companies can leverage this finding by encouraging satisfied customers to share their positive experiences with their network and by providing information about the environmental benefits of their products to consumers.

Positive customer feedback on environmentally friendly items, or "green WOM," dramatically influences people's intentions to buy green products. According to (Juliana et al., 2020) green viral communication positively influences purchasing intention through green satisfaction. This study discovered that green viral communication substantially impacts consumers' happiness and inclination to buy green products. This implies that green WOM might significantly influence consumer opinions of green companies and their propensity to purchase environmentally friendly goods. However, customers' buying intentions can also be impacted by greenwashing, which is the practice of making false marketing claims to sell goods or services as being ecologically beneficial. In (Chivhungwa & Chinomona, 2019) who conducted research on the influence of green purchase intention on the quality of the physical environment, green trust, and green image. Their findings indicated that green image and trust had a significant impact on green purchase intention, while the quality of the physical environment did not have a significant effect. This study suggests that companies should focus on improving their green image and fostering green trust among consumers to increase green purchase intention. This demonstrates that consumers' perceptions of a brand's dedication to the environment and their faith in it may impact their willingness to purchase eco-friendly goods. In (Figure 1) conceptual framework for the current study is illustrated:
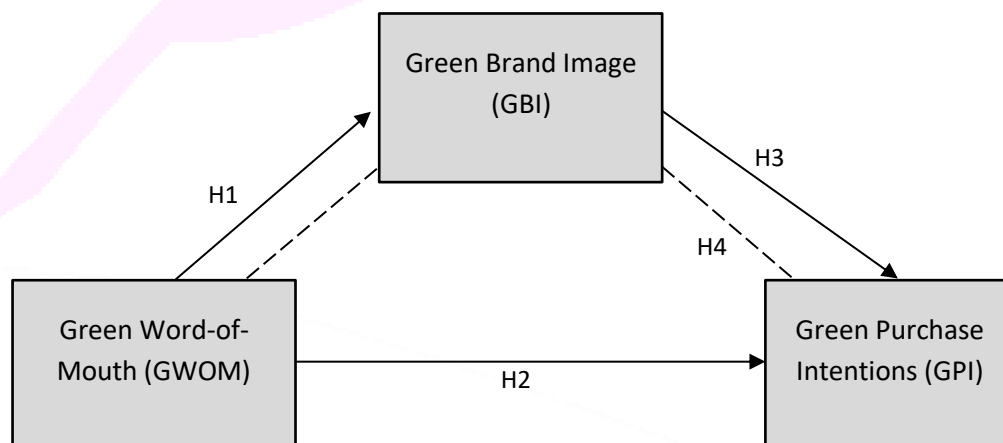
----- Dash represents mediation effect

Figure 1 Conceptual Framework

2.4 The Effect of Green WOM on Green Brand Image

A great way to have a strong green brand image is by implementing sustainable practices in the company's operations. This could include using environmentally friendly materials, reducing carbon footprint, and implementing sustainable supply chain practices. Such initiatives demonstrate the company's commitment to sustainability and can enhance the brand's reputation among environmentally conscious consumers. Moreover, companies can leverage e-WOM to strengthen their green brand image and reputation. E-WOM can spread positive word-of-mouth about the company's sustainability practices and green products, which can improve the company's reputation and increase consumer trust. E-WOM can also provide social proof of the company's commitment to sustainability, which can influence consumer perceptions of the brand and increase green purchase intention.

Developing an optimistic green brand image, which may boost customer loyalty and confidence in the business, is a crucial component of green marketing. In addition, a strong green brand reputation can also improve the impact of marketing initiatives on customer intent to buy green goods. In this regard(Alwan & Alshurideh, 2022) looked at the connection between brand equity, digital marketing, and consumer intention to buy environmentally friendly goods. (Alwan & Alshurideh, 2022) performed a survey in Saudi Arabia with 348 participants using a structured questionnaire. The poll asked about brand equity, internet marketing, and plans to buy eco-friendly goods. The data were analyzed using structural equation modeling (SEM) and the presented hypo. In line with earlier studies on the beneficial effects of digital marketing on consumer behavior (Ai Chin Nur Ain Nasyazwanie Salimi Zuraidah Sulaiman et al., 2018; Pant et al., 2021) the study's findings indicated that digital marketing positively affects purchase intention for environmentally friendly products. However, the study also discovered that brand equity mediates the relationship between digital marketing and purchase intention.

These findings emphasize the importance of establishing a positive green brand image and implementing green marketing strategies to enhance the effect of green WOM on consumers' attitudes and behaviors. Companies can leverage green WOM to increase awareness and interest in eco-friendly products. By highlighting the environmental sustainability of their products and promoting their green values through advertising, companies can amplify the impact of green WOM on consumers' attitudes and purchase intentions. Additionally, businesses can focus on offering psychological benefits to consumers, such as a sense of social responsibility or personal satisfaction, to strengthen the influence of green WOM on their purchasing decisions. This can be achieved by emphasizing the social and environmental benefits of purchasing green products and fostering a sense of personal fulfillment for consumers who make eco-friendly choices.

Empirical studies support the proposed positive relationship between green WOM and green brand image. (Liao et al., 2020) demonstrated that green WOM significantly influences customers' eco-friendly attitudes and strengthens their perception of a brand's environmental credibility, particularly when reinforced by psychological benefits and green marketing efforts. Likewise, (Kala & Chaubey, 2018) found that electronic word-of-mouth (eWOM) regarding green products enhances consumers' perception of brand quality and environmental responsibility. These findings suggest that GWOM is a key driver of brand image formation in environmentally conscious markets. This leads to the first hypothesis of this study, which is as follows:

H1: Green Word-of-Mouth has a positive influence on Green Brand Image.

2.5 The Effect of Green WOM on Green Purchase Intentions

It has been demonstrated that green WOM significantly impacts consumers' propensity to make green purchases. According to (Guerreiro & Pacheco, 2021), the positive effects of Green WOM on customers' purchasing decisions are partially mediated by consumer trust in and loyalty to green brands. This study suggests that positive communication among consumers about a company's environmentally friendly products or practices can increase consumers' confidence in the company and their engagement with the brand, leading to increased purchase intentions. Similarly, (Majeed et al., 2022) discovered that in emerging markets, green WOM significantly increases green brand equity and green purchase intention. This study emphasizes how effective consumer communication influences consumers' views toward environmentally friendly goods and business activities.

In addition, green WOM and green purchase intentions are essential in shaping consumers' attitudes towards green products and environmentally friendly company practices. Green purchase intentions refer to consumers' preparedness to purchase environmentally sociable products or products from a company with green practices. Age, education, and income are only a few examples of background variables that significantly influence customers' purchase intentions in China's organic food industry, according to (S. Li & Jaharuddin, 2021). The study also discovered that word-of-mouth (WOM) positively influenced purchase intention, indicating that encouraging consumer conversation about environmentally friendly items might raise customers' buying propensity. Similar findings were made by (Munamba & Nuangjamnong, 2021), who discovered that the green marketing mix and consumers' attitudes about green purchases strongly influence Generation Y consumers' purchase intentions in Bangkok. The company's green brand image may be improved by using friendly products or practices, raising customers' buying intentions. A company's positive attitudes towards green products and environmentally friendly practices can increase consumers' willingness to purchase them.

According to the studies conducted by (Pant et al., 2021) and (Nur, Akmaliah, Chairul, and Safira, 2021), e-WOM and green knowledge significantly impact green purchase intention. (Pant et al., 2021) revealed that e-WOM positively affects green purchase intention, and a higher level of green knowledge strengthens this effect. Meanwhile, Nur et al. (2021) found that the success of green marketing promotion positively affects green purchase intention. These results suggest that green WOM can positively influence green purchase intention, especially when consumers are knowledgeable about environmental issues or perceive successful green marketing promotion. Therefore, considering that the following hypothesis can be addressed to test.

H2: Green Word-of-Mouth has a positive influence on Green Purchase Intentions.

2.6 The Effect of Green Brand Image on Green Purchase Intentions

In their 2021 study, Nahar and Silintowe examined the mediating role of corporate image in the relationship between green marketing and purchase intention. Their findings indicated that corporate image significantly mediated the positive impact of green marketing on purchase intention, highlighting the importance of creating a favorable image for successful green marketing. Additionally, the authors emphasized the influence of a green brand's reputation on consumers' willingness to purchase environmentally friendly products.

Social media has become a crucial tool for marketing. allowing brands to engage with large audiences and promote environmentally conscious products. Research by (Sanny et al., 2020) conducted a study to investigate the relationship between social media marketing, customer trust, brand image, and purchase intention. Their findings indicated

that social media marketing positively affected both brand image and customer trust, subsequently increasing customers' intention to make purchases. This suggests that social media marketing can effectively improve consumers' trust in environmentally friendly businesses and communicate the benefits of eco-friendly products or services.

It has also been investigated how social media may affect consumers' inclinations to make green purchases. According to (Sanny et al., 2020) social media marketing improved brand perception and trust, influencing consumers' buying intent. This implies that social media might boost consumers' confidence in green companies by successfully communicating the environmental benefits of goods and services. Altruism, brand evangelism, and devotion to green products have significantly impacted consumers' intentions to purchase green (Kumar Panda et al., n.d.). This implies that promoting green goods through interpersonal communication may influence consumer behavior. Additionally, social and environmental sustainability models can be used to understand better how brand loyalty, advocacy, altruism, and purchasing intention relate to green products.

H3: Green Brand Image has a positive influence on Green Purchase Intentions.

2.7 The Mediating Effect of Green Brand Image

Research by (Solihin, 2022) found that brand image mediates the influence of social media and e-WOM on green purchase intention. The study revealed that the positive impact of e-WOM and social media on purchase intention was primarily explained by the effect of these factors on brand image, indicating that brand image played a crucial mediating role. To increase customers' desire to make green purchases, the authors advise businesses to enhance their brand image using social media and electronic word-of-mouth marketing. This study suggests that a positive brand image influences consumer purchase intentions for green products. Green WOM can influence a brand's image by shaping consumers' perceptions. When consumers hear positive recommendations from their peers about a green product or brand, they are more likely to view it positively and develop a favorable image. This, in turn, can boost their purchase intention for the brand's green products.

Meanwhile, (Setiawan, 2018) research investigated the impact of word-of-mouth on consumers' decisions to buy reasonably priced green cars. According to the study, green brand image explains this positive link between WOM and purchase intention. Finally, (Román-Augusto et al., 2022) revealed that green WOM raises Green Trust, satisfaction, and perceived value, affecting green purchase intentions. This suggests that marketing environmentally friendly products appreciatively through interpersonal communication can raise consumers' satisfaction, trust, and opinion of the brand's value, influencing their tendency to buy environmentally friendly goods.

Similarly, (Nahar & Silintowe, 2021) found that green marketing function positively affects purchase intention, and corporate image fully mediates the relationship. This suggests that a positive corporate image is essential for green marketing strategies to be effective. The study's findings indicate that green marketing can be valuable in promoting environmentally friendly products.

H4: Green Brand Image mediates the relationship between Green Word-of-Mouth and Green Purchase Intentions.

3. METHODOLOGY

3.1 Research Design

This study utilizes quantitative methods to examine the research questions raised in the context of green and eco-friendly products in cosmetics industry. The survey targeted buyers of organic products from a well-known cosmetic brand in Turkish market. "Dirk Rossmann GmbH" commonly referred to "Rossmann" was selected due to its fame, commitment to sustainability, and having wide range of natural products in Turkish market.

According to (Bell et al., 2022), there are two types of data that are often used in research, the first type which is directly gathered by the researcher for the subject at hand is referred to primary data. And the second type, which data that has already been obtained by another researcher is called secondary data. The current study utilized both primary and secondary data to evaluate the proposed model and hypotheses of the study. Primary data were collected through an online survey, containing questions related to cosmetics industry specifically "Rossmann" as reference for participants. Moreover, the study incorporated previously researched measures to have a comprehensive foundation for analysis and interpretation.

3.2 Population of the Study

The word "population" defines the extensive collection of data the researcher is interested in. On the other hand, the specific group of people or things from whom the sample data is supposed to be collected is referred to as the "target population" (Peffers et al., 2018).

In the present study, the target population are consumers of cosmetic products from "Rossmann" brand in Antalya, Türkiye. These consumers are familiar with the company's organic products and brand identity, making them well-suited by providing insights about green concepts.

3.3 Sampling Size & Technique

The suitable number of respondents selected for the study is referred to as sample size and it is taken from the whole targeting population (Parker et al., 2019). As a rule of thumb, researchers suggested relatively large sample sizes (N>200) for SEM (Hair et al., 2012). Also (Comrey & Lee, 2013) suggested that a sample size of 50 is very poor, 100 is poor, 200 is fair, 300 is good, 500 is very good, and 1,000 is excellent.

The current study used an online tool to facilitate sample size calculation. The target population consisted of residents of Antalya, which, according to the "Macrotrends" [2]website, has an estimated population of 1,347,000. Based on a 6% margin of error, the "Survey System"[3] website determined that a sample size of 269 valid responses was required for this study. Though, following the data collection process, a total of 274 responses were successfully gathered.

According to (Saunders, 2012), sampling techniques can be distributed into two main types which are probability and non-probability. In probability sampling, the chances of a particular unit in the sample being selected for the study can be determined or known while the chance of a unit being selected in a non-probability sampling is

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[2] www.macrotrends.net
[3] www.surveysystem.com

undefined. Non-probability sampling techniques can also be divided into three types which are convenience sampling, purposive sampling and quota sampling. Convenient sampling techniques are usually used based on the number of respondents who are ready and available to the researcher (Bell et al., 2022).

The current study employed a non-probability convenience sampling method, The questionnaires were designed in "google survey" and shared in social media groups such as LinkedIn, WhatsApp, telegram, Facebook groups, and emails for a period of 15 days in May 2023. As the participants were selected based on their availability and willingness to respond during the data collection period. This method was chosen due to practical constraints and the exploratory nature of the research. The sample was composed of individuals residing in Antalya, Türkiye, who are familiar with and have experience purchasing green cosmetic products. The sectoral distribution was deliberately focused on the cosmetics industry, a segment that has seen increased interest in sustainability and eco-friendly practices. Although this sampling method limits the generalizability of findings, it is suitable for identifying trends and relationships within a specific consumer segment. The population was not intended to represent all Turkish consumers, but rather to offer targeted insights into green purchasing behavior within an urban, environmentally aware market context.

3.4 Research Measurement

A structured questionnaire was adapted from previous research papers and prepared in English and Turkish versions to suit the targeted location Antalya, Türkiye. To avoid non-responses, the questionnaire was designed to accept answers only if all questions were completed, similarly the survey tool restricted respondents to submit only one response, this way repetitive answers were prevented. The questionnaires consist of two sections, the first section asked about demographic details of responder, and the second section was about three variables used in the study which are green word-of-mouth, brand image and purchase intentions. In determining GWOM, four items have been taken from two studies; (Zhang et al., 2018) and (Ahmad & Zhang, 2020) two items from each have been borrowed and modified for the current study. For GBI, five items from (Y.-S. Chen, 2010) have been taken and updated, lastly for GPI measurement, three items from (Zhang et al., 2018) borrowed and updated. In total (12) items have been used in current research from previous studies. The scale used in this study is a 5-point Likert scale (1= strongly disagree, 2= disagree, 3= neutral 4= agree, 5= strongly agree) (Joshi et al., 2015).

To ensure linguistic and conceptual consistency, the measurement scales were first translated from English to Turkish by a bilingual expert familiar with marketing research. A second expert then performed a back-translation from Turkish to English. The two English versions were compared and discussed to resolve discrepancies and ensure semantic equivalence. Additionally, a pilot test was conducted with 15 respondents from the target population to confirm item clarity and cultural relevance. Based on their feedback, minor wording adjustments were made to improve comprehension. The reliability of the final items was assessed using Cronbach's alpha, with all constructs exceeding the 0.70 threshold, indicating strong internal consistency (see Table 4). Confirmatory Factor Analysis (CFA) was employed to evaluate the construct validity, with acceptable factor loadings (≥ 0.70 for most items), AVE scores above 0.50, and satisfactory model fit indices (see Section 4.2 and Table 2). These results confirm that the adapted scales maintained their psychometric integrity in the Turkish context.

3.5 Data Processing and Analysis

Data analysis involves various processes such as editing, cleaning, transforming, and modeling data with the aim of extracting valuable information, making suggestions, drawing conclusions, and supporting decision-making (Ader, 2008).

Descriptive methods used to analyze demographic data, which will be presented through charts and tables. Furthermore, an initial analysis of variables, and the relationships between these variables examined using Covariant Based Structural Equation Modeling (CB-SEM) with the assistance of IBM SPSS 27 and AMOS 24. SEM modeling allows for a more appropriate analysis of cause-and-effect relationships among the various constructs within a relatively complex model (Hair et al., 2012; Henseler et al., 2009).

3.6 Research Ethics

The research corresponded with the ethical guidelines proposed by (Creswell & Creswell, 2017), that included receiving informed consent from participants, guaranteeing their voluntary involvement, upholding confidentiality, and protecting their identity.

All participants' privacy has been maintained, and their consent was obtained in the current study. Participants' information is only utilized for the present study thesis project. Additionally, all sources of borrowed content have received the required acknowledgment in compliance with the regulations in existence.

4. FINDINGS

4.1 Demographic analysis

Analysis of the demographic data examined the respondents' five demographic traits: gender, age group, educational level, occupation, and monthly income. (Table 1)

The demographic analysis indicates a balanced representation of genders, with a slightly higher proportion of female respondents (58%). The age group 26 to 35 years establishes the largest category (48%), suggesting that younger adults are more engaged with eco-friendly cosmetic products. Most participants hold a bachelor's degree (55%) and are employed (48%), highlighting a relatively educated and awareness of their acquisitions.

Table 1: Demographic Breakdown

Demographics		Frequency	Relative Frequency%
Gender (N=274)	Male	115	42%
	Female	159	58%
Age (N=274)	18 to 25	69	25%
	26 to 35	131	48%
	36 to 45	50	18%
	above 45	24	9%
Education (N=274)	High school diploma	62	23%
	Bachelor's degree	152	55%

	Master's degree	48	18%
	Doctorate degree	12	4%
Occupation (N=274)	Student	95	35%
	Employee	131	48%
	Self-employed	32	12%
	Unemployed	16	6%
Income (N=274)	0 to 5,000 TRY	78	28%
	5,001 to 10,000 TRY	90	33%
	10,001 to 20,000 TRY	51	19%
	20,001 to 30,000 TRY	30	11%
	Above 30,000 TRY	25	9%

4.2 Confirmatory Factor Analysis

According to (Herrington et al., 2008), confirmatory factor analysis (CFA) is a statistical method that is used to validate the factor structure of a given set of observed variables, or it is used to assess the reliability and validity of constructs. Additionally, a multivariate approach called structural equation modeling estimate and verify connections between different sets of variables (Hair et al., 2012). In the current study covariance-based SEM was performed using AMOS software. Confirmatory factor analysis (CFA), a component of CB-SEM, is a statistical technique used to validate the factor structure of a collection of observed variables and to establish the construct's reliability and validity (i.e., convergent and discriminant validity).

Table 2: Goodness Fit of the Model

| Model	X2	Df	X2/df	GFI	AGFI	RMR	NFI	CFI	TLI	RMSEA
Three Factor Model	63.61	24	2.65	0.95	0.9	0.023	0.8	0.86	0.79	0.078

The reported fit indices indicate an acceptable model fit for the three-factor model. Specifically, the Chi-square/df ratio of 2.65 is below the commonly accepted threshold of 3.00, suggesting reasonable model parsimony. The Goodness-of-Fit Index (GFI = 0.95) and Adjusted GFI (AGFI = 0.90) both exceed the acceptable cutoff of 0.90, indicating a good fit between the hypothesized model and observed data. The Root Mean Square Error of Approximation (RMSEA = 0.078) falls within the acceptable range of 0.05–0.08, denoting a reasonable approximation error. Although some indices such as CFI (0.86) and TLI (0.79) are slightly below the ideal threshold of 0.90, they are within acceptable limits for exploratory models with complex constructs (Hair et al., 2012). As a result, these indicators confirm that the proposed measurement model fits the data adequately and supports further structural analysis.

Table 3: Factor Loading, t-value, mean score, and standard deviation.

Variables	Factor Loadings	t-Value	Mean	SD
Green Word-of-Mouth				
GWOM1	(*)	(*)	(*)	(*)
GWOM2	0.63	16.6	3.82	0.76
GWOM3	0.77	19.3	3.56	0.84
GWOM4	0.76	18.3	3.47	0.86
Green Brand Image				
GBI1	(*)	(*)	(*)	(*)
GBI2	(*)	(*)	(*)	(*)
GBI3	0.8	19.5	3.32	0.87
GBI4	0.86	20.9	3.22	0.9
GBI5	0.83	19.7	3.18	0.91
Green Purchase Intentions				
GPI1	0.7	17.9	3.82	0.81
GPI2	0.81	21.2	3.7	0.85
GPI3	0.86	19.5	3.55	0.94

Notes: (*) = deleted due to cross loading

As per (Table 2), the Three-Factor Model demonstrates an acceptable model fit based on goodness-of-fit indices, with a Chi-Square/df value of 2.65, GFI of 0.95, AGFI of 0.90, and RMSEA of 0.078, indicating reasonable model adequacy. Other indices such as (NFI = 0.80, CFI = 0.86, and TLI = 0.79) indicate room for improvement. (Table 3) shows, Factor loadings for most items are strong, with values exceeding the acceptable threshold of 0.50 (Bagozzi & Heatherton, 1994; Bagozzi & Yi, 1988), such as GWOM (Item 3 = 0.77, Item 4 = 0.76), GBI (Items 3–5 = 0.80–0.86), and GPI (Items 1–3 = 0.70–0.86). Moreover, all associated t-values are significant (>15.00), reinforcing the validity of the constructs. Overall, the model demonstrates satisfactory reliability and construct validity with minor improvements needed for mentioned fit indices. Initially, the measurement model included 4 items for Green Word-of-Mouth (GWOM) and 5 items for Green Brand Image (GBI). However, one item from the GWOM construct (GWOM1) and two items from the GBI construct (GBI1 and GBI2) were removed.
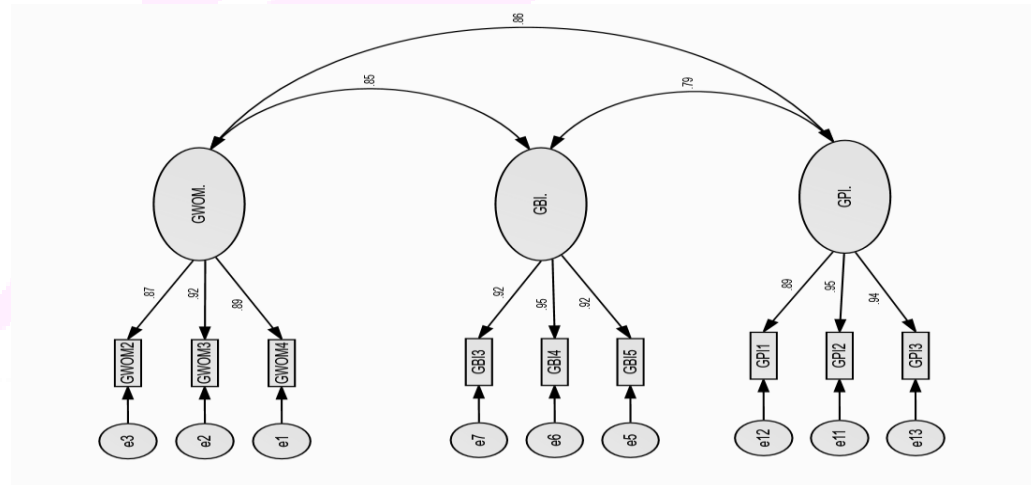
These items exhibited high cross-loadings below the recommended threshold of 0.50, which can compromise construct validity and model clarity. The decision to remove these items was based on both statistical guidelines and model fit improvement. After the deletion of these items, the revised model showed acceptable goodness-of-fit indices

supporting the validity of the final structure. The remaining items sufficiently captured the latent constructs while improving the measurement model's parsimony and reliability. These results validate the hypothesized relationships between green WOM, green brand image, and purchase intentions.

Figure 2: Structural Equation Model (SEM)

The structural equation model illustrates in (Figure 2) that GWOM has strong direct effects on both GBI (0.85) and GPI (0.86), while GBI significantly influences GPI (0.79), indicating partial mediation. The measurement model shows high factor loadings for the observed variables, with GWOM indicators ranging from 0.86 to 0.89, GBI indicators from 0.82 to 0.92, and GPI indicators from 0.56 to 0.94, confirming the reliability of the constructs. Overall, the model demonstrates that GWOM positively impacts GPI both directly and indirectly through GBI, with strong measurement properties supporting the validity of the relationships.

4.3 Reliability Analysis

For reliability test, the study used Cronbach's alpha for the confirmation of variables. The benchmark for confirmation of reliability is α >0.70 (Cronbach, 1951).

Table 4: Reliability analysis

Constructs	α	AVE	CR
GWOM	0.9	0.55	0.79
GBI	0.95	0.69	0.87
GPI	0.93	0.64	0.84

According to (Table 4)**Table 4:** Reliability analysis, Cronbach's alpha (α) values indicate strong internal consistency, with GWOM at 0.9, GBI at 0.95, and GPI at 0.93. The Average Variance Extracted (AVE) values show acceptable convergent validity, with GWOM at 0.55, GBI at 0.69, and GPI at 0.64, as all exceeded the 0.50 cut-off value. The Composite Reliability (CR) values confirm construct reliability, with GWOM at 0.79, GBI at 0.87, and GPI at 0.84, all surpassing the 0.70 benchmark. These metrics collectively indicate the constructs are reliable and valid for analysis. (Fornell & Larcker, 1981)

4.4 Correlation Analysis

In below, (Table 5) present descriptive statistics and synchronized correlations coefficients of the constructs under test. As per the data, GWOM is correlated positively and significantly with GBI ($r = 0.81$, $\rho < 0.01$), GPI ($r = 0.81$, $\rho < 0.01$) and finally, GBI is correlated positively and significantly with GPI ($r = 0.76$, $\rho < 0.01$). This indicates a strong positive relationship between GWOM, GBI and GPI. Mean scores for GWOM and GPI are both 3.68, with standard deviations of 0.71 and 0.81 respectively, while GBI has a mean of 3.35 and a standard deviation of 0.77. The asterisk (*) symbolizes statistical significance, confirming the relationships among these variables.

Table 5: Correlations, mean and Standard deviation

Variables	Mean	SD	GWOM	GBI	GPI
GWOM	3.68	0.71	-		

GBI	3.35	0.77	0.81*	-
GPI	3.68	0.81	0.81*	0.76*	-

*SD = standard deviation; *significance at 0.01*

4.5 Regression Analysis

Regression Analysis is employed to examine the degree of correlation between the predicted hypothesis concerning the dependent variables and independent variables. To delve deeper into the data analysis, linear regression has been utilized. According to (Z. Chen & Klahr, 1999), there are two kinds of variables; one is the dependent variable, and the other is the independent variable. The dependent variable is the main factor that one is trying to predict or understand whereas the independent variable is the factor that one hypothesizes and that has an impact on the dependent variable.

Table 6: Results of Hypothesis 1

Coefficients a							
Model	Unstandardized B	Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.	95.0% Confidence Interval for B	
						Lower Bound	Upper Bound
(Constant)	0.159	0.142		1.115	0.266	-0.11	0.428
GWOM_MEAN	0.869	0.038	0.811	22.882	0.000	0.797	0.94

a. Dependent Variable: GBI_MEAN

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig.
1	.811a	0.658	0.657	0.45153	0.658	523.588	1	272	0.000

a. Predictors: (Constant), GWOM_MEAN

As per (Table 6), GWOM_MEAN significantly predicts GBI_MEAN, explaining 65.8% of its variance ($R^2 = 0.658$, adjusted $R^2 = 0.657$). The unstandardized coefficient (B = 0.869) and standardized beta (0.811) indicate a strong positive relationship, which is statistically significant (t = 22.882, $p < 0.001$). The model is significant (F = 523.588, $p < 0.001$) with a standard error of 0.45153, and the 95% confidence interval for B (0.797 to 0.940) suggests that the effect is consistently positive and strong. Hypothesis 1 was supported.

Table 7: Results of Hypothesis 2

Coefficients a							
Model	Unstandardized B	Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.	95.0% Confidence Interval for B	
						Lower Bound	Upper Bound
(Constant)	0.309	0.151		2.051	0.041	0.024	0.594
GWOM_MEAN	0.918	0.04	0.811	22.839	0.000	0.842	0.994

a. Dependent Variable: GPI_MEAN

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig.
1	.811ᵃ	0.657	0.656	0.47796	0.657	521.627	1	272	0

a. Predictors: (Constant), GWOM_MEAN

Table 7, shows that GWOM_MEAN is a significant predictor of GPI_MEAN, explaining 65.7% of its variance (R^2 = 0.657, adjusted R^2 = 0.656). The unstandardized coefficient (B = 0.918) and standardized beta (0.811) highlight a strong positive relationship, which is statistically significant (t = 22.839, $p < 0.001$). The model's constant (B = 0.309, p = 0.041) is also significant, indicating a positive baseline effect. Overall, the model is significant (F = 521.627, $p < 0.001$) with a standard error of 0.47796, and the confidence interval for the unstandardized coefficient (0.842 to 0.994) reinforces the strength of the findings. Hypothesis 2 was supported.

Table 8: results of hypothesis 3

Coefficients a							
Model	Unstandardized B	Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.	95.0% Confidence Interval for B	
						Lower Bound	Upper Bound
(Constant)	0.984	0.143		6.882	0.000	0.703	1.266
GBI_MEAN	0.806	0.042	0.762	19.403	0.000	0.724	0.887

a. Dependent Variable: GPI_MEAN

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square	F Change	df1	df2	Sig. F Change

					Chang e				
1	.762ᵃ	0.581	0.579	0.52874	0.581	376.488	1	272	0.000

a. Predictors: (Constant), GBI_MEAN

Table 8, indicates that GBI_MEAN significantly predicts GPI_MEAN, accounting for 58.1% of the variance ($R^2 = 0.581$, adjusted $R^2 = 0.579$). The unstandardized coefficient (B = 0.806) and standardized beta (0.762) demonstrate a strong positive relationship, both of which are highly significant (t = 19.403, $p < 0.001$). The constant term (B = 0.984, $p < 0.001$) is also significant, highlighting a substantial baseline effect. The model is strong, with a standard error of 0.52874 and a highly significant overall fit (F = 376.488, $p < 0.001$). The 95% confidence interval for the unstandardized coefficient (0.724 to 0.887) further supports the reliability of findings. Hypothesis 3 was supported.

4.6 Mediation Analysis

The regression mediation analysis for the variables is tested and presented in (Table 9) below. In hypothesis 4, it is proposed that GBI will mediate the relationship between GWOM and GPI. Analysis using PROCESS Macro on SPSS describes that GBI partially mediates relationship between GWOM and GPI ($\beta = 0.28$, $\rho < 0.05$), this means that a 1 unit increase of GWOM occurs on GBI will lead to a 0.28 increase in consumer GPI. Hypothesis 4 was supported.

Table 9: Hypothesis 4 result (Mediation effect)

Model Summary						
R	R-sq	MSE	F	df1	df2	p
0.83	0.689	0.208	300.277	2	271	0.000
Model						
	Coeff	se	t	p	LLCI	ULCI
Constant	0.258	0.144	1.789	0.075	-0.026	0.542
GWOM_Mean	0.638	0.066	9.724	0	0.509	0.767
GBI_Mean	0.322	0.061	5.264	0	0.202	0.443

OUTCOME VARIABLE: GPI_Mean

Direct effect of X on Y						
Effect	se	t	p	LLCI	ULCI	c'_cs
0.638	0.066	9.724	0.000	0.509	0.767	0.563

Indirect effect(s) of X on Y:			
	Effect	BootSE	BootLLCI	BootULCI
GBI_Mean	0.28	0.065	0.16	0.414

5. DISCUSSION AND INTERPRETATION OF THE RESULTS

5.1 Summary of the Findings

The study showed that most of the respondents were female by a percentage of 58%. The study also showed that most of the respondents had bachelor's degree, and majority of them were employees and students and their age were between 26 to 35 years old living and consuming cosmetic products that are more organic and natural in Antalya, Türkiye.

The first hypothesis initially claimed that green word-of-mouth has significant positive impacts on the brand image of companies. The relationship between GWOM and GBI of companies in the cosmetic sector was tested and a positive impact was established. The result shows that an increase in GWOM will cause an increase in the brand image of companies. And negative practices can damage this relationship, such as green washing as depicted by (Pacheco, 2019), the impact of consumers' perception of greenwashing on their intentions to purchase green products was investigated.

The second hypothesis suggested that green word-of-mouth has significant positive impacts on purchase intention of customers. The relationship between GWOM and GPI of companies in the cosmetic sector was tested and a positive impact was established. The result shows that an increase in GWOM will cause an increase in customers' buying intentions. According to (Juliana et al., 2020) positive customer feedback on environmentally friendly items, or "green WOM," dramatically influences people's intentions to buy green more products.

The third hypothesis initially argued that green brand image has significant positive impacts on purchase intention of customers. The relationship between GBI and GPI was tested in current study in cosmetic context and a positive impact was discovered. The result shows that an increase in GBI will cause an increase in the buying intention of customers. The more valuable an image a company has, the number of customers will increase. The value a brand gives to a product above and beyond its practical features is known as brand equity, which is a crucial marketing term (Keller, 1993). Brand equity is the intangible value a brand brings to a product by favorably influencing people's perceptions of it.

The fourth hypothesis argued that green brand image mediates the relationship between green word-of-mouth and green purchase intentions. The result shows that hypothesis 4 is statistically significant and green brand image does mediate this relationship. However, direct impacts of GWOM are much stronger than indirect effect through GBI as already shown in regression and mediation analysis of this study. The mediation role of GBI has also been depicted by many scholars previously as an example; in a study conducted by (Setiawan, 2018), the author found that the relationship between word-of-mouth (WOM) and the intention to buy affordable, environmentally friendly vehicles is partially mediated by the green brand image. In conclusion, GWOM helps companies to focus on their green practices, as it has a direct and significant impact on their company`s image and customer purchase intentions, see summary of hypothesis in (Table 10).

The findings confirm the significant impact of green word-of-mouth (GWOM) on both green brand image (GBI) and green purchase intentions (GPI), with partial mediation observed through brand image. Interestingly, the direct influence of GWOM on purchase intention was stronger than the indirect path via brand image, highlighting the growing importance of peer influence. These results provide a foundation for further interpretation in relation to prior studies and theory. While the overall model fit was found to be acceptable, it is important to note that two fit indices—TLI (0.79) and NFI (0.80)—were marginally below the commonly accepted threshold of 0.90. This suggests that the model has room for improvement and should be considered an improvable aspect. Although these values are still within an acceptable range for exploratory SEM

research (Hair et al., 2012), future studies may refine the model by re-examining construct indicators or exploring alternative model specifications to enhance fit.

Table 10: Summary of Hypotheses

Hypotheses	Result
H1: Green Word-of-mouth → Green Brand Image	Supported
H2: Green Word-of-mouth → Green Purchase Intentions	Supported
H3: Green Brand Image → Green Purchase Intentions	Supported
H4: Green Word-of-mouth → Green Brand Image → Green Purchase Intentions	Supported

5.2 Theoretical Implications and Contribution to the Literature

This study contributes to the growing body of literature on green marketing by integrating green word-of-mouth (GWOM), green brand image (GBI), and green purchase intentions (GPI) into a single mediated model—specifically in the context of eco-friendly cosmetics in Türkiye. While previous research (Setiawan, 2018; Kala & Chaubey, 2018) has examined parts of this relationship, few studies have addressed the combined effect of GWOM on both GBI and GPI in a developing market setting.

From a theoretical perspective, the strong direct effect of green word-of-mouth (GWOM) on green purchase intentions (GPI) provides empirical support for the Theory of Planned Behavior (TPB). According to TPB (*Ajzen*, 1991), subjective norms—such as peer influence—significantly shape behavioral intentions. The findings confirm that positive environmental messages shared through WOM act as powerful social norms, reinforcing green purchasing intentions. Moreover, the partial mediating role of green brand image (GBI) suggests that attitudes (another TPB component) are shaped through perceived brand credibility and environmental responsibility. Similarly, the findings are consistent with Attribution Theory (Heider, 1958), which suggests that consumers assess the underlying motives of a brand's green actions. When peer WOM confirms that a brand's environmental initiatives are authentic (i.e., internally driven), the brand gains a stronger image and influences purchase intent. This supports the view that perceived authenticity—validated through social proof—can influence consumer attribution and trust formation.

A key contribution is the empirical validation that GWOM has both direct and indirect effects on GPI, with partial mediation by GBI. This supports and extends past work such as (Liao et al., 2020), which emphasized the psychological benefits of green messaging, and (Panda et al., 2020), who found that eWOM significantly shapes purchase behavior in green consumption. However, the current study finds an even stronger direct effect of GWOM on purchase intentions (β = 0.86), suggesting that peer influence may be even more dominant in urban Turkish markets where consumers rely on personal networks to verify brand authenticity. No highly unexpected findings were observed, but the relatively weaker mediation role of brand image indicates that interpersonal communication (GWOM) may outweigh corporate image in driving eco-conscious purchasing. This insight is particularly relevant for marketers aiming to cultivate brand trust through community and influencer engagement.

Lastly, Green Brand Image (GBI) functions as more than just a mediator; it acts as a central pillar of eco-brand positioning. A strong GBI helps companies distinguish themselves in a crowded market by signaling authenticity, ethical production, and

environmental commitment. In doing so, it reduces consumers' perceived risk when selecting green products and enhances trust, which is particularly crucial in markets vulnerable to greenwashing concerns. Moreover, GBI reinforces customer loyalty and advocacy, especially when integrated with consistent messaging across digital platforms, packaging, and product experience. These attributes make GBI not just a reactive outcome of green word-of-mouth, but a proactive tool for sustainable branding and long-term customer engagement. Therefore, companies should invest in building and maintaining GBI through transparent communication, third-party certifications, and visible sustainability practices to influence both direct purchase intentions and long-term brand equity.

5.3 Recommendations

This study highlights the importance of leveraging green word-of-mouth (GWOM) as a marketing tool that not only increases direct purchase intentions but also enhances brand image over time. Managers should actively promote platforms for peer-sharing and customer advocacy, such as referral programs, customer reviews, and eco-focused social media campaigns. These efforts help build organic social norms that influence consumer behavior far more persuasively than traditional advertisements. As the data showed that GWOM significantly improves brand image and purchase intentions, it is recommended that businesses should strongly encourage customer feedback and widely discuss their environmentally friendly programs and products. This can be accomplished through a variety of strategies, including social media advertisements, collaborations with eco-conscious influencers, and participation in eco-friendly events. By fostering a community around sustainability, companies can build trust, increase engagement, and strengthen long-term customer loyalty.

Moreover, the findings caution managers against greenwashing—any inconsistencies between brand claims and customer experiences may weaken the brand image and disrupt the positive WOM cycle. Managers must focus on building genuine, transparent sustainability practices, then amplify those efforts through community engagement and influencer marketing to reinforce authenticity.

And finally, educating customers about environmental benefits will be beneficial for both sides, businesses can guide customers about health benefits of using natural and organic products, in the present study case for example, cosmetics products for ecological reasons. Companies may affect customer perceptions and boost purchase intentions by emphasizing the advantages of these items, such as reduction degree of chemical level, decomposition and most importantly ethical production. They can do this through social media, blog posts, product packaging, and other methods available.

5.4 Limitations and future studies

Beside the recommendations being made, there are some limitations for the current study. The first limitation is related to the representativeness of the sample. The data were collected solely from consumers residing in Antalya, Türkiye, using a non-probability convenience sampling technique. While Antalya represents an urban region with an environmentally aware population, the findings cannot be generalized to the broader Turkish population or to consumers in other regions or countries. Therefore, the external validity of the study is limited. Future research should consider collecting data from multiple geographic regions or employing stratified or probability sampling methods to improve the representativeness and generalizability of the findings. Similarly, this study focused on a specific industry which is cosmetics. There are many areas that can be researched in green context such as home appliances, vehicles, organic food, organic cleaning products, reusable packaging, green fashion products or clothing, solar systems etc.

Another limitation that can be noticed is the variables used for this study, as illustrated before. This study examined the relationship of GWOM, GBI and GPI, other variables such as brand awareness, brand association, brand trust, brand washing, brand performance etc., which has not been depicted in this study. Future studies can look at various brand related variables that lead to an increase and/or decrease of customer behavior for their green practices.

REFERENCES

Ader, H. J. (2008). Phases and initial steps in data analysis. *Chapter*, *14*, 333–356.

Ahmad, W., & Zhang, Q. (2020). Green purchase intention: Effects of electronic service quality and customer green psychology. *Journal of Cleaner Production*, *267*, 122053. https://doi.org/10.1016/j.jclepro.2020.122053

Ajzen, 50 Organizational Behavior and Human Decision *Processes* 179 (1991). https://repository.tcu.edu/bitstreams/702462ab-1ebb-4c54-85df-d45d31e23b1d/download

Amberg, N., & Fogarassy, C. (2019). Green Consumer Behavior in the Cosmetics Market. *Resources*, *8*(3), 137. https://doi.org/10.3390/resources8030137

Bagozzi, R. P., & Heatherton, T. F. (1994). A general approach to representing multifaceted personality constructs: Application to state self-esteem. *Structural Equation Modeling: A Multidisciplinary Journal*, *1*(1), 35–67. https://doi.org/10.1080/10705519409539961

Bagozzi, R. P., & Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the Academy of Marketing Science*, *16*(1), 74–94. https://doi.org/10.1007/BF02723327

Bell, E., Bryman, A., & Harley, B. (2022). Business research methods. *Oxford university press*. https://books.google.com/books?hl=en&lr=&id=hptjEAAAQBAJ&oi=fnd&pg=PP1&dq=Bryman+%26+Bell+(2015)+&ots=Ddmj4cv_-v&sig=kJN4QbYNbd-RpFnBp-YPjv1f8UA

Chen, Y.-S. (2010). The Drivers of Green Brand Equity: Green Brand Image, Green Satisfaction, and Green Trust. *Journal of Business Ethics*, *93*(2), 307–319. https://doi.org/10.1007/s10551-009-0223-9

Chen, Z., & Klahr, D. (1999). All Other Things Being Equal: Acquisition and Transfer of the Control of Variables Strategy. *Child Development*, *70*(5), 1098–1120. https://doi.org/10.1111/1467-8624.00081

Comrey, A. L., & Lee, H. B. (2013). A first course in factor analysis. *Psychology press.* https://www.taylorfrancis.com/books/mono/10.4324/9781315827506/first-course-factor-analysis-andrew-comrey-howard-lee

Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications.

Cronbach, L. J. (1951). Coefficient Alpha and the Internal Structure of Tests. *Psychometrika*, *16*(3), 297–334. https://doi.org/10.1007/BF02310555

D'Souza, C., Taghian, M., Lamb, P., & Peretiatko, R. (2007). Green decisions: Demographics and consumer understanding of environmental labels. *International Journal of Consumer Studies*, *31*(4), 371–376. https://doi.org/10.1111/j.1470-6431.2006.00567.x

Fonseca-Santos, B., Corrêa, M. A., & Chorilli, M. (2015). Sustainability, natural and organic cosmetics: Consumer, products, efficacy, toxicological and regulatory considerations. *Brazilian Journal of Pharmaceutical Sciences*, *51*(1), 17–26.

Fornell, C., & Larcker, D. F. (1981). Structural Equation Models with Unobservable Variables and Measurement Error: Algebra and Statistics. *Journal of Marketing Research*, *18*(3), 382–388. https://doi.org/10.1177/002224378101800313

Hair, J. F., Sarstedt, M., Ringle, C. M., & Mena, J. A. (2012). An assessment of the use of partial least squares structural equation modeling in marketing research. *Journal of the Academy of Marketing Science*, *40*(3), 414–433. https://doi.org/10.1007/s11747-011-0261-6

Heider, F. (1958). The psychology of interpersonal relations. *Psychology Press.* https://api.taylorfrancis.com/content/books/mono/download?identifierName=doi&id entifierValue=10.4324/9780203781159&type=googlepdf

Henseler, J., Ringle, C. M., & Sinkovics, R. R. (2009). The use of partial least squares path modeling in international marketing. In *New challenges to international marketing* (pp. 277–319). Emerald Group Publishing Limited. https://www.emerald.com/insight/content/doi/10.1108/S1474-7979(2009)0000020014/full/html

Herrington, R. L., Mitchell, A. E., Castellani, A. M., Joseph, J. I., Snyder, D. K., & Gleaves, D. H. (2008). Assessing disharmony and disaffection in intimate relationships: Revision of the Marital Satisfaction Inventory factor scales. *Psychological Assessment*, *20*(4), 341.

Joshi, A., Kale, S., Chandel, S., & Pal, D. K. (2015). Likert scale: Explored and explained. *British Journal of Applied Science & Technology*, *7*(4), 396–403.

Kala, D., & Chaubey, D. S. (2018). The effect of eWOM communication on brand image and purchase intention towards lifestyle products in India. *International Journal of Services, Economics and Management*, *9*(2), 143. https://doi.org/10.1504/IJSEM.2018.096077

Keller, K. L. (1993). Conceptualizing, Measuring, and Managing Customer-Based Brand Equity. *Journal of Marketing*, *57*(1), 1–22. https://doi.org/10.1177/002224299305700101

Kotler, P. (2012). Kotler on marketing. *Simon and Schuster.* https://books.google.com/books?hl=en&lr=&id=iHWxeT7X5YYC&oi=fnd&pg=PT 7&dq=brand+equity+p+Kotler+&ots=ej7Qz-2ASQ&sig=ZO0adsAtlM7iLR0jIyPbJn1Ibe8

Liao, Y.-K., Wu, W.-Y., & Pham, T.-T. (2020). Examining the Moderating Effects of Green Marketing and Green Psychological Benefits on Customers' Green Attitude, Value

and Purchase Intention. *Sustainability*, *12*(18), 7461. https://doi.org/10.3390/su12187461

Luck, E. M., & Ginanti, A. (2009). mapping consumer's attitudes for future sustainable marketing. *In: ANZMAC, 30 November-2 December, 2009., Melbourne, Australia.* https://www.researchgate.net/profile/Edwina-Luck/publication/38183968_Green_Marketing_Communities_and_blogs_mapping_consumer's_attitudes_for_future_sustainable_marketing/links/0c9605252abb89fa80000000/Green-Marketing-Communities-and-blogs-mapping-consumers-attitudes-for-future-sustainable-marketing.pdf

Majeed, M. U., Aslam, S., Murtaza, S. A., Attila, S., & Molnár, E. (2022). Green Marketing Approaches and Their Impact on Green Purchase Intentions: Mediating Role of Green Brand Image and Consumer Beliefs towards the Environment. *Sustainability*, *14*(18), 11703. https://doi.org/10.3390/su141811703

Nahar, Z. N., & Silintowe, Y. B. R. (2021). The Effect of Green Marketing Function on Purchase Intention Through Corporate Image. *Jurnal Organisasi Dan Manajemen*, *17*(2), 151–163. https://doi.org/10.33830/jom.v17i2.1493.2021

Pacheco, M. G. (2019). The Impact of Greenwashing Perception on Green Purchasing Intentions: The Mediating Role of Green Trust, Consumer Brand Engagement and Green Word-of-Mouth and the Moderating Role of Product Involvement [Master's Thesis, *ISCTE-Instituto Universitario de Lisboa (Portugal)]*. https://search.proquest.com/openview/30df022d1d973dea4bad23bd5168f607/1?pq-origsite=gscholar&cbl=2026366&diss=y

Panda, T. K., Kumar, A., Jakhar, S., Luthra, S., Garza-Reyes, J. A., Kazancoglu, I., & Nayak, S. S. (2020). Social and environmental sustainability model on consumers' altruism, green purchase intention, green brand loyalty and evangelism. *Journal of Cleaner Production*, *243*, 118575.

Parker, C., Scott, S., & Geddes, A. (2019). Snowball sampling. *SAGE Research Methods Foundations*. https://eprints.glos.ac.uk/6781

Peffers, K., Tuunanen, T., & Niehaves, B. (2018). Design science research genres: Introduction to the special issue on exemplars and criteria for applicable design science research. *European Journal of Information Systems*, *27*(2), 129–139. https://doi.org/10.1080/0960085X.2018.1458066

Saunders, M. N. (2012). Choosing research participants. *Qualitative Organizational Research: Core Methods and Current Challenges*, 35–52.

Setiawan, E. B. (2018). The role of word of mouth in increasing purchase intention of low cost green car. *Advances in Transportation and Logistics Research*, *1*, 88–96.

Vincent, U. (2015). JRC Guidelines for 1. Selecting and/or validating analytical methods for cosmetics 2. Recommending standardization steps for analytical methods for cosmetics. *Luxembourg: Publications Office of the European Union.* https://publications.jrc.ec.europa.eu/repository/bitstream/JRC96082/15.06.18_eur27 284_jrc-report-cosmetics%20final.pdf

Zhang, L., Li, D., Cao, C., & Huang, S. (2018). The influence of greenwashing perception on green purchasing intentions: The mediating role of green word-of-mouth and moderating role of green concern. *Journal of Cleaner Production*, *187*, 740–750. https://doi.org/10.1016/j.jclepro.2018.03.201

EXTENDED ABSTRACT

The idea for protecting the environment has resulted in a shift in demand for eco-friendly products, and the cosmetic industry is one of the sectors that receives more attention to incline towards natural ingredients and supply organic products in the market. The history of cosmetics has evolved alongside human civilization, beginning with early practices rooted in fishing, hunting, and superstitions. As society progressed, the focus shifted toward medicine and pharmacies, with cosmetics adapting to these changes. The origins of cosmetics can be traced back to ancient Egypt, where they were primarily used for hygiene and health benefits. In contrast, the use of cosmetics for healthcare and anti-aging purposes is a more recent development. In 1984, Albert Kligman coined the term "cosmeceuticals," combining "cosmetics" and "pharmaceuticals," to describe products offering both cosmetic and therapeutic value. In ancient times, people relied on natural elements such as water, salts, metals, and plant and animal extracts for their healthcare and cosmetic needs (Amberg & Fogarassy, 2019).

The current study investigates the relationships between green word-of-mouth (WOM), green brand image, and green purchase intentions within cosmetic sector in Antalya, Türkiye. The role of green WOM in influencing green purchasing behavior is an area

of growing interest among marketers and researchers. Studies such as (Román-Augusto et al., 2022) and (Andrian, 2022) have shed light on the potential of green WOM to impact consumer behavior positively and purchasing intentions. Green WOM can enhance consumer satisfaction, trust, and perceived value, all important factors influencing purchasing intentions (Román-Augusto et al., 2022) By facilitating interpersonal communication about environmentally friendly products, green WOM can increase consumer awareness and generate interest in these products. Furthermore, positive messages about green companies and their products can enhance trust and satisfaction, encouraging consumers to purchase. The effect of digital marketing on purchase intention was examined by (Alwan & Alshurideh, 2022), and they found that brand equity plays a mediating role. The study concluded that digital marketing, including e-WOM, positively impacts the intention to buy green products, and this impact is mediated by brand equity. This suggests that digital marketing can positively impact consumers' intentions to purchase environmentally friendly products, particularly when the company has a strong reputation and a good brand image.

According to (Chahal et al., 2022) study, electronic word-of-mouth (e-WOM) has a significant positive impact on brand equity, which refers to the non-functional value that a brand adds to a product. Factors influencing brand equity include the company's environmental reputation, product quality, and perceived social and environmental benefits of using the product. In addition, positive e-WOM can help enhance brand equity by increasing consumer trust and loyalty toward the brand. This is because consumers tend to trust a brand more when they see positive recommendations from other consumers, perceiving it as dependable and trustworthy.

In this study, convenience sampling method through an online survey had chosen, and resulted a 274 participant who used green cosmetic products and the analysis conducted using SPSS 27 and AMOS 24. The study reveals a strong correlation between green brand image and green purchase intentions, with consumers more likely to purchase from brands that have a positive environmental image. Moreover, green brand image partially mediated the relationship between green WOM and purchase intentions, indicating that a positive green brand image serves as an intermediary factor, converting promising word-of-mouth into increased purchase intentions. The mediation role of GBI has also been depicted by many scholars previously as an example; in a study conducted by (Setiawan, 2018), the author found that the relationship between word-of-mouth (WOM) and the intention to buy affordable, environmentally friendly vehicles is partially mediated by the green brand image. GBI describes how customers see a company's environmental policies. Consumers that care about the environment are more inclined to patronize businesses with a solid green brand image. According to numerous research, a green brand's perception influences consumers' inclinations to make green purchases. The result implies that companies should prioritize green practices and build a strong, authentic brand image through sustainable initiatives. Positive word-of-mouth can significantly enhance consumer satisfaction and boost purchase intentions. However, companies must be cautious of negative practices, as both direct and indirect relationships exist between GWOM, GBI, and GPI.