

THE EFFECT OF GREEN MARKETING MIX PROGRAMS ON
BRAND ATTACHMENT IN THE RESTAURANT INDUSTRY



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2025

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Thesis submitted to the
Institute for Graduate Studies in Social Sciences
in partial fulfillment of the requirements for the degree of

Master of Arts

in

Sustainable Tourism Management

by

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2025

The Effect of Green Marketing Mix Programs
on Brand Attachment in the Restaurant Industry

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DECLARATION OF ORIGINALITY

I, Ulviyya Jahangir, declare that:

- I am the sole author of this thesis. All sources of ideas and wording that have been produced or published by another person or institution have been fully acknowledged and documented in my thesis.
- This thesis does not include materials that have been submitted or accepted for any degree or diploma at another educational institution.
- This is a true copy of the thesis approved by my advisor and thesis committee at Boğaziçi University, including the final revisions they required.

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ABSTRACT

The Effect of Green Marketing Mix Programs on Brand Attachment in the Restaurant Industry

With intensifying environmental concerns, sustainability has become an essential priority for the restaurant industry. In response, businesses are increasingly implementing green marketing strategies to reduce their ecological footprint and strengthen their connections with environmentally aware consumers. Therefore, the purpose of this study is to explore the effect of green marketing mix elements—green product, green price, green place, and green promotion—on brand attachment, with the mediating role of brand image. Following the Stimulus-Organism-Response (S-O-R) framework, the present research developed a research model, which conceptualizes green marketing elements as external stimuli, brand image as the consumer's internal cognitive and emotional evaluation(organism), and brand attachment as the behavioral outcome(response). To test the model, data were collected via an online questionnaire administered to restaurant guests in Türkiye who had previously dined in establishments recognized for their sustainable practices. The data were analyzed by using Partial Least Squares Structural Equation Modeling (PLS-SEM). The results indicate that while green product practices enhance brand image, they exert a negative direct effect on brand attachment. Green place and green promotion practices positively influence brand image, but their direct impacts on brand attachment are statistically insignificant. Conversely, green price exhibits an insignificant effect on brand image while exerting a significant negative influence on brand attachment. Furthermore, brand image mediates the relationship between green product, green place, and green promotion practices and

brand attachment; however, its mediating role in the relationship with green price is not significant. This research provides valuable theoretical insights by integrating brand image into the relationship between green marketing and consumer-brand relationship. It also offers practical recommendations for restaurant managers aiming to enhance customer brand attachment through sustainability-focused branding efforts.



ÖZET

Restoran Endüstrisinde Yeşil Pazarlama Karmasının Marka Bağlılığına Etkisi

Artan çevresel kaygılar doğrultusunda sürdürülebilirlik, restoran sektörünün temel önceliklerinden biri hâline gelmiştir. İşletmeler, çevresel etkilerini azaltmanın yanı sıra çevre bilincine sahip tüketicilerle daha güçlü ilişkiler kurmak amacıyla yeşil pazarlama stratejilerini giderek daha fazla benimsemektedir. Bu çalışma, yeşil pazarlama karması unsurlarının—yeşil ürün, yeşil dağıtım, yeşil fiyat ve yeşil promosyon—marka bağlılığı üzerindeki etkilerini, marka imajının aracı rolü çerçevesinde incelemektedir. Uyarın- Süreç-Tepki (Stimulus-Organism-Response) teorisi çerçevesine dayalı olarak; yeşil pazarlama uygulamaları dışsal uyarıcı (uyaran), marka imajı tüketicinin bilişsel ve duygusal değerlendirmesi (süreç) ve marka bağlılığı ise davranışsal tepki (tepki) olarak kavramsallaştırılmıştır. Araştırma verileri, sürdürülebilir uygulamaları benimseyen restoranlarda daha önce yemek yemiş Türkiye’deki tüketicilerden çevrimiçi anket yoluyla toplanmıştır. Elde edilen veriler, Kısmi En Küçük Kareler Yapısal Eşitlik Modellemesi (PLS-SEM) yöntemi ile analiz edilmiştir. Bulgular, yeşil ürün uygulamalarının marka imajını olumlu yönde etkilediğini; ancak marka bağlılığı üzerinde doğrudan negatif bir etki yarattığını ortaya koymuştur. Yeşil dağıtım ve yeşil promosyon uygulamaları marka imajını olumlu etkilerken, bu unsurların marka bağlılığı üzerindeki doğrudan etkileri istatistiksel olarak anlamlı bulunmamıştır. Öte yandan, yeşil fiyatlandırma stratejileri marka imajı üzerinde anlamlı bir etki oluşturmazken, marka bağlılığı üzerinde anlamlı ve olumsuz bir etkide bulunmuştur. Ayrıca, marka imajının yeşil ürün, yeşil dağıtım ve yeşil promosyon uygulamaları ile marka bağlılığı arasındaki ilişkilerde anlamlı bir aracı rol üstlendiği, buna karşın yeşil fiyatlandırma ile marka bağlılığı

arasındaki ilişkide bu aracılığın istatistiksel olarak anlamlı olmadığı belirlenmiştir.

Elde edilen sonuçlar, marka imajının yeşil pazarlama stratejilerinin tüketici bağlılığı üzerindeki etkisinde kilit bir aracı değişken olduğunu ortaya koymaktadır.

Bu araştırma, marka imajını aracı değişken olarak ele alarak yeşil pazarlama ve tüketici-marka ilişkileri literatürüne kuramsal katkı sunmakta; aynı zamanda sürdürülebilirlik odaklı marka stratejileri geliştirmeyi hedefleyen restoran yöneticileri için önemli uygulamalı çıkarımlar sağlamaktadır.



ACKNOWLEDGEMENTS

I would like to extend my heartfelt gratitude to my thesis advisor, Assoc. Prof. Ezgi Erkmen, for her invaluable guidance, insightful feedback, and unwavering support throughout every stage of this research. Her expertise and encouragement have been instrumental in shaping the direction and quality of this thesis.

I am also sincerely thankful to the esteemed faculty members of the Sustainable Tourism Management program in the Department of Tourism Management at Boğaziçi University for fostering an intellectually enriching environment and for providing access to the academic resources.

Finally, I wish to express my deepest appreciation to my family and friends for their continued encouragement, patience, and moral support throughout my academic journey.

DEDICATION

This thesis is dedicated to my daughter, with the hope that she will grow up in a more sustainable and environmentally conscious world.



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CHAPTER 1

INTRODUCTION

1.1 Research background

In recent decades, environmental protection, sustainability, and green initiatives have gained significant attention, becoming prevalent buzzwords across various industries. Over the years, sustainability has been defined by various organizations, each providing a unique perspective. One of the most widely accepted definitions comes from the Brundtland Report (World Commission on Environment and Development 1987, p.43), which describes sustainability as “development that meets the needs of present generations without compromising the ability of future generations to meet their own needs”. At its core, sustainability is built on three pillars: environmental, social, and economic sustainability. Known as the triple bottom line approach, this framework acknowledges the importance of balance among all three dimensions. Environmental sustainability refers to the ability to protect and preserve the natural environment over time through appropriate practices. The importance of environmental sustainability has been amplified by the threats that impact human health, water availability, food security, and economic well-being. Social sustainability concentrates on the well-being of people and communities, promoting equity, human rights, access to resources, healthcare, and education. Social sustainability aims to reduce inequalities and provide long-term well-being for all people. On the other hand, economic sustainability involves conducting economic activities in a way that protects and promotes long-term well-being.

From a business perspective, the concept has evolved from being a peripheral concern to a fundamental element of corporate strategy (Ioannou and Serafeim,

2021; Porter and Kramer, 2011). Now, businesses recognize the effectiveness of sustainable practices in enhancing reputation, reducing costs, and creating new market opportunities. In the early stages, the concept of sustainability was predominantly used in the context of social responsibility, where businesses engaged in environmentally friendly practices as a moral duty rather than a strategic necessity (Kumar et al., 2012). Following the publication of the Who Cares Wins report by United Nations Global Compact in 2004 (UNGC, 2004), sustainability began to be approached through a structured lens of Environmental, Social, and Governance (ESG) criteria, positioning it as a core component of corporate strategy. In contemporary business practices, sustainability now plays a vital role, influencing consumer behavior and guiding corporate strategic decisions (Kotler and Keller, 2016). Nevertheless, the strategic value of sustainability varies significantly across industries; while certain practices may provide a competitive advantage in one sector, they might not yield similar benefits in another (Ioannou and Serafeim, 2021).

The tourism and hospitality industry represents one of the world's largest economic sectors, contributing to global GDP and employment (World Travel and Tourism Council, 2024). Meanwhile, the industry also has significant environmental and social impacts that necessitate the adoption of environmentally friendly practices. The publication of the book "Holidays That Don't Cost the Earth" by Elkington and Hailes (1992) marked a milestone in the industry's agenda, as it highlighted the industry's initial acknowledgment of its environmental impacts and the necessity of adopting sustainable practices. Sustainable tourism has emerged as an important approach to balance environmental conservation and social responsibility with economic benefit.

The industry exerts considerable pressure on the environment through various channels. Tourism development projects, for instance, can disrupt the ecosystem by contributing to habitat destruction, environmental degradation, and the depletion of finite resources (Gössling, 2002). Moreover, the operation of tourist establishments contributes to the negative impacts of the industry, as these facilities consume vast amounts of energy and water while generating significant amounts of waste. Moreover, the issue of overtourism, where the visitor numbers in popular destinations surpass sustainable limits, intensifies the negative impacts of the industry. This excessive concentration of tourists can overwhelm the local ecosystem, particularly in coastal regions, where insufficiently managed tourism activities have been linked to beach erosion, marine pollution, and biodiversity loss (Sunlu, 2003; Silvestri, 2018). Collectively, these challenges underline the importance of sustainability in the tourism and hospitality industry.

The restaurant industry represents a significant segment of the hospitality sector with unique sustainability challenges and opportunities. Its resource-intensive nature has a degrading effect on the environment and consumers (Baldwin et al., 2011). Unsustainable practices associated with food preparation, excessive waste generation, including both non-recyclable materials and food waste, air pollution from cooking processes, reliance on harmful chemicals, and overuse of natural resources (Salzberg et al, 2019) have been among the driving factors promoting the adoption of sustainable practices in the restaurant industry.

Given the industry's intensive resource consumption, high levels of waste generation, and carbon footprint, adopting sustainable practices is no longer optional but essential for long-term viability (Kasim and Ismail, 2012). The literature on sustainability, specifically in the restaurant industry, is relatively recent and focuses

on the environmental and social dimensions of sustainability. Studies have analyzed topics such as waste management (Kim and Hall, 2020; Papargyropoulou et al., 2019), energy efficiency (Hu et al., 2013; Perramon et al., 2014), water conservation (Jeong and Jang, 2011), carbon footprint reduction (Pulkkinen et al., 2016; Özgen et al., 2021), labor practices (Mejia, 2024), and community engagement (Huang and Hall, 2023). Although these topics highlight the key areas through which the industry contributes to environmental degradation, they also reveal the potential of green practices in reducing the negative footprint and fostering more responsible consumption. However, the successful implementation of green practices depends on how effectively these initiatives are communicated to stakeholders, especially consumers.

In this context, green marketing has emerged as a strategic tool that enables restaurants to promote their environmental practices while enhancing consumer awareness, shaping positive perceptions, and fostering behavioral change. Green marketing involves the design, communication, and delivery of sustainable offerings in a way that aligns with consumers' growing environmental consciousness (Leonidou et al., 2013). Green marketing plays a fundamental role in shaping consumer behavior and brand equity (Chen 2010). By highlighting green initiatives such as organic menu options, sustainable sourcing, and waste management, restaurants not only differentiate themselves but also build trust and loyalty among consumers (Peattie and Crane, 2005).

Prior research has explored the impact of green marketing practices in the restaurant industry, covering aspects such as consumer behavior (Boztepe, 2012; Kim et al., 2013; Kim and Hall, 2020; Wang et al., 2016; Xu and Jeong, 2019), financial performance (DiPietro et al., 2013), and brand equity (Chen 2010;

Namkung and Jang, 2013; Nguyen-Viet, 2023). Additionally, sustainability management (Cantela and Cassia, 2020; Jang, 2016; Wang et al., 2013; Yoon et al., 2020) and attitudes toward green restaurants (Cantela and Cassia, 2020; Jeong et al., 2014; Kwok et al., 2016; Namkung and Jang, 2013; Tan et al., 2018) represent the most studied topics in the sustainable restaurant literature. Overall, these studies mainly concluded that green practices provide significant benefits to restaurant businesses. On one hand, the application of green marketing initiatives, such as menu design, waste reduction programs, social media campaigns, and storytelling through green design, serves as a means to show environmental commitments. On the other hand, such initiatives also provide businesses with a competitive edge (Hu et al., 2010). As such, “green practices enable companies to save on long-term operational costs while gaining a competitive advantage by developing or enhancing a positive image or reputation” (Jeong et al., 2014, p.10).

1.2 Problem statement

While prior studies have investigated the relationship between green marketing and consumer behavior, there is limited empirical evidence on how all elements of the green marketing mix contribute to brand attachment (Leonidou and Skarmas 2017). That is, previous research has mainly investigated the influence of individual components of the green marketing mix on behavioral intentions and brand equity. For instance, the studies conducted by Namkung and Jang (2013) and Kwok et al. (2016) focused on food-related green practices and their effect on green brand equity formation. Similarly, Chen (2008) investigated the effect of green product innovation on the green image of restaurants. Likewise, Chang (2011) investigated the green advertising efforts of firms and how consumers with ambivalent feelings toward

green products respond to these promotional initiatives. Thus, the findings further contributed to the understanding of green promotion within the restaurant industry. Moreover, Gupta et al. (2019) focused on dining atmospherics and examined the impact of the green place element of the marketing mix on re-patronage intention. Finally, the green price domain is mainly explored from price fairness, willingness to pay perspectives in the restaurant literature (Choi and Parsa, 2007; Kwok et al., 2016; Namkung and Jang, 2017). Hence, even existing literature provided insight into how green product, place, price, and promotion practices influence brand attitudes of restaurant guests, these studies lack a holistic approach in addressing the effects of marketing mix elements (Jeong and Jang, 2014; Manaktola and Jauhari, 2007).

Moreover, there is a notable gap in the literature concerning the comprehensive examination of all green marketing mix elements and their impact on brand attachment, particularly in the restaurant industry. Even though it has been evidenced that brand experience driven through different touchpoints with the brand has a positive impact on brand attachment, limited attention is paid to experiential perspective (Huaman-Ramirez and Merunka, 2019). Hence, it is particularly important to adopt a holistic view to understand consumers' experience at different points of interaction with the brand (Brakus et al., 2009) and how consumer experience influences brand attachment. Park et al. (2010) also argued that it is especially important to study brand attachment since the concept could be more important than brand loyalty to develop a long-term relationship with customers. Thus, it is important for both academicians and practitioners to understand the antecedents of brand attachment.

Since brand image represents the perceptions of consumers towards a brand based on the associations related to a particular brand (Cretu and Brodie, 2007), consumers are more likely to develop an attachment to the brand when they have favorable perceptions (He et al., 2016). Therefore, green marketing practices may serve as a means to develop positive associations of the brand in the minds of consumers, which, in turn, may have a positive impact on brand attachment. However, prior literature overlooked the role of green brand image in influencing the green brand attachment of restaurant patrons. As such, built on the framework of the Stimulus-Organism-Response (SOR) model, the current research investigates the effects of green marketing mix elements on brand image and brand attachment. Moreover, this study analyzes the mediating role of brand image in the relation between green marketing mix elements and brand attachment.

1.3 Purpose of the study

Based on the gaps identified in the prior literature, the current research aims to understand the effect of each green marketing mix element on green brand attachment, with the mediating role of green brand image. More specifically, the purposes of this study are threefold. First, this research investigates the direct effect of each green marketing mix element on brand image and brand attachment. Second, the current study examines the effect of green brand image on green brand attachment. Third, this research analyzes whether brand image mediates the relationship between green marketing mix elements and green brand attachment. With regard to the purpose of this study, the main objectives of the current research are the followings:

- i. To examine the effect of green marketing mix elements, specifically, green product, green place, green price, and green promotion, on green brand image.
- ii. To examine the effect of the green marketing mix elements, specifically green product, green place, green price, and green promotion, on green brand attachment.
- iii. To analyze the effect of green brand image on green brand attachment.
- iv. To investigate the mediating role of brand image for the relationship between green marketing mix elements (green product, green place, green price, and green promotion) and green brand attachment.

1.4 Research questions

With regard to the purpose and specific objectives of this study, the current research answers the following research questions:

Q1: What is the effect of green marketing mix elements on brand image?

Q1a: What is the effect of green product on green brand image?

Q1b: What is the effect of green place on green brand image?

Q1c: What is the effect of green price on green brand image?

Q1d: What is the effect of green promotion on green brand image?

Q2: What is the effect of green marketing mix elements on green brand attachment?

Q2a: What is the effect of green product on green brand attachment?

Q2b: What is the effect of green place on green brand attachment?

Q2c: What is the effect of green price on green brand attachment?

Q2d: What is the effect of green promotion on green brand attachment?

Q3: What is the effect of green brand image on green brand attachment?

Q4: Is the relationship between green marketing mix elements and green brand attachment mediated by green brand image?

Q4a: Is the relationship between green product and green brand attachment mediated by green brand image?

Q4b: Is the relationship between green place and green brand attachment mediated by green brand image?

Q4c: Is the relationship between green price and green brand attachment mediated by green brand image?

Q4d: Is the relationship between green promotion and green brand attachment mediated by green brand image?

CHAPTER 2

LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

2.1 Green marketing

The origins of green marketing date back to the 1970s when it was referred to as “ecological marketing” (Polonsky, 2008). The concept has undergone significant evolution since its inception. Henion and Kinnear (1976) defined ecological marketing as marketing initiatives that focus on tackling environmental challenges, such as resource depletion, and aim to offer solutions to these problems. Over time, green marketing progressed through three distinct phases, as outlined by Peattie (2001). The initial phase, “Ecological” green marketing, emerged in the 1970s and focused primarily on addressing immediate environmental concerns, such as resource depletion, pollution, and waste management, without altering business models. The second phase, “Environmental” green marketing, which is defined as *“the holistic management process responsible for identifying, anticipating and satisfying the needs of customers and society, in a profitable and sustainable way”* (Peattie 2001, p.141), adopted a proactive approach. As such, this phase involved the integration of environmental considerations into the overall management processes. Finally, the third phase, called the “Sustainable” green marketing, acknowledged the interrelation between the physical environment, social welfare, and the economic system. Thus, this phase focused on creating value, which benefits not only businesses but also society and the environment in the long run (Dangelico and Vocalelli, 2017; Mishra and Sharma, 2014; Peattie, 2001).

In addition to the various phases of green marketing, the literature also focuses on the distinctions among concepts related to green marketing. For instance,

Van Dam and Apeldoorn (1996) proposed that ecological marketing prioritizes environmental responsibility as an ethical obligation, whereas green marketing is mainly influenced by market-driven dynamics. In a similar vein, Dangelico and Vocalelli (2017) distinguished green marketing from sustainable marketing, which promotes a long-term approach for organizations that harmonizes profitability with environmental considerations, allowing businesses to recognize and execute trade-offs between ecological issues and their goals.

Since green marketing has evolved over time and there are overlapping concepts in the literature, there is no universally accepted definition of green marketing. Scholars have explored and conceptualized green marketing in various ways. For example, Charter (1991) emphasizes that green marketing aims to reduce environmental impact throughout the product's lifecycle, including material sourcing, production, promotion, use, and disposal, ensuring that sustainable practices are followed at each step. Similarly, Dangelico and Vocalelli (2017) highlight that green marketing activities aim to minimize adverse environmental impacts through the product-service exchange process. Peattie (2001) has further elaborated on the concept and defined green marketing as a comprehensive management approach that acknowledges, anticipates, and meets the sustainable needs of consumers and businesses while ensuring effective and sustainable operations. As such, this definition highlighted the managerial responsibility of incorporating sustainability into the core operational framework of enterprises. Specifically, according to these conceptualizations, businesses aim to link sustainability practices with profitability. In line with this view, Leonidou et al. (2013) describe green marketing strategies as those that meet the firm's financial and strategic goals with minimal negative environmental impact.

On the other hand, Chen and Chang (2013) extend the implications of green marketing to the demand side and argue that green marketing also plays a strategic role in stimulating environmentally friendly attitudes among consumers. According to this perspective, green marketing can build a stronger bond with environmentally conscious consumers and create more sustainable consumption patterns. Likewise, Majeed et al. (2022) analyze green marketing from a strategic perspective and assert that firms can achieve a competitive advantage while enhancing their brand image by strategically positioning products in the minds of consumers. Therefore, based on the different conceptualizations of the green marketing concept, the current research refers to green marketing as a strategic approach that integrates sustainability into various marketing programs, including product, place, pricing, and promotion (Chamarro and Bañegil, 2006; Peattie, 2001; Polonsky, 2008; Polonsky and Rosenberger, 2001).

The academic literature highlights various internal and external factors influencing the adoption of green marketing practices by businesses (Chan, 2014; Laroche et al., 2001; Martinez, 2015; Vlad et al., 2016). These factors encompass achieving corporate objectives (Punitha and Rasdi, 2013), adhering to governmental regulations (Polonsky, 2008), improving brand reputation (Lee et al., 2010), and addressing competitive market pressures (Currin, 2012). In addition to these factors, another key reason for adopting green marketing practices is their significant impact on consumer responses and behaviors.

Previous literature acknowledges the benefits derived from the positive effects of green initiatives on consumers. For instance, Boztepe (2012) studied the effect of green marketing on consumers' buying behavior and found a positive correlation between green purchasing behavior and environmental awareness, green

product, green price, and green promotion. Similarly, Delafrooz et al. (2014) highlighted the influence of green marketing tools, such as eco-labelling, eco-branding, and environmental promotion, on consumer behavior. Their findings revealed that environmental advertising had the greatest impact on consumers' purchasing behavior, while eco-branding exerted the least influence. Wu and Chen (2014) further offered an alternative perspective by exploring the relationship between green marketing awareness and perceived quality, price, and risk, as well as their impact on purchase intention. The study concluded that green marketing awareness enhances consumers' perceived quality, value, and purchase intention, while reducing perceived risk. Hence, this finding contrasts with the results of Delafrooz et al. (2014), which evidenced that eco-branding has minimal influence on consumers. As such, the contradictory findings suggest that perceived value might be context-dependent.

2.2 Green marketing in the hospitality industry

Green marketing has been implemented in various industries, including automotive (Nunes and Bennett, 2010; Simão and Lisboa, 2017), manufacturing (Chan et al., 2012; Liu et al., 2012), fashion (Sung and Kim 2010), and hospitality (Chung, 2020; Martinez, 2015). Although each industry adopts green marketing strategies based on its specific market needs, the motivation behind these initiatives is “to meet the needs of the present without compromising the ability of future generations to meet their own needs” (World Commission on Environment and Development, 1987, p.43). Specifically, in the hospitality industry, the development of green marketing tactics is driven by the demand to meet consumers' environmental consciousness (Buenaventura and Gutierrez, 2023; Chan, 2013). The implementation of green

marketing strategies in the hospitality industry serves to address the preferences of environmentally conscious consumers while simultaneously enhancing the profitability of hospitality businesses (Butler, 2008; Dief and Font, 2010; King and Lenox, 2001).

The hospitality industry, including both hotels and restaurants, has adopted green practices as a strategy to achieve environmental sustainability. For example, promoting environmentally friendly products and services, such as using locally sourced ingredients in food and beverage outlets, incorporating sustainable building and service features, and receiving recognition through green awards, are considered green marketing strategies adopted by the sector (Chan, 2014). Martinez (2015) posits that adopting green marketing initiatives in the hospitality industry can yield significant environmental advantages while simultaneously enhancing the firm's financial performance. Moreover, sustainable practices have the potential to positively influence the attitudes and behaviors of the customers. For example, Manaktola and Jauhari (2007) examined the effect of green practices on consumer attitudes and concluded that a tangible demonstration of green practices positively affects consumer perceptions of hotels implementing green initiatives. Similarly, Han and Kim (2010) explored the relationship between consumer behavior and green practices in the hotel industry. The authors expanded the Theory of Planned Behavior (TPB) by incorporating overall image, customer satisfaction, and past behavior frequency into the model. The findings revealed that overall image and customer satisfaction positively influence attitude formation, which enhances the model's ability to predict customers' intentions to choose green hotels. However, while the implementation of green marketing practices positively influences the

brand image of hotels by fostering a favorable reputation, these initiatives do not necessarily result in customer loyalty all the time (Aly, 2023).

In addition to the hotel industry's commitment to green marketing practices, the restaurant industry, as a part of the hospitality sector, has started to pay attention to green marketing activities. Chou et al. (2012), who studied the adoption of green practices from an innovation adoption perspective, suggested that consumer attitudes play a significant role in the adoption of green practices. Hence, academicians have displayed a growing interest in green marketing within the restaurant industry by covering various aspects, such as customer perceptions, behavioral intentions, and branding perspectives (Choi and Parsa, 2006; Jeong and Jang, 2010; Namkung and Jang, 2013; Szuchnicki, 2009). Jeong and Jang (2010) demonstrated that recycling waste, using energy-efficient lighting, and employing recyclable take-out containers are among the key green practices that affect a restaurant's ecological image. Similarly, Namkung and Jang (2013) evidenced that the implementation of food-oriented green practices positively influences the customers' perception of green image. With regard to food-related initiatives, factors such as nutritional value, portion size, and ingredients have been found to positively influence consumers' perceptions of the restaurant's green image, thereby boosting their willingness to purchase (Remar et al., 2022). Additionally, Rahimah and Yuliaji (2024) highlighted the positive influence of energy conservation and local sourcing on shaping consumers' perception of a restaurant's environmental image. Kwok et al.(2016) also examined the influence of green attributes of restaurants on consumer behaviors and found that consumers prioritize environmental attributes over food and service-related attributes. The authors further argued that the perceived significance of food

and service-focused attributes exerts a significant positive impact on consumers' willingness to pay more, travel farther, and wait longer to dine at a green restaurant.

2.3 Green marketing mix

The concept of the Marketing Mix, which was first introduced by Borden (1964), identified twelve controllable marketing elements (product planning, pricing, branding, personal selling, channels of distribution, advertising, promotions, packaging, display, physical handling, servicing, fact finding and analysis) that businesses could adjust to influence consumer behavior. Building on the previous foundation, McCarthy (1964) refined this concept into a more widely recognized framework known as the "4Ps" of marketing that consists of product, place, price, and promotion. However, with growing environmental concerns, Kotler (2011) highlighted the need for reassessing marketing strategies and practices to align with environmental sustainability and suggested that companies must integrate environmental considerations into their marketing strategies by developing sustainable products, adjusting pricing based on eco-friendliness, optimizing production and distribution, and promoting their commitment to sustainability through transparent communication and environmentally conscious advertising. Therefore, this shift from traditional marketing to sustainable marketing has led to the development of the green marketing mix as a modern extension of the original framework. The green marketing mix, which has been explained below, adapts the traditional 4P model and integrates environmental sustainability into its framework (Kumar and Ghodeswar, 2015).

Green Product: The shift in consumer preferences has resulted in more companies engaging in the redesign and redevelopment of products (Chen and

Chang, 2013). Green products are characterized by their limited negative impact on the environment and their reliance on locally sourced natural materials that are recyclable and biodegradable (Durif et al., 2010). Therefore, green products play a significant role in meeting environmental standards and policies by reducing dependence on non-renewable resources, preventing toxic effects, and promoting sustainable design (Hengboriboon et al., 2022).

Green Place: In the context of the 4Ps of green marketing, green place refers to the distribution and placement tactics employed for environmentally friendly products (Davari and Strutton, 2014). As such, this element of the marketing mix involves the deliberate selection of distribution methods and places that adhere to sustainability standards while attempting to avoid negative environmental impacts (Mukonza and Swarts, 2020).

Green Price: Green pricing is a strategy employed for eco-friendly products, where the price is determined based on the costs associated with the production, distribution, and disposal of these green products compared to conventional alternatives (Agustini et al., 2021; Agyeman, 2014; Ahmed et al., 2023; Mahenc, 2008). As such, the strategy considers both the environmental and economic costs of production, including the use of sustainable materials, waste minimization, ethical sourcing, and reliance on renewable energy sources that enhance value for consumers and profits for businesses (Leonidou et al., 2013).

Green Promotion: Hossain and Rahman (2018) define green promotion as a type of advertisement that emphasizes the benefits of green products and services. Thus, green promotion represents an emerging marketing approach that motivates consumers to choose products and services by leveraging their concern for environmental sustainability (Fahmi, 2023).

2.4 Green brand image

The brand is a name, logo, design, symbol, or a combination of these elements, serving as a unique identifier that differentiates one supplier's services and goods from another (American Marketing Association, 1960; Kotler, 1991). Hence, the suggested components serve as crucial identifiers of a firm's identity. The concept of brand image originated in the 1950s when Gardner and Levy (1999) introduced the term, describing it as the perception or symbolic meaning of a brand, influenced by consumer experiences, associations, and their overall personality. The authors further argued that brand image has more influential power in determining a brand's success than its technical attributes. Aaker (1991, p.109) defined brand image as "a set of associations organized in a meaningful way". All these foundational perspectives have thus laid the groundwork for establishing brand image as a central concept in the marketing and consumer behavior literature.

The concept of brand image has also gained importance in the restaurant industry as food establishments strive to distinguish themselves from their rivals (Namkung and Jang, 2013). Within the restaurant industry, brand image is one of the important predictors of satisfaction and brand trust (Jin et al., 2012; Low and Lamb, 2000). On the other hand, when the concept is adopted from the perspective of green marketing, the green image notion in the hospitality industry is shaped by the attributes and the information communicated about its sustainable initiatives (Han et al., 2009). This conceptualization also aligns with Chen's (2010) definition, which characterizes the green brand image as the perception of a brand based on its environmental commitments and ecological considerations. Therefore, adoption of green initiatives serves as a marketing strategy for restaurants to differentiate their

business from competitors in the market while boosting the attractiveness of the establishment for the consumers (Namkung and Jang, 2017).

The brand image primarily includes consumers' affective and cognitive perceptions along with physical attributes of products or services (Ditcher 1985; Lee et al., 2014; Reynolds and Gutman 1984). The application of green marketing mix elements into the restaurant's core operations also positively influences diners' affective and cognitive attitudes (Namkung and Jang 2013). Additionally, quality attributes such as ambiance, food, and service contribute to diners' perceived value, which, in turn, enhances the brand's image (Yi et al., 2018). Also, other tangible attributes, including recycling takeout containers and recycling bins, influence consumers' perception of service quality, which further triggers positive word-of-mouth (WOM) (Jeong and Jang, 2011). The positive WOM from experienced diners is especially important as customers' favorable comments help shape the restaurant's image for potential guests. However, consumers' perception of a restaurant's green brand image is not only affected by the green practices of restaurants but is also influenced by other factors, including awareness of sustainable practices, health consciousness, type of restaurant, and various demographic characteristics (i.e., age, education, income) (DiPietro et al., 2013; Hu et al., 2010; Jeong et al., 2014; Kim and Hall, 2020).

2.5 Green brand attachment

The attachment theory was developed by Bowlby (1969) as a psychological framework to explain the bond between infants and their caregivers. The author described attachment as a fundamental human need since this relationship plays a crucial role in ensuring survival and emotional development. Later, Ainsworth

(1978) expanded the theory by categorizing attachment styles as secure, avoidant, and anxious. Over the years, the attachment theory has been studied from various perspectives, and its scope has extended beyond interpersonal relationships to include bonds formed with possessions and brands (Dwayne Ball and Tasaki, 1992; Fournier, 1998). Grounded in attachment theory from psychology, marketing literature defines brand attachment as an emotional bond influenced by affective and cognitive factors among consumers (Thomson et al., 2005). The concept has gained significant attention in marketing research due to its impact on consumer behavior and brand relationships (Hemsley-Brown, 2023; Huaman-Ramirez and Merunka, 2019).

The marketing literature has studied brand attachment through four theoretical perspectives (Shimul, 2022). The first perspective suggests that individuals form attachments by incorporating the brand into their sense of self. In this approach, emotional significance varies according to the strength of the attachment. The second perspective conceptualizes brand attachment as the automatic retrieval of brand associations based on personal experiences (Park et al., 2006; Shimul, 2022). According to the third perspective, brand attachment refers to the extent to which a brand is integrated into the consumer's self-identity, influenced by the prominence of brand-related memories and the depth of emotional connection (Park et al., 2010). Finally, the fourth perspective highlights the importance of repeated interactions between the consumer and the brand in strengthening emotional attachment (Thomson et al., 2005). According to these theoretical perspectives, brand attachment involves a deeper emotional connection, which distinguishes the concept from brand attitude and has a more enduring impact on consumer behaviors (Park et al., 2006; Park et al., 2010), such as purchase intention, willingness to pay a

premium price, favorable word-of-mouth, and brand advocacy (Bahri-Ammari et al., 2016).

In line with brand attachment framework, green brand attachment has received increasing attention across various industries, and the concept has been also studied in restaurant literature to understand the relationship between environmentally friendly practices and consumer behavior (Bekar et al., 2020; Chen et al., 2017; Khan et al., 2022; Kim, 2022; Kim and Stepchenkova, 2018). A substantial body of prior research indicates that adopting green practices positively influences consumers' attachment to brands. For instance, Bekar et al. (2020) found that environmentally friendly practices in coffee shops foster customers' emotional attachment and brand loyalty. Similarly, Khan et al. (2022) demonstrated a positive association between attachment and loyalty within fast-food restaurants. Chen et al. (2017) specifically analyzed the effect of excessive green brand packaging on green brand attachment. Their findings suggest that while there is no direct relationship between green brand attachment and excessive packaging, it can indirectly influence brand attitudes, which may, in turn, negatively affect attachment. On the other hand, Jang (2021) examined green practices from the perspective of green atmospherics and found a positive relationship between emotional attachment and the green attributes of the servicescape. This finding also supports the results of previous research (Choi, 2017; Park et al., 2019), which highlighted the important role of a sustainable environment in fostering favorable attitudes toward the brand. Hence, the existing literature underscores the significance of the green brand attachment concept when evaluating consumer attitudes toward environmentally friendly practices in the restaurant industry.

2.6 Stimuli-Organism-Response theory

The Stimuli-Organism-Response (S-O-R) theory has strong explanatory power and flexibility in explaining consumer perceptions and behaviors in the context of tourism and hospitality (Jia et al., 2024). The theory has also been applied in consumer behavior studies within the restaurant industry (Chang, 2013; Chang and Lin, 2022; Das et al., 2024; Gopal et al., 2024; Kabadayi et al., 2023; Nusairat et al., 2020).

S-O-R Theory, which is developed by Mehrabian and Russel (1974), posits that environmental stimuli evoke emotional feelings which subsequently shape human behavior. Within the context of the S-O-R framework, the stimulus refers to external environmental factors that serve as triggers, activating the organism, which represents the individual's cognitive and emotional state (Nusairat et al., 2020). Ultimately, this process shapes the individual's response, which reflects the resulting behavior occurring as a reaction. The response includes both avoidance (i.e., dissatisfaction, skepticism) and approach (i.e., attachment, loyalty, positive WOM) behaviors. On the other hand, the organism embodies the internal processes that act as a mediator between the external environment (stimulus) and behavioral attitudes (response).

In the restaurant industry, the S-O-R framework has mainly been used to examine the relationship between consumers' emotions and their consumption behaviors. For example, Jang and Namkung (2009) explored the impact of perceived quality, namely the product, service, and atmospheric quality, on consumer emotions and behavioral intentions. Kabadayi et al. (2023) adopted the framework to understand the interrelated relations among the physical environment, brand love, and customer experience. The study provided valuable insights into how restaurants

can attain customer engagement by developing brand love through the physical environment. Segson and Tan (2018) also utilized the S-O-R theory to investigate the determinants that affect diners' intention to revisit upscale restaurants. The results revealed that effectively leveraging social media-induced norms can help restaurants shape positive attitudes among customers, foster satisfaction, enhance brand trust, and increase social media engagement, ultimately strengthening customer loyalty. Similarly, built upon the S-O-R framework, Chang and Lin (2022) investigated how green practices influence customer satisfaction. Specifically, the authors found that the implementation of effective green practices can boost the favorable impact of atmospheric cues on guests' satisfaction in the hospitality industry. Hence, the widespread application of the S-O-R framework in the literature underscores its relevance in analyzing consumer responses to environmentally friendly initiatives. As such, within the context of this current research, green marketing mix elements (green product, green place, green price, green promotion) are assumed to act as external stimuli that consumers encounter when interacting with a brand. While the brand image represents the organism, reflecting a perception of the brand's environmental responsibility, the green brand attachment represents the response reflecting emotional response that consumers develop toward the brand through the image aligning with their values and environmental concerns.

2.6.1 Stimulus: Green marketing mix elements

In the restaurant industry, sustainable activities encompass a wide range of activities, which extend from food-related strategies to environmental activities. Specifically, they include waste management, water and energy efficiency, sustainable sourcing, the incorporation of organic menu options, composting, the creation of

environmentally sustainable dining spaces, and the provision of educational information aimed at reducing the industry's environmental footprint (Gupta et al., 2019; Jang et al., 2011; Jang et al., 2015; Jeong et al., 2014; Lo et al., 2017; Namkung and Jang, 2013). Reflecting on the sustainable practices used in the restaurant industry, green initiatives are generally categorized into five sub-categories (Jun and Yoon, 2024), which are:

- Sustainable food practices
- Waste reduction strategies
- Recycle/reuse initiatives
- Energy and water conservation
- Social engagement practices

2.6.1.1 Sustainable food practices

Utilizing locally grown ingredients, providing healthy and fresh menu options, including organic food choices, and using sustainably produced foods (Namkung and Jang, 2013) are among the food-related green practices that not only contribute to environmental sustainability but also enhance the overall dining experience.

Additionally, the use of organically labeled food items and the avoidance of genetically modified food are also identified as sustainable food practices adopted by restaurants (Jeong and Jang 2010; Khuong, 2023). Menu offerings especially play an important role in consumers' restaurant choices, and many restaurateurs believe that organic sourcing underscores their green initiatives, thereby differentiating their brand in the market (Lu and Gursoy, 2017). Particularly, sourcing locally grown and organic food offers both tangible and intangible benefits for the restaurant businesses. Utilizing locally sourced ingredients reduces the need for long

transportation, ensuring that food is consumed close to its harvest time and preserves its nutritional value (Gagić et al., 2015). Moreover, locally sourced food items not only benefit consumer health but also contribute to community well-being by supporting local agriculture and reducing the negative impacts associated with food transportation.

2.6.1.2 Waste reduction strategies

The restaurant industry is the second largest contributor to global food waste, and food service establishments account for 26% of total food waste as reported by the Food Waste Index Report 2021 (UNEP, 2021). Consequently, the sector's substantial impact emphasizes the significance of waste management practices in the restaurant industry. The waste generated by the restaurant sector can be divided into two types, namely, the kitchen waste and consumer waste (Papargyropoulou et al., 2019).

One of the innovative waste prevention approaches is effective menu planning (Pearson, 2024). Since large portion sizes are one of the contributors to plate waste at restaurants, restaurants can offer controlled portions, ensuring that diners receive an appropriate amount of food that aligns with healthy nutritional standards (Buenaventura et al., 2024).

The use of sustainable packaging options is another method to mitigate the waste caused by the industry (Namkung and Jang, 2013). Packaging-related initiatives also have the advantage of conveying a visual message that reflects the restaurant's identity since packaging serves as a touchpoint between the diner and the restaurant (An, 2022). Thus, green packaging not only helps to shape consumer perceptions but also contributes to waste management efforts.

2.6.1.3 Recycle/reuse initiatives

The restaurant industry's recycle/reuse initiatives refer to the activities that focus on the utilization of materials that can be repurposed or recycled. These initiatives can also be considered zero waste initiatives (Renfors and Wendt, 2024). Reuse and recycling of the resources while designing the menu not only stimulates gastronomic development but also reduces the industry's ecological footprint (Nyberg et al., 2022; Renfors and Wendt, 2024). In fact, recycling and reusing initiatives provide benefits for restaurants in two ways. On the one hand, the use of recyclable materials contributes to effective waste management. On the other hand, it positively influences brand equity through favorable perceptions (Namkung and Jang, 2013).

2.6.1.4 Water and energy conservation

Water and energy consumption are inherent to the nature of restaurant operations. Cooking operations, refrigeration needs, and operating hours make restaurants one of the most energy-intensive commercial establishments (EIA, 2023). Hence, restaurant businesses adopt water and energy conservation strategies, which are mainly the use of energy-efficient lighting systems and water-saving devices to mitigate the negative environmental impact of the industry (Jeong and Jang, 2010).

2.6.1.5 Social engagement practices

The restaurant industry also implements social engagement practices, including transparent nutritional information, healthier menu options, sourcing from local suppliers, and the use of organic products (Jun and Yoon, 2024). These initiatives support restaurants in advancing sustainability while also fostering community well-being and consumer engagement.

Regarding various sustainable initiatives adopted by restaurants, the sub-categories of environmentally friendly practices can be analyzed under distinct marketing mix elements. These eco-friendly practices may act as stimuli that elicit attachment toward the brand and its sustainable offerings.

2.6.2 Organism: Green brand image

Within the S-O-R framework, the organism is an affective and cognitive state that functions as a mediator between external stimuli and consumer responses. Therefore, these states represent evaluative processes that guide consumer behavior (Mehrabian and Russell, 1974). In the context of this study, brand image acts as an organism, which reflects how diners perceive and evaluate the brand based on its green practices. According to the associative network model (Keller, 1987), memory consists of interconnected nodes that store and link information, thereby forming image associations. These nodes are created through not only direct experiences but also indirect experiences, such as marketing communications. Hence, consumers usually develop brand image through associations and perceptions (Isoraite, 2018).

Both tangible and intangible aspects of the restaurants may contribute to the construction of a sustainable brand image. Since consumers process the stimuli and store an image in memory based on perceived attributes (Keaveney and Hunt, 1992), the attributes that are evaluated holistically could be assumed to influence the overall image. As such, diners who are exposed to sustainable practices via different marketing mix elements can be more likely to perceive a favorable green brand image of the facility. For instance, visual brand elements such as menu design or logo can evoke a cognitive response by creating positive associations in consumers' minds (DE, 2024). Moreover, offering a diverse menu that features organic options

can evoke positive emotional responses among consumers, thereby enhancing their perceived value of the dining establishment (Jang et al., 2012). Similarly, atmospheric cues, such as temperature, air quality, and decoration style, positively influence consumers' perceptions of value (Chang and Lin, 2022). Therefore, atmospherics may also significantly influence a brand's image in consumers' minds by strengthening the connection between brand perception and environmental sustainability. In addition to product or service-related attributes, non-product-related attributes, such as price, are also found to influence brand image through associations (Keller, 1993). Specifically, premium pricing often acts as an indicator of superior food quality, thereby reinforcing a positive image in diners' minds (Namkung and Jang, 2017).

2.6.3 Response: Green brand attachment

Based on the context of the S-O-R framework, green brand attachment serves as a response to environmental stimuli in sustainable restaurants. When consumers encounter green practices, their affective and cognitive evaluations shape their brand perceptions, which lead to a stronger attachment. Likewise, a brand's image is formed through the functional and emotional connections that resonate in consumers' minds (Zhang, 2015). Functional associations relate to the tangible aspects of the brand, such as product quality, environmental practices, or service efficiency. Emotional associations, on the other hand, refer to the symbolic meanings that the brand conveys, such as luxury, sustainability, or authenticity, which evoke feelings or identity-based connections (Belaid and Temessek, 2011).

One key emotional mechanism is the concept of self-extension, a psychological process through which individuals incorporate a brand into their

identity (Belk, 1988). Self-extension occurs when the brand represents lifestyles, values, or identities that resonate with the consumer on a personal level. For instance, if a brand emphasizes sustainability and the consumer strongly identifies with environmentally friendly practices, the consumer may start to perceive the brand as a reflection of their own values. When a brand's image aligns with how an individual sees themselves, it creates a deeper emotional connection. This emotional connection is what ultimately fosters brand attachment, a powerful psychological link that can influence advocacy and long-term commitment to the brand (Erkmen and Hancer, 2019). Similarly, in the restaurant industry, brand image goes beyond tangible or visible factors. The importance of intangible factors underlies the critical link between green initiatives and brand image, which may have a significant impact on consumer behavior. Presumably, consumers show more favorable attitudes toward restaurants that have a stronger brand image. Therefore, the image plays a crucial role in determining green brand attachment (Aaker, 1996).

2.7 Hypothesis development

2.7.1 The effect of green marketing mix elements on green brand image

Green products represent the offerings with environmentally friendly characteristics across various stages, including materials, manufacturing, distribution, recycling, disposal, and overall functionality (Nguyen-Viet, 2023). This broad definition provides a foundation for understanding green food practices from different perspectives. For instance, Kim and Hall (2020) focused on food sustainability and waste reduction as critical elements of green products. Similarly, Wang (2012) explored menu sustainability and found that seasonal menu planning can minimize waste. In fact, sustainable practices are essential tools for supporting brand image

(Ko and Jeon, 2024; Namkung and Jang, 2013). Prior literature clearly acknowledges the impact of green product practices on consumer responses, including brand image.

Various studies have emphasized the importance of food-related green practices in shaping customers' perceptions of a restaurant brand's image. Precisely, Namkung and Jang (2013) demonstrate that green practices influence behavioral intentions and improve green brand image with consistent results in both casual and upscale restaurants. Similarly, Jeong et al. (2014) highlight the role of green product practices in shaping green brand image. In a study of coffee shops, Ko and Jeon (2024) also revealed that the encouragement of eco-friendly products and recyclable take-out containers positively influences the perception of a green image. Moreover, the information provided by the restaurant regarding the estimated environmental impact of a meal, along with its health attributes, positively influences consumer behavior (Visschers and Siegrist, 2015). That is, providing information about the sustainability aspects of food items helps to form associations in diners' minds. These associations may further reinforce the perception that the establishment considers and tries to mitigate its negative impacts, thereby enhancing the restaurant's brand image. As such, the following hypothesis is proposed:

Hypothesis 1a: Green product positively influences green brand image.

Along with food and service quality, the physical environment is also one of the important elements that have a significant effect on the restaurant's image (Jin et al., 2012; Marinkovic et al., 2015). Since "image is expressed as a function of salient attributes of a particular store that are evaluated and compared to one another" (Namkung and Jang, 2013, p. 296), physical surroundings allow consumers to evaluate and shape the image of a particular restaurant (Jeong and Jang, 2010).

Jeong et al. (2014) described the restaurant's green image as diners' perceptions shaped by the restaurant's commitment to environmental sustainability. The appealing physical environment can serve as a tangible attribute that showcases the restaurant's commitment to sustainability, thereby positively influencing its brand image (Ryu and Han, 2011). Wang et al. (2013) investigated the application of green supply chain practices in developing green management standards for restaurants and focused on three key areas: green food materials, green environment and equipment, and green management social responsibility. The study evaluated indicators such as the utilization of green kitchen equipment featuring energy and water-saving technologies, the adoption of green building design, and the implementation of automated systems for monitoring lighting, and demonstrated their importance in building green management standards. This present study also argues that incorporating green practices when designing physical spaces shows that the food and beverage establishment has embraced green management standards to reduce the negative environmental impact of the industry. As such, restaurants may positively influence the perceptions of customers, which, in turn, may result in a favorable image. Thus, the following hypothesis is proposed:

Hypothesis 1b: Green place positively influences green brand image.

Considering the different elements of the marketing mix, green pricing practices also represent an important component of sustainable marketing strategies within the restaurant industry. According to Nguyen-Viet (2023), pricing is expected to play a significant role as an indicator of environmentally and socially responsible initiatives undertaken by firms. Specifically, green pricing helps to educate consumers about the value of spending more on eco-friendly products. Hence, the

educational aspect of green pricing allows businesses to position themselves as advocates of sustainability, thus strengthening their reputation.

Furthermore, previous research has shown that green pricing for products is closely linked to consumer perceptions of quality and responsibility (Riva et al., 2022; Sirdeshmukh et al., 2002; Tüver and Güzel, 2017). Ghobbe and Nohekhan (2023) suggested that consumers associate higher prices for green products with higher quality and environmental responsibility. Similarly, Kaur et al. (2022) associated premium prices with a pro-environmental nature and the quality of the product. In addition, Ba et al. (2002) suggested that a premium price can be perceived as compensation to a reputable brand for its environmental dedication while delivering high-quality products and services. Therefore, positive perceptions arising from green pricing initiatives promote the trust and credibility of the brand as well as foster a positive brand image. These findings suggest that effective and right implementation of green price practices can signal a brand's commitment to environmental sustainability, ultimately enhancing its image. Hence, the following hypothesis is proposed:

Hypothesis 1c: Green price positively influences green brand image.

As the last element of the marketing mix, green promotion can be used as a strategic initiative to shape the attitudes and behaviors of consumers. Particularly, the website and social media platforms of restaurants serve as valuable tools to communicate and promote sustainable activities. For example, communicating the use of organic and locally sourced food and waste management programs helps to educate consumers about the restaurant's commitments and shape its brand image (Remar et al., 2022). Additionally, engaging in social media has the potential to

generate emotional attachment among consumers, which can further strengthen the brand image (Febrian et al., 2022).

Since brand image is a product of effective communication strategies (Nguyen and Leblanc, 2001; Rahimah and Yuliaji, 2024), effectively communicating and promoting a restaurant's environmental commitments can foster trust among consumers by emphasizing its green practices (Rahimah and Yuliaji, 2024). For example, Martínez-Navalón et al. (2019) analyzed the impact of restaurants' sustainability content on social media and found that when consumers value shared social media posts, they are more likely to develop trust in the brand. Similarly, Hanaysha (2022) evidenced that when the restaurant provides informative content about their values, mission, and offerings through social media channels or website, it enhances consumers' perceptions of the brand. This informative approach builds trust as consumers feel more educated and confident about the restaurant's practices and commitment to environmental sustainability. As consumers develop trust in restaurants, they perceive greater value in their exchange, leading to repeat business and positive word of mouth. Because the trust-loyalty relationship enhances the reputation and image of a brand in the long term (Sirdeshmukh et al., 2002), this study proposes the following hypothesis:

Hypothesis 1d Green promotion positively influences the green brand image.

2.7.2 The effect of green marketing mix elements on brand attachment

Green products, which aim to minimize the negative environmental impact through their lifecycle, play a vital role in shaping consumer attitudes and values (Dangelico and Vocalelli, 2017). The theory of consumption values (Sheth et al., 1991) provides a framework for understanding how attributes of the product influence consumer

decisions. Specifically, functional, emotional, and epistemic values represent the values that are relevant to green products. Functional value is the perceived utility of a product or service derived from its quality, performance, reliability, and price (Sheth et al., 1991). Green product meets consumer expectations regarding value for money and quality while addressing environmental problems (Woo and Kim, 2019). Hence, the alignment of functionality and sustainability strengthens the consumer-brand relationship. On the other hand, emotional value is “the perceived utility acquired from an alternative’s capacity to arouse feelings or affective states” (Steth et al., 1991, p.161) while epistemic value is the perceived utility derived from a product or service’s capacity to spark interest and satisfy the demand for knowledge (Steth et al., 1991). As such, green products often stimulate interest in environmentally friendly activities, which fosters epistemic value. The epistemic value, then, translates into a greeter emotional value (Lin and Huang, 2012). These values not only deepen the understanding of brands’ environmental commitment by increasing green consumption (Wu and Chen, 2014) but also foster green brand attachment by aligning with personal values and offering novelty.

For example, Zhao et al. (2021) analyzed the impact of green packaging on brand attachment and found that green packaging positively affects brand attachment through brand trust. Specifically, brand attributes such as green packaging are found to signal a product or service’s environmental commitment, thereby enhancing perceived value and positively influencing consumer attitudes. Additionally, food quality is another important factor that influences customer behavior and decision-making in the restaurant industry (Ha and Jang, 2010; Namkung and Jang, 2007). Menu variety and nutrition (Kivela et al., 2000), portion size and healthy options (Ha and Jang, 2010), as well as taste and presentation (Josiam and Monteiro, 2004) are

among the major attributes of good food quality. Therefore, food-related green practices may also represent positive attitudes of restaurants toward sustainability, thereby improving the attachment of consumers (Bekar et al., 2020). Accordingly, this study develops the following hypothesis:

Hypothesis 2a: Green product positively influences the green brand attachment.

The green place element of the green marketing mix focuses on the restaurant's commitment to sustainability through altruistic efforts such as water-saving equipment, energy-efficient lighting, and recyclable take-out containers (Jeong et al., 2014). The findings of Wang et al. (2013) and Liang et al. (2011) suggest that the adoption of a green kitchen environment can help the restaurant and hotel industries minimize their carbon footprints. In addition to back-of-the-house sustainability initiatives, sustainable design practices such as the use of natural plants as decor instead of cut-out flowers enhance the aesthetic value while promoting environmental consciousness (Gupta et al., 2019). The ambiance created by green place practices serves as an influential factor in restaurant consumer experiences (Hyun, 2010; Soriano, 2002) and fulfills emotional values for consumers. Furthermore, green practices, including the use of environmentally friendly materials within the restaurant, influence the bond between brand and consumers by aligning with their personal values (Jang et al., 2015; Tumanan and Lansangan, 2012).

In fact, these practices not only contribute to environmental concerns but also elevate consumer perceptions of sustainability, which foster emotional connections with the brand. That is, the cumulative impact of green place practices strengthens the bond with the brand, ultimately leading to brand attachment. Thus, this study develops the following hypothesis:

Hypothesis 2b: Green place positively influences the green brand attachment.

Green price practices include the pricing strategies that reflect the cost of environmentally friendly initiatives, such as energy-efficient operations, organic food, portion control, and eco-friendly packaging (Buenaventura, 2024; Namkung and Jang, 2013; Zhang et al., 2025). These practices not only demonstrate a restaurant's commitment to environmental sustainability but also cater to the consumer demand for sustainable offerings. Abdullah and Tarmizi (2024) examined the impact of green pricing on consumers' purchasing decisions in fast-food restaurants and found that consumers prioritize environmentally conscious pricing and make purchasing decisions accordingly. More precisely, when the rationale behind the green price correlates with the customers' values regarding sustainability and its role in promoting sustainable development, the pricing strategy fosters positive consumer attitudes toward the brand (Gelderman et al., 2021). For example, Jang et al. (2011) highlighted the link between consumers' willingness to pay a premium for green services in the restaurant industry and the concept of brand-self connection. In contrast, Boztepe (2012) suggested that premium pricing can be perceived as a financial burden, which may weaken engagement with the brand. However, when consumers see paying a premium price as a meaningful contribution to sustainability, the price generates positive emotions, thus deepening their emotional connection with the brand. Thus, based on previous discussions, the current study proposes the following hypothesis:

Hypothesis 2c: Green price positively influences the green brand attachment.

In the highly competitive and constantly changing restaurant industry, businesses focus on strategies built on different marketing mix programs to highlight their distinct features and strengthen their market position. Specifically, the

promotion of green practices counts for one of the successful strategies that not only demonstrates sustainability efforts but also appeals to environmentally friendly consumers (Kirchoff et al., 2011; Suttikun and Mahasuweerachai, 2023). Especially, social media has emerged as an important marketing channel for promoting green activities and fostering stronger company-consumer relations (Kim and Stepchenkova, 2021; McCarthy et al., 2014; Wen and Song, 2017). Within the restaurant industry, social media allows restaurants to showcase their sustainability efforts while engaging with consumers (Kim and Stepchenkova, 2021). The content shared on social media can underpin consumers' belief that their purchases contribute to sustainability, thereby stimulating emotional attachment to the brand (Kim and Stepchenkova, 2021). This alignment between green practices and consumers' environmental values fulfills the need for self-identity and strengthens the emotional connection to the brand. However, the success of promoting green initiatives depends on the authenticity and transparency of the information. With growing skepticism toward sustainability claims, consumers are now more alert to green initiatives and the credibility of advertising. Many customers view green efforts as superficial marketing strategies or greenwashing aimed at gaining more financial benefits without actual commitment to sustainability (Dwivedi, 2015). Even though consumers may be skeptical about sustainability-related communications, prior literature has shown the positive impacts of green promotion activities. As long as the information includes interactivity, informativeness, and perceived relevance, these promotional activities are likely to positively influence brand engagement (Barreda et al., 2020; Cheung et al., 2021; Hanaysha, 2022; Lee and Hong, 2016). This engagement illustrates consumers' willingness to interact with the brand, which

may further help in developing an attachment over time. As such, the following hypothesis is proposed:

Hypothesis 2d: Green promotion positively influences the green brand attachment.

2.7.3 The effect of brand image on brand attachment

In the competitive restaurant industry, creating strong connections with consumers has become increasingly important for business success (Sharmen, 2018). Two key concepts in this domain are brand image and brand attachment, which play crucial roles in consumer-brand relationships.

Within the context of marketing literature, positive brand image is more than just an impression; it embodies the brand's quality, values, and identity as understood by consumers. Especially in service-intensive sectors such as restaurants, where the experiences are intangible and consumer evaluations are often emotional, brand image becomes a key driver of consumer behavior (Grace and O'Cass, 2005). Brand attachment, on the other hand, represents a strong emotional bond and sense of connection that consumers develop with a brand. A well-regarded brand image contributes to higher consumer trust and reliability with the brand, which is critical for attachment (Japutra et al., 2014). When consumers perceive a restaurant as trustworthy, environmentally responsible, or aligned with their lifestyle values, their attachment is further strengthened (Iyer et al., 2016). This is especially relevant in the case of sustainable restaurants, where brand image is not only built around food and service quality but also around environmental and social values (Chen and Chang, 2013). Such alignment between consumer values and brand image fosters effective commitment, which is central to brand attachment (Park et al., 2006).

This present research also assumes that positive green brand experiences in multiple touchpoints might lead consumers to have a favorable green brand image, which successively increases attachment to the brand. In the context of hospitality brands, positive brand experience is found to increase the brand attachment of guests (Kang et al., 2017). Because brand experience revolves around direct and indirect interactions with the brand (Baldwin et al., 1996), green brand image based on green initiatives at various touchpoints should contribute to developing a bond with the brand. Brand image is formed by positive associations based on consumers' evaluations (Keller, 1993), and these associations are created through favorable perceptions arising from the signs sent by the brand (Zhang, 2015). Hence, the brand image derived from associations with the brand may positively influence consumer brand-related attitudes. For instance, when consumers have more favorable impressions of the brand, they are more likely to build attachment (He et al., 2016). Within the framework of green marketing, Chen et al. (2017) also demonstrate that positive perceptions of the green marketing practices adopted by firms increase brand attachment of consumers. Considering green brands, consumers' perceptions toward the brand are shaped by environmentally friendly initiatives and performance (Chen, 2010). In this vein, the brand attachment is enhanced when consumers think that the brand is committed to sustainable practices (Chen et al., 2017). This is because brand image initiates positive responses from consumers, which in turn leads to the attachment to the brand. Based on these arguments, this study proposes the following hypothesis:

H3: Green brand image positively influences green brand attachment.

2.7.4 The mediating role of brand image

According to the functional theory of attitudes, attitudes serve a value-expressive role, which allows individuals to express their beliefs, self-identity, and values (Katz, 1960). Brand attitudes encompass both product and non-product-related attributes that fulfill the functional, experiential, and symbolic roles (Keller, 1993). Attitudes have become especially important since they serve as a core in multiple models, including the reasoned action model (Vallerand, 1992), the planned behavior model (Ajzen, 1985; Han and Kim, 2010), and the value-attitude-behavior model (Homer and Kahle, 1988).

A favorable image has an essential role in shaping consumers' attitudes, thereby impacting their green purchase intentions (Tan et al., 2022). Moreover, brand image has the power to influence its own sources. A well-established brand image can amplify the positive effect of green marketing mix elements, including product, place, price, and promotion, on brand attachment. For example, the application of organic food or locally sourced food options can signal environmental responsibility (Jang et al., 2015). These attributes associate the brand with environmentally friendly values, thereby strengthening consumers' emotional and cognitive ties to the brand. On the other hand, a strong brand image validates the credibility of premium pricing strategies for green offerings, making them acceptable to consumers (Goh et al., 2016).

Similarly, the integration of green atmospheric elements, such as natural lighting, natural decorations, and water- and energy-efficient equipment, reflects the restaurant's commitment to sustainability, which enhances its corporate image (Gupta et al., 2019; Jeong 2014; Muposhi and Dhurup, 2016; Wang et al., 2013). When these elements are reinforced by a strong brand image, they align with

consumers' values, thereby effectively strengthening consumers' attachment to the restaurant.

Furthermore, Xu and Jeong (2019) investigated the impact of green promotion practices on consumer attitudes within the restaurant industry. The findings showed that effectively communicated green initiatives positively influence diners' perceptions and attitudes toward the restaurant and improve the restaurant's brand image. In fact, an established reputation reduces consumer skepticism regarding promotion claims because these brands are perceived to have a genuine commitment to sustainability that results in greater attachment to the brand (Verleye et al., 2023). In light of the previous findings, this study also assumes that brand image can be a bridge for elevating the positive effect of green marketing mix elements on brand attachment and proposes the following hypotheses:

Hypothesis 4a: Green brand image mediates the relationship between green product and green brand attachment.

Hypothesis 4b: Green brand image mediates the relationship between green place and green brand attachment.

Hypothesis 4c: Green brand image mediates the relationship between green price and green brand attachment.

Hypothesis 4d: Green brand image mediates the relationship between green promotion and green brand attachment.

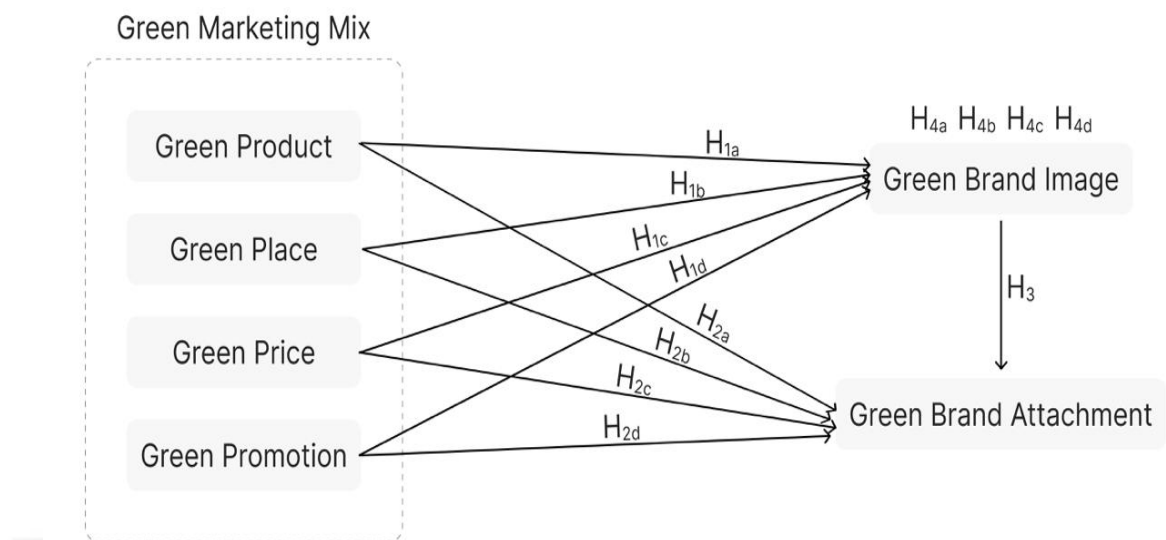


Figure 1. Conceptual model

CHAPTER 3

METHODOLOGY

3.1 Research design

The purpose of this research is to investigate the effect of green marketing mix elements on green brand attachment, with the mediating role of green brand image. The restaurant industry, as a sub-sector of the tourism industry, was chosen to analyze the role of green marketing mix programs in fostering brand attachment among consumers. Hence, this present study limited its context to the restaurant businesses to test the proposed research model.

With regard to the main approaches in research, this study was performed on the basis of deductive reasoning because it was designed to test the proposed hypotheses based on existing foundations and knowledge in the literature. As such, the present study was explanatory in nature. This research adopted a quantitative empirical research design to analyze the hypothesized direct and indirect relationships. A cross-sectional study design was employed to collect data from respondents at a single point in time. The unit of analysis was individuals, where primary data were gathered from restaurant customers.

3.2 Sampling and data collection

The target population included Turkish restaurant guests who had a prior experience with a green restaurant. The convenience sampling method was chosen to distribute the questionnaires to the respondents who had previously dined at a green restaurant. Data were collected through structured self-administered questionnaires, which were distributed via an online platform. The respondents were asked to recall their most

recent green restaurant experiences and answer questions accordingly. To ensure anonymity and uphold confidentiality, participants were not required to disclose their names or surnames. The data were collected starting from the end of February 2025 to the middle of April 2025.

At the end of data collection, the sample included 437 Turkish restaurant guests. After conducting data screening, list-wise deletion was applied to deal with response bias (Jackson et al., 2009), and 17 questionnaires were removed due to unengaged responses. As a result, the final sample included 420 questionnaires for the analysis. The adequate sample size was determined by the “10-times-rule” principle (Hair et al., 2017), which resulted in a minimum number of 370 observations. In addition, while Anderson and Gerbing (1984) proposed a sample size of between 100 and 150 respondents, Marsh et al. (1988) suggested a minimum sample size of at least 200 observations from respondents. Hence, this study also met the requirement of a minimum sample size based on the principles developed by other researchers.

3.3 Measurement scales

All the items in the self-administered structured questionnaire were adopted from prior studies. Utilizing measurement items derived from previous studies facilitated the inclusion of survey questions that possess adequate validity and reliability. Hence, previously tested measurement scales helped to deal with the limitation of variation on responses, which can arise from different interpretations of questions (Podsakoff et al., 2012).

The survey consisted of two sections. The first section included items measuring the variables used in the study, and the second section involved

demographic questions to understand the profile of the respondents. A screening question was first provided to the respondents to ensure that they had prior experience with a green restaurant. The items pertaining to the study variables in the first section of the survey were measured by using a five-point Likert scale ranging from strongly disagree (1) to strongly agree (5).

The present research used a total of 37 items to measure the effect of green marketing mix practices on consumer behavior. Specifically, nine items were borrowed from prior research to assess green product practices related to menu items, use of sustainable materials, and packaging (Buenaventura et al., 2024; Jang et al., 2015; Khuong, 2023; Lee et al., 2020; Namkung and Jang, 2013). Green place was measured by scales adopted from previous studies and included eight questions pertaining to water conservation, energy efficiency, and sustainable design of the restaurant setting (Gupta et al., 2019; Jeong, 2014; Namkung and Jang, 2013; Wang et al., 2013). The three items in the study of Nguyen-Viet (2023) were used to evaluate green price practices. Finally, green promotion was measured based on the existing scales in the prior research and included questions regarding information dissemination related to sustainable practices (Buenaventura et al., 2024; Jang et al., 2011; Lo et al., 2017).

Four items adopted from the previous research of Jeong et al. (2014) were used for green brand image. The respondents were asked to rate the responsiveness and concern of the brand regarding sustainability issues. Specifically, the scale items were: (1) “The restaurant behaves in a socially conscious way”, (2) “The restaurant is very responsive to environmental issues”, (3) “The restaurant is concerned about the preservation of the environment”, (4) “The restaurant is not only concerned about the profit but also concerned about the environment and other consumers”. Last, five

items on the brand attachment scale were borrowed from the study of Jang et al. (2015): (1) “I am very attached to this restaurant”, (2) “I identify strongly with this restaurant”, (3) “Visiting this restaurant says a lot about who I am”, (4) “I feel a strong sense of belonging to this restaurant”, (5) “This restaurant means a lot to me”.

The self-administered structured questionnaire used in this present research was prepared in English. Since the study was conducted in Türkiye, the survey was also translated into Turkish. The translation was reviewed by three independent experts—two industry professionals (a restaurant manager and a culinary columnist) and one academic professor, all of whom are fluent in both Turkish and English—to ensure linguistic accuracy and contextual relevance. The survey questions are provided in Appendix A and Appendix B, respectively.

3.4 Data analysis

The current research used partial least squares structural equation modeling (PLS-SEM) to test the proposed hypotheses. PLS-SEM was selected due to its suitability in explanatory research and its ability to handle complex models, small sample sizes, and deviations from normality (Farooq et al., 2017; Hair et al., 2017).

In particular, the choice of PLS-SEM was further supported by the results of a multivariate normality test using Mardia’s (1970) coefficients of skewness and kurtosis, which indicated substantial violations of multivariate normality assumptions (multivariate skewness = 5.49, $p=0.000$); multivariate kurtosis = 67.76, $p=0.000$). The data analysis followed the two-step approach proposed by Anderson and Gerbing (1984), beginning with the assessment of the outer model (measurement model), followed by the evaluation of the inner model (structural model).

The first step was performed to evaluate the validity and reliability of the items and constructs. The outer model assessment was employed to judge the measurement quality by testing convergent validity and discriminant validity. The convergent validity was checked by calculating composite reliability, item loadings, and average variance extracted (AVE). On the other hand, discriminant validity was assessed by applying the Fornell–Larcker criteria, where the square root of AVE is compared against the correlation of the constructs (Hair et al., 2017). Moreover, the Heterotrait-Monotrait Ratio (HTMT) was also used to check discriminant validity due to the limitations of the Fornell–Larcker criteria.

After assessing the outer model for its appropriateness to proceed with the inner model, the second step involved testing the hypothesized relationships. The inner model was evaluated based on R^2 , path coefficients, and t-values. Mediation analysis was also employed to test the mediating role of brand image in the relationship between green marketing mix elements and green brand attachment. The analysis of the intermediate effect of brand image was performed by evaluating path coefficients, p-value, and variance accounted for (VAF). The strength of mediation was determined based on VAF scores (Hair et al., 2014).

CHAPTER 4

RESULTS

4.1 Demographic profile of the respondents

The demographic composition of the sample (N = 420) revealed a higher representation of female respondents (60.3%) compared to male respondents (39.5%). The age distribution of the respondents was concentrated among younger adults, with a notable prevalence of individuals in their thirties (49.3%). Regarding marital status, respondents were distributed almost equally between the groups of single and married, which represented 91.7% of the sample.

Regarding the educational level of respondents, the majority of the participants hold a four-year bachelor's degree (56%), followed by a master's degree, which accounts for 31.2% of the sample. This indicates a well-educated group that may be more attuned to environmental and sustainability-related issues. The income distribution shows a varied range; however, a significant share reported earnings above the national average, highlighting the presence of financially stable individuals within the respondent pool.

As summarized in Table 2, 52.4% of the respondents reported that they have experienced green restaurant dining for the first time, while 47.6% indicated that they have had a dining experience in environmentally conscious establishments more than one time. In terms of individual spending per person, the largest share of respondents (30.0%) reported spending between 2,000–2,500 TRY, followed by 1,500–2,000 TRY (28.1%) and more than 2,500 TRY (21.7%).

Table 1. Demographic Profile of the Respondents

Characteristics	Frequency	Percentage
Gender		
Male	166	39.5
Female	253	60.3
Non binary	1	0.2
Age		
18-29 years old	98	23.3
30-39 years old	207	49.3
40-49 years old	74	17.6
50-59 years old	26	6.2
60 and above	15	3.6
Marital Status		
Single	197	46.9
Married	188	44.8
Other	35	8.3
Education Level		
Less than high school	-	-
High School	9	2.1
Bachelor's Degree (2 Years)	15	3.6
Bachelor's Degree (4 Years)	235	56.0
Master's Degree	131	31.2
Doctoral Degree	30	7.1
Individual monthly net income		
Less than 20,000	10	2.4
20,000-40,000	46	11.0
40,000-60,000	58	13.8
60,000-80,000	87	20.7
80,000-100,000	82	19.5
Above 100,000	137	32.6

Table 2. Dining Characteristics of the Respondents

Characteristics	Frequency	Percentage
Green Dining Experience		
First	220	52.4
Repeat	200	47.6
Individual spending per person		
Less than 500 TRY	1	0.2
500-1000 TRY	4	1.0
1000-1500 TRY	80	19.0
1500-2000 TRY	118	28.1
2000-2500 TRY	126	30.0
More than 2500 TRY	91	21.7

4.2 Partial Least Squares Structural Equation Modeling analysis

The data analysis is structured around four main sections. First, the measurement model evaluation assesses the reliability and validity of the constructs used in the study. Second, the structural model evaluation examines the hypothesized relationships between constructs, including path coefficients, significance levels, and explanatory power. Third, the mediation analysis investigates the indirect effects of green marketing elements on brand attachment through brand image. Fourth, the VAF analysis assesses the magnitude of significance of the mediation effect within the structural model.

Table 3. Construct Information

Construct Name	Abbreviation
Green Product	GP
Green Place	GPlace
Green Price	GPrice
Green Promotion	GProm
Brand Image	BI
Brand Attachment	BA

4.2.1 Assessment of outer model

The outer (measurement) model was assessed to ensure the reliability and validity of the constructs before proceeding to the structural model analysis. This evaluation included tests for indicator reliability, internal consistency reliability, convergent validity, and discriminant validity.

Appendix D shows the results of the factor loadings for the measurement model assessment. Six items were removed due to low factor loadings (< 0.70). All other items demonstrated satisfactory loadings on their respective constructs, with values ranging from 0.724 to 0.959. These values exceed the recommended threshold of 0.708 (Hair et al., 2019).

Construct reliability was evaluated using both Cronbach's alpha and composite reliability (CR) measures. All constructs exceeded the threshold of 0.70, indicating strong internal consistency (Hair et al., 2019).

The rho_a values, which account for four indicator loadings and provide a more accurate reliability estimate than Cronbach's alpha (Dijkstra and Henseler,

2015), also showed strong reliability, with values ranging from 0.842(Green Place) to 0.944(Green Price).

Table 4. Reliability and Convergent Validity

Construct	Cronbach's alpha	Rho_a	CR	AVE
GP	0.883	0.887	0.911	0.632
GPlace	0.833	0.842	0.882	0.600
GPrice	0.942	0.944	0.963	0.897
GProm	0.891	0.891	0.915	0.605
BI	0.911	0.914	0.938	0.790
BA	0.937	0.940	0.952	0.799

Convergent validity was assessed through the Average Variance Extracted (AVE) for each construct. As shown in Table 4, all constructs exhibited AVE values well above the recommended threshold of 0.50 (Fornell and Larcker, 1981), with values ranging from 0.600 (Green Place) to 0.897(Green Price), thus confirming satisfactory convergent validity.

Discriminant validity was assessed by using two approaches: the Fornell-Larcker criterion and the Heterotrait-Monotrait Ratio (HTMT). The HTMT approach offers a more robust evaluation by avoiding some of the limitations associated with the Fornell-Larcker criterion (Henseler et al., 2015).

According to the Fornell-Larcker criterion, the square root of each construct's AVE should be greater than its correlation with other constructs. As presented in Table 5, the gray diagonal elements represent the square root of the AVE, which are greater than the corresponding off-diagonal elements that indicate the correlations

between constructs. According to Table 6, all HTMT values were below the conservative threshold of 0.90 (Hensler et al., 2015). Additionally, 95% confidence intervals for all values did not include the value of 1.00, further confirming discriminant validity.

Table 5. Discriminant Validity – Fornell-Larcker Criterion

	BA	BI	GP	GPlace	GPrice	GProm
BA	0.894					
BI	0.475	0.889				
GP	0.231	0.659	0.795			
GPlace	0.309	0.641	0.723	0.774		
GPrice	-0.070	0.134	0.216	0.245	0.947	
GProm	0.294	0.651	0.693	0.664	0.234	0.778

Table 6. Discriminant Validity – Heterotrait- Monotrait Ratio (HTMT)

	BA	BI	GP	GPlace	GPrice	GProm
BA						
BI	0.515					
GP	0.251	0.730				
GPlace	0.346	0.726	0.830			
GPrice	0.079	0.144	0.236	0.277		
GProm	0.317	0.719	0.779	0.764	0.256	

4.2.2 Assessment of inner model

After confirming the reliability and validity of the measurement model, the inner (structural) model was evaluated to test the hypothesized relationships among the constructs. This evaluation included assessments of collinearity, path coefficients, coefficient of determination (R^2), effect sizes (f^2), and predictive relevance. A bootstrapping procedure with 5,000 subsamples was employed in the evaluation of the structural model. The results of the structural model are presented in Figure 2 and Table 7.

Table 7. Direct Effects

Hypotheses	Direct effects	Coefficients (β)	f^2	T- Value	P- Value	VIF	Support
H1a	GP $\rightarrow$ BI	0.280	0.067	4.673	0.000	2.525	Yes
H1b	GPlace $\rightarrow$ BI	0.251	0.057	4.730	0.000	2.373	Yes
H1c	GPrice $\rightarrow$ BI	-0.059	0.007	1.434	0.151	1.075	No
H1d	GProm $\rightarrow$ BI	0.304	0.092	4.436	0.000	2.169	Yes
H2a	GP $\rightarrow$ BA	-0.204	0.021	2.705	0.007	2.693	Yes
H2b	GPlace $\rightarrow$ BA	0.130	0.009	1.786	0.074	2.509	No
H2c	Gprice $\rightarrow$ BA	-0.137	0.024	3.241	0.001	1.082	Yes
H2d	GProm $\rightarrow$ BA	0.047	0.001	0.747	0.455	2.368	No
H3	BI $\rightarrow$ BA	0.514	0.166	9.625	0.000	2.151	Yes

Before examining the path coefficients, multicollinearity among the predictor constructs was assessed using the variance inflation factor (VIF). For optimal model interpretation, VIF values should ideally not exceed 5; values exceeding this threshold suggest potential multicollinearity issues (Hair et al., 2019). As illustrated in Table 7 all VIF values for the structural model relationships were well below the

conservative threshold, with values ranging from 1.075 to 2,693. These results indicate that multicollinearity is not a concern in the current model, thereby ensuring the reliability and robustness of the estimated path coefficients. The coefficient of determination (R^2) was used to assess the model's explanatory power. According to Hair et al. (2019), R^2 values of 0.75, 0.50, and 0.25 are considered substantial, moderate, and weak, respectively. As shown in Figure 2, the model explained 53.5% of the variance in brand image ($R^2 = 0.535$) and 26.0% of the variance in brand Attachment ($R^2 = 0.260$). Therefore, the explanatory power for brand image can be classified as moderate, while the explanatory power for brand attachment is between weak and moderate.

Figure 2 demonstrates the path coefficients (β) and their significance of the direct relationships in the structural model. The results of the analysis revealed several significant relationships between constructs. Green product was found to have a significant positive effect on Brand Image ($\beta = 0.280$, $p < 0.001$), supporting Hypothesis 1a. Similarly, green place demonstrated a significant positive influence on brand image ($\beta = 0.251$, $p < 0.001$), thereby providing support for Hypothesis 1b. Among the green marketing elements, green promotion demonstrated the most substantial influence on brand image ($\beta = 0.304$, $p < 0.001$), further validating Hypothesis 1d. In contrast, green price did not have a statistically significant effect on brand image ($\beta = -0.059$, $p = 0.151$), thus failing to support Hypothesis 1c.

With regard to Brand attachment, the results were more complex. Green product exhibited a significant negative direct effect on brand attachment ($\beta = -0.204$, $p = 0.007$), which was contrary to expectations. Similarly, green price had a significant negative effect on brand attachment ($\beta = -0.137$, $p = 0.001$). On the other hand, neither green place ($\beta = 0.130$, $p = 0.074$) nor green promotion ($\beta = 0.047$, $p =$

0.455) was found to significantly influence brand attachment. Hence, the results did not confirm the proposed positive effect of green marketing mix elements on attachment to the brand, thereby failing to support hypotheses 2a,2b,2c,2d.

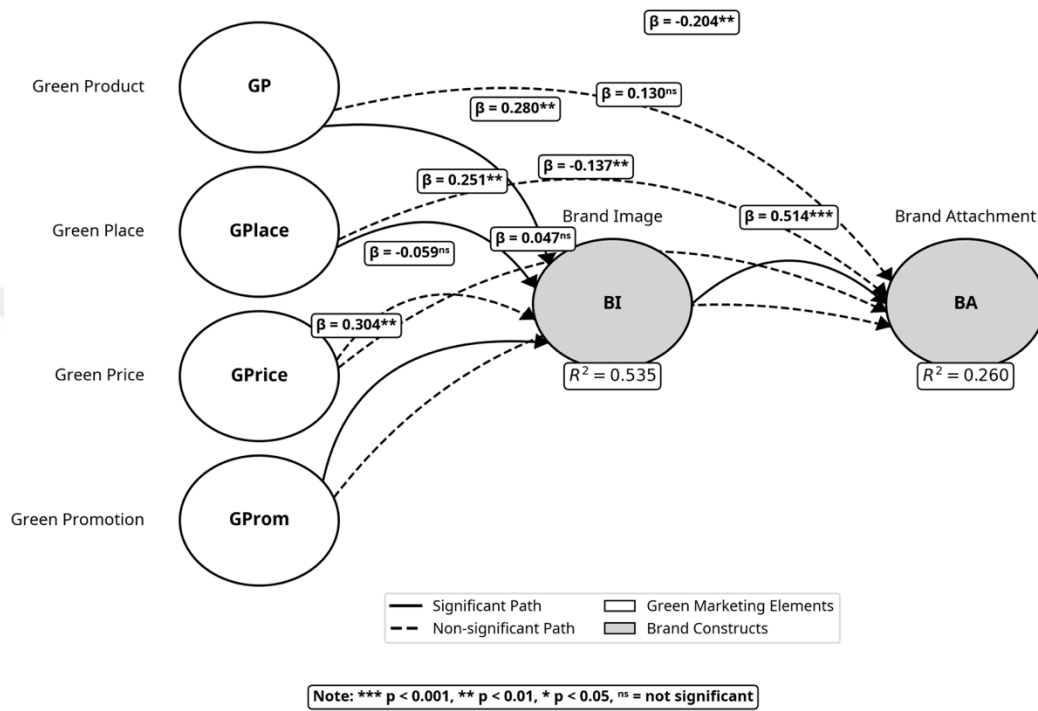


Figure 2. Structural Model

Finally, brand image was found to have a strong positive effect on brand attachment ($\beta = 0.514$, $p < 0.001$), confirming hypothesis 3.

4.2.3 Mediation analysis

Mediation analysis was conducted to examine the indirect effects of green marketing elements on brand attachment through brand image (Table 8). The findings indicated significant indirect effects for green product ($\beta = 0.144$, $p < 0.001$), green place ($\beta = 0.129$, $p < 0.001$), and green promotion ($\beta = 0.156$, $p < 0.001$) on brand attachment. Conversely, the indirect effect of green price on brand attachment was not

statistically significant ($\beta = -0.030$, $p = 0.160$). While these results provided support for Hypotheses 4a, 4b, and 4d, the study failed to validate H4c.

Table 8. Indirect Effects

Hypotheses	Effect	Coefficients (β)	T-Value	P-Value	Supported
H4a	GP $\rightarrow$ BI $\rightarrow$ BA	0.144	4.044	0.000	Yes
H4b	GPlace $\rightarrow$ BI $\rightarrow$ BA	0.129	3.982	0.000	Yes
H4c	GPrice $\rightarrow$ BI $\rightarrow$ BA	-0.030	1.405	0.160	No
H4d	GProm $\rightarrow$ BI $\rightarrow$ BA	0.156	4.318	0.000	Yes

The total effects (see Table 9), which combine direct and indirect effects, provide a comprehensive view of the overall influence of exogenous constructs on endogenous variables (Hair et al., 2022). According to the results, green place ($\beta = 0.259$, $p < 0.001$), green promotion ($\beta = 0.203$, $p = 0.001$), and brand image ($\beta = 0.514$, $p < 0.001$) exhibited significant positive total effects on brand attachment. As shown in Table 9, green price had a significant negative total effect on brand attachment ($\beta = -0.167$, $p < 0.001$), while the total effect of Green product on brand attachment was not significant ($\beta = -0.060$, $p = 0.416$).

Table 9. Total Effects

Effects	Coefficients (β)	T-Value	P-Value
GP $\rightarrow$ BA	-0.060	0.813	0.416
GPlace $\rightarrow$ BA	0.259	3.583	0.000
Gprice $\rightarrow$ BA	-0.167	3.545	0.000
GProm $\rightarrow$ BA	0.203	3.192	0.001
BI $\rightarrow$ BA	0.514	9.625	0.000

4.2.4 VAF analysis

To understand the nature of the mediation effects identified in the model, the Variance Accounted For (VAF) was calculated for each green marketing mix element that influenced brand attachment through brand image. VAF is a commonly used metric in mediation analysis within PLS-SEM, as it determines how much of the total impact of an independent variable on a dependent variable is conveyed through a mediating variable (Hair et al., 2019). The VAF is calculated using the following formula:

$$\text{VAF} = (\text{Indirect Effect} / \text{Total Effect}) \times 100$$

Hair et al. (2019) and Zhao et al. (2010) propose that a VAF below 20% reflects no mediation, values between 20% and 80% suggest partial mediation, values above 80% indicate full mediation, and mediation is deemed inconsistent when direct and indirect effects point in opposite directions.

As indicated in Table 11, green place (49,8%) and green promotion (76.9%) exhibit partial mediation through brand image, while green price demonstrates no significant mediation with a VAF (18.0%) below the threshold.

Table 10. VAF Analysis

Effect	Indirect Effect	Total Effect	VAF(%)	Mediation Type
GP → BI → BA	0.144	-0.060	N/A	Inconsistent Mediation
GPlace → BI → BA	0.129	0.259	49.8	Partial Mediation
GPrice → BI → BA	-0.030	-0.167	18.0	No Mediation
GProm → BI → BA	0.156	0.203	76.9	Partial Mediation

The relationship between green product practices and brand attachment demonstrates inconsistent mediation. Specifically, the direct effect of green product on brand attachment is negative and significant ($\beta = -0.204$, $p = 0.007$), while the indirect effect via brand image is positive and significant ($\beta = 0.144$, $p = 0.000$). The opposing signs of the direct and indirect effects confirm the presence of inconsistent mediation (Zhao et al., 2010).

This finding suggests that although certain green product practices may diminish customers' attachment, perhaps due to perceived trade-offs in taste, convenience, or price, they nonetheless enhance the brand's image, which indirectly boosts attachment. Thus, brand image plays a compensatory role, absorbing the potential negative impact of green product strategies and translating them into longer-term brand value.

CHAPTER 5

CONCLUSION

5.1 Discussions

This study investigated the influence of green marketing mix elements—green product, green place, green price, and green promotion—on green brand attachment in the restaurant industry, with green brand image as a mediating variable. As such, the present research analyzed both the direct and indirect effects of green marketing mix practices on green brand attachment. Drawing upon the S-O-R framework, a research model has been developed to test the proposed relationships. Specifically, green marketing mix elements were conceptualized as external stimuli influencing consumers' perception of green brand image as the organism, which further triggers the response of green brand attachment. Following the proposed model, thirteen hypotheses were developed and tested. The findings are presented in Table 11.

The results of this research revealed a complex relationship between green marketing mix elements and brand attachment. Specifically, green product practices were found to exert a negative direct effect on green brand attachment, thereby failing to provide support for Hypothesis 2a. This result may be attributed to consumers' skepticism toward greenwashing, where restaurants might be perceived as exploiting green narratives for marketing purposes without genuine sustainable practices (Delmas and Burbano, 2011). Another plausible explanation is the perceived trade-offs between sustainability and other value dimensions, such as portion size and price competitiveness. Consumers often associate organic or eco-labeled products with premium pricing, which can undermine attachment if not communicated effectively (Lee and Hong, 2016). Similarly, Kumar et al. (2021)

argued that when green product practices such as offering locally sourced or organic food are not clearly communicated or fail to meet the quality or taste expectations of consumers, they may weaken emotional bonds with consumers. The negative direct path from green product to attachment could also reflect the sustainability liability (Luchs et al., 2010), where underlying consumer concerns prevent the formation of immediate emotional bonding. Finally, green product features, especially in the restaurant industry, may not immediately foster emotional connections with diners unless they are linked to tangible, hedonic, or symbolic advantages (Basaran and Buyukyilmaz, 2015; Ryu et al., 2010).

Table 11. The Result of the Study

	Effects	Results
H1a	GP → BI	Supported
H1b	GPlace → BI	Supported
H1c	GPrice → BI	Not supported
H1d	GProm → BI	Supported
H2a	GP → BA	Not supported
H2b	GPlace → BA	Not supported
H2c	GPrice → BA	Not supported
H2d	GProm → BA	Not supported
H3	BI → BA	Supported
H4a	GP → BI → BA	Supported
H4b	GPlace → BI → BA	Supported
H4c	GPrice → BI → BA	Not supported
H4d	GProm → BI → BA	Supported

On the other hand, the findings provided support for Hypothesis 1a, which proposed that green products positively influence brand image. The positive relationship between these two constructs indicates that sustainable product offerings enhance the consumer's perception of the restaurant's environmental image, as emphasized by previous literature (Ko and Jeon, 2024; Namkung and Jang, 2013).

The results for Hypotheses 2b and 2d, which examined the direct effects of green place and green promotion practices on brand attachment, were not supported. Thus, these findings contradict with earlier studies that highlighted a positive relationship between green place activities and green attachment (DiPietro et al., 2013; Jang et al., 2015; Jeong and Jang, 2010; Schubert et al., 2010), as well as with the relationship between green promotion activities and brand attachment (Hanaysha, 2022; Lee and Hong, 2016). While Khuong et al. (2023)'s overall results revealed a positive correlation between green marketing practices and consumers' attachment to the restaurant, they observed that certain sustainable practices, such as the use of eco-friendly supplies, were not perceived by consumers as defining elements of green practices. Therefore, consumers cannot evaluate the application of environmentally friendly offerings as an important factor that can affect their attachment toward a restaurant.

These insights suggest that while green place and promotion practices may enhance a restaurant's sustainability image, they are not always effective in cultivating brand attachment, particularly when such efforts are not directly experienced or noticed by consumers. This perspective also helps explain the findings for Hypotheses 1b and 1d, where green place and green promotion had significant effects on brand image. In line with prior research by Namkung and Jang (2013), although environmentally focused practices can enhance consumers'

perceptions of a restaurant's green image and influence behavioral intentions, they may fall short in driving affective outcomes like brand attachment. That is, when sustainability efforts are perceived as authentic, visible, and value-aligned with consumers' expectations, they may translate into emotional connections with the brand.

Finally, regarding the direct effect of green price on green brand image and attachment, the results showed that while green price negatively influences the green brand attachment of restaurant guests, its effect on brand image is insignificant. This finding may reflect consumers' heightened sensitivity to price in emerging markets such as Türkiye, where perceptions of price fairness significantly influence purchasing behavior. Additionally, another plausible explanation may be consumer skepticism toward green pricing strategies since firms' greenwashing practices represent a growing concern in society (Montero-Navarro et al., 2021; Nugraha et al., 2024; Rahman et al., 2015). When consumers suspect that environmental claims are used to justify higher prices without corresponding value, their trust in the brand may diminish (Kumar et al., 2021). Furthermore, in the restaurant context, where affordability, convenience, and quality are often prioritized, price premiums for green offerings can be met with resistance, especially if these offerings do not demonstrably enhance the overall dining experience. If the perceived value fails to align with increased prices, this discrepancy may prevent the formation of emotional bonds with the brand. As Keller and Lehmann (2006) argue, price must not only be justified by product attributes but also perceived as contributing to the broader brand experience; otherwise, it may serve as a barrier to building brand loyalty and attachment.

This study also provided support for Hypothesis 3, which proposed a positive relationship between brand image and brand attachment. The finding is also consistent with previous literature suggesting that a favorable brand image plays a critical role in shaping consumers' attachment to a brand (Park et al., 2010; Thomson et al., 2005). A strong and positive brand image not only enhances consumers' affective evaluations but also fosters a sense of pride and identification with the brand. These affective connections are further reinforced through repeated and consistent brand experiences, which contribute to the development of deeper emotional attachment over time.

This process aligns with the attachment theory (Bowlby, 1982), which conceptualizes emotional bonds with brands as similar to interpersonal attachments, wherein the brand functions as a secure base. Additionally, the cognitive-affective dimensions of brand image facilitate alignment between the consumer's self-concept and brand identity. Such alignment enhances brand attachment through mechanisms like self-congruity (Sirgy, 1982) and value congruence (Edwards and Cable, 2009), where the brand becomes a meaningful extension of the consumer's values and identity. Together, these dynamics underscore the mediating role of brand image in translating green marketing cues into enduring emotional connections with brands.

In addition to the direct effects of green marketing mix elements on brand image and attachment, this study also analyzed the indirect effects of green marketing mix elements on consumers' attachment to the brand. The results for the mediating role of brand image in the relation between green marketing mix elements and brand attachment provided partial support for the mediation model. Specifically, the findings confirmed Hypotheses 4a, 4b, and 4d for the significant indirect effect of green product, place, and promotion. That is, when diners perceive green practices in

product offerings, spatial design, and promotional communications as credible and aligned with sustainability values, they form a favorable brand image, which, in turn, strengthens their emotional connection to the brand.

In contrast, this study did not evidence the indirect effect of green price through brand image, thereby failing to support Hypothesis H4c. This result implies that when green pricing strategies are not perceived as fair or justifiable, they may not effectively foster a positive brand image or emotional bonding with the brand. Overall, the mediation analysis affirms the pivotal role of brand image as a psychological mechanism through which green marketing practices influence brand-related outcomes. It highlights that tangible and visible green efforts, when effectively communicated and perceived, can enhance brand perception and attachment, whereas less visible or cost-driven initiatives may require additional consumer education or transparency to achieve similar effects.

5.2 Theoretical implications

From a theoretical perspective, this study contributes to the sustainable marketing literature in the hospitality industry in various ways. First, by integrating the S-O-R model by Mehrabian and Russel (1974) into the green restaurant context, this research advances the understanding of how environmentally friendly marketing practices (stimuli) influence consumers' internal evaluations (organism) and behavioral outcomes (response). Specifically, the adaptation of green marketing mix elements – namely, green product, green place, green price, and green promotion - as environmental stimuli represents a novel extension of the S-O-R model into sustainability-focused consumer contexts. Unlike conventional marketing stimuli,

green marketing elements activate consumers' environmental consciousness and values, creating more complex pathways to brand attachment.

This theoretical extension is in line with the work of Dangelico and Vocalelli, (2017), who call for more dynamic and integrative frameworks that can capture the multidimensional nature of consumer responses to sustainability initiatives. By positioning brand image as an organismic mediator, this research further refines the S-O-R framework and enhances the explanatory power of sustainability-driven branding research. In doing so, it responds to the need for more integrated and context-sensitive theoretical models in consumer behavior as highlighted by Papadas et al. (2017), who emphasize the interaction of various green marketing components in shaping consumer perceptions.

Additionally, this study reveals the differential effects of various green marketing element practices on brand attachment, with some elements operating primarily through brand image while others have direct effects. Hence, it challenges the assumption that all green marketing element programs necessarily translate into positive consumer-brand engagement interactions. Instead, the present study underscores the flexibility of the S-O-R framework, demonstrating its ability to accommodate complex relationships between stimuli, organism, and response within the green marketing domain. Thus, this research not only refines the theoretical relevance of the S-O-R model but also extends its applicability to green marketing in the tourism and hospitality industry.

Second, this study enriches the growing literature on the green marketing mix (Chen, 2009; Chen, 2010) by empirically examining green product, green place, green price, and green promotion simultaneously, an approach that previous studies have often neglected. While prior studies have tended to focus on one or two

elements, this study illuminates the interactive nature of the green marketing mix and its collective impact on brand-related outcomes. Hence, the current research answers the call of Kumar et al. (2021), who emphasize the need for integrated approaches to green marketing to fully capture their effects on consumer perceptions and brand experience. By empirically testing the relationships between various green marketing elements and consumer behavior, this study offers a more comprehensive understanding of the brand experience within sustainability-driven contexts.

This contribution also supports the perspectives of Brakus et al. (2009), who argue that consumer experience is shaped by the consistency and integration of brand touchpoints. Conceptualizing brand experience as a cumulative process involving multiple touchpoints, this research recognizes that certain elements may primarily shape perceptual aspects of the experience (brand image) without necessarily triggering the emotional responses required for attachment.

Additionally, the findings affirm that green marketing practices, when examined holistically, offer a more comprehensive understanding of how consumers form emotional bonds with brands. This aligns with the holistic marketing concept (Kotler and Keller, 2016), which posits that every marketing action should collectively contribute to a unified brand message. By recognizing that consistency across all green marketing touchpoints fosters consumer trust and reduces green skepticism, this study highlights a key theoretical tenet for building resilient green brands.

Third, this research extends attachment theory (Bowlby, 1969) by identifying brand image as an antecedent to brand attachment in the context of green marketing. The findings of the research suggest that green marketing elements influence brand attachment primarily by enhancing perceptions of the brand as genuinely committed

to environmental values. In theoretical terms, these findings underscore that attachment to a brand does not solely arise from marketing actions but rather from the meaning and associations that these actions create. The mediating role of brand image in this process reaffirms its importance as a central construct in the hierarchy of effects.

This research also contributes to consumer behavior theory by identifying potential pitfalls in green marketing strategies. For example, pushing a product's features without cultivating a positive brand narrative can have unintended negative consequences, undermining the effectiveness of sustainability practices. This aligns with the works of Kan et al. (2022) and Yang and Chai (2022), who emphasize that effective green marketing requires not only tangible sustainability efforts but also clear communication of the brand's values to foster consumer trust and loyalty.

Lastly, the findings complement the S-O-R paradigm by demonstrating that direct stimulus-response paths may be weak or negative if the organism is not sufficiently engaged. This further reinforces the framework's assertion that internal states mediate behavioral responses. In this context, the study underscores the importance of brand meaning and consumer perceptions in transforming neutral attributes into emotionally meaningful consumer-brand connections, supporting the idea that the success of green marketing practices depends not only on the sustainability efforts themselves but also on how these efforts are perceived and internalized by consumers.

5.3 Practical implications

The empirical findings of this study yield significant implications for tourism and hospitality practitioners aiming to leverage sustainability as a strategic differentiator.

A key implication is the vital role of brand image as a mediator that transforms green initiatives into meaningful consumer relationships. This pathway highlights the necessity of fostering authentic, credible sustainability perceptions among target audiences.

Restaurant managers should consider sustainability not just as an operational concern but as an essential element in shaping the brand identity. The development of a positive green brand image requires diligent attention to the alignment between environmental initiatives and core brand values. When green practices appear disconnected from the broader brand narrative, consumers may perceive such efforts as superficial, potentially undermining brand credibility.

Modern consumers are becoming more skilled at identifying the differences between genuine environmental efforts and superficial sustainability actions (Delmas and Burbano, 2011). Therefore, restaurant managers should prioritize transparency in communicating sustainability initiatives by providing specific information about their practices. For instance, instead of employing vague claims of sustainability, restaurants could communicate specific achievements, such as reductions in carbon emissions, waste management improvements, and the proportion of locally sourced organic ingredients. The development of a sustainable brand image requires consistent manifestation across all consumer touchpoints, ranging from digital communications to physical service encounters. This consistency enhances the cognitive-affective processes through which consumers develop emotional attachments to brands.

Environmental features within the physical service-scape, such as sustainable decoration, fresh air, and energy- and water-efficient systems, may not be immediately evident to consumers unless deliberately highlighted. To address this

challenge, restaurant managers might consider implementing interpretive elements that enhance the visibility and experiential salience of environmental features. Additionally, managers should recognize the potential synergies between different green marketing components. For instance, green promotion tactics can be strategically utilized to boost the visibility and perceived value of green product and green place initiatives. This holistic approach recognizes the interconnected nature of successful green marketing.

The negative result for the relationship between green pricing and brand attachment presents particularly significant implications for pricing strategies in the industry. Restaurant managers should adopt a careful and strategic approach when considering sustainability-based price premiums. When implementing price increases associated with environmental initiatives, managers must ensure that these premiums are accompanied by noticeable enhancements in experiential quality or are framed through compelling value narratives. Failing to establish clear value propositions may trigger skepticism regarding the authenticity of environmental commitments, potentially undermining brand attachment formation.

The development of effective value communication strategies is a critical necessity for managers in the context of sustainability. Rather than presenting environmental attributes as abstract ethical considerations, managers might emphasize the concrete personal benefits associated with sustainable consumption, such as enhanced food quality, health advantages, or unique experiential elements. This benefit-oriented framing potentially mitigates price sensitivity by establishing clear value equivalence for premium pricing.

Perhaps the most fundamental practical implication emerging from this study concerns the necessity of holistic strategic integration in green marketing. Rather

than implementing isolated green initiatives, managers should develop comprehensive sustainability orientations that spread across all aspects of organizational operations and identity. The implementation of such comprehensive approaches necessitates cross-functional collaborations within the organization. Marketing departments must work closely with supply chain management, operations, and human resources to ensure that green commitments are consistently reflected throughout all activities and consumer interactions.

5.4 Limitations

This study is subject to certain limitations that present opportunities for future research. First, the present research primarily relied on data collected from Turkish restaurant guests in Türkiye. Hence, the sample limits the generalizability of the results since consumer behavior towards sustainability may vary significantly across different cultural, economic, and regional contexts (Trudel, 2019). Second, the current research was conducted in the restaurant industry, which represents one of the sub-sectors of hospitality and tourism businesses. As such, future research can extend the proposed model to different contexts, including various nations and sectors of the tourism industry, to provide richer theoretical and practical insights that capture a broader spectrum of consumer behavior. Third, this study is a cross-sectional study that collected and analyzed the data at a single point in time. As such, future studies can benefit from longitudinal investigations, which may examine how sustainability perceptions and brand relationships evolve over time, potentially identifying critical developmental stages and intervention points. Additionally, this research examined consumer attitudes and behaviors through self-reported surveys. Hence, it is possible that social desirability bias may have influenced respondents'

answers, particularly regarding environmentally sustainable practices. Consumers may have over-reported their support for green initiatives due to the perceived social value of sustainability. Future studies could incorporate behavioral data or experimental methods to complement survey results, offering a more objective measure of consumer engagement with sustainability.

Another limitation of this study is its assumption regarding consumer knowledge about sustainability. While this study presupposes a baseline level of awareness regarding sustainability practices among participants, the actual depth of consumers' understanding may differ significantly. Consumers' awareness and understanding of the environmental advantages associated with green practices play an important role in shaping their attitudes and purchasing behaviors toward environmentally friendly products (Joshi and Rahman, 2015).

The sample of this study was demographically skewed toward higher income groups. This income-based homogeneity may affect the generalizability of the results. Consumers from more moderate income brackets might respond differently to green initiatives or evaluate their value through a different lens. Future research should involve a more diverse sample to examine variations in consumers' brand perceptions and their attachment to green restaurants.

In this study, green restaurants were identified by consumers based on their involvement in green practices. However, the actual compliance of these restaurants with established sustainability standards may have varied, introducing an additional limitation. Future research should consider focusing exclusively on eco-labeled restaurants to ensure consistency with formal sustainability criteria and to provide a deeper understanding of how green marketing mix programs influence consumer behavior.

Lastly, future research might explore the role of green skepticism in shaping consumer responses to sustainability initiatives. Green skepticism, which is defined as the degree of consumer distrust toward sustainability claims, has become a significant factor influencing the effectiveness of green marketing strategies (Delmas and Burbano, 2011). Integrating green skepticism as a moderator into the conceptual framework would provide a valuable contribution to both theory and practice.

In conclusion, addressing these limitations in future research would facilitate a deeper and more nuanced understanding of how the practices of green marketing mix elements influence brands' image and attachment in the restaurant industry.

APPENDIX A

QUESTIONNAIRE IN ENGLISH

This study is part of the master's thesis titled "The Effects of Green Marketing Mix Programs on Brand Attachment" conducted by Ulviyya Jahangir, a student of Boğaziçi University, Sustainable Tourism Management Department. The aim of this study is to examine how environmentally friendly practices are observed in food and beverage establishments within the scope of the green marketing mix. Additionally, it seeks to investigate how these practices contribute to the formation of a green brand image and influence brand attachment.

To support this study, please dedicate less than 10 minutes to completing the questionnaire based on your personal experiences at a green food and beverage establishment you have previously visited. Your participation is greatly valued and will contribute to a deeper understanding of sustainability-driven brand perceptions in the hospitality sector.

Participants' responses will be kept anonymous, and the collected data will be used for scientific research purposes.

Screening Question

Have you dined at a restaurant that incorporates green practices?

____ Yes

____ No

If your answer is yes, please respond to the following questions based on your most recent experience.

Is this your first visit to this restaurant?

___ Yes

___ No

Please indicate the amount you spent at the restaurant during your visit.

___ Less than 500 TL

___ 500 -1500 TL

___ 1,500-2,000 TL

___ 2,000-2,500 TL

___ More than 2,500 TL

Please answer the following questions based on your most recent dining experience at this restaurant. Indicate your agreement or disagreement on the following statements using the scale below, where '1' means strongly disagree and '5' means strongly agree.

Green Product

The following questions pertain to the restaurant's green product practices. Please respond based on your most recent experience.

1. The restaurant serves healthy and fresh menu choices.
2. The restaurant uses locally grown ingredients.
3. The restaurant uses organic and sustainably produced foods.
4. The restaurant uses take-out containers that are biodegradable or recyclable.

5. The restaurant implements strict portion control measures to ensure customers get the right amount of food.
6. The restaurant uses environmentally friendly materials.
7. The restaurant serves drinking water only upon request.
8. The restaurant avoids genetically modified foods.
9. The restaurant offers organic food on the menu.

Green Place

The following questions relate to the restaurant's green place practices. Please respond based on your most recent experience.

1. The restaurant uses water-efficient equipment.
2. The restaurant uses energy-efficient equipment.
3. The restaurant uses motion sensors to minimize energy consumption.
4. The restaurant controls air quality (no smoke smell or other odors in the restaurant).
5. The restaurant uses sunlight as natural lighting.
6. The restaurant maintains a comfortable temperature.
7. The restaurant uses natural plants for decoration.
8. The restaurant uses refillable dispensers.

Green Price

The following questions pertain to the restaurant's green price practices. Please respond based on your most recent experience.

1. The restaurant usually charges more for its environmentally friendly products.
2. Green products that are made by this restaurant are more expensive than non-green alternatives.

3. I must pay more to purchase the environmentally friendly products that are made by this restaurant.

Green Promotion

The following questions relate to the restaurant's green promotion practices. Please respond based on your most recent experience.

1. The restaurant shares its sustainability journey through social media and marketing campaigns.
2. The restaurant clearly communicates its sustainability efforts on its menu.
3. The restaurant provides educational materials on sustainability and sourcing practices.
4. The restaurant offers a "farm-to-table" menu that highlights locally sourced ingredients.
5. The restaurant provides information on the ingredients of menu items.
6. The restaurant provides carbon footprint information for individual menu items.
7. The restaurant advertises its eco-friendly products by eco-labeling its products.
8. The restaurant promotes its green achievements and credentials.

Green Brand Image

Considering your latest experience, how would you assess the brand image of this restaurant?

1. The restaurant behaves in a socially conscious way.
2. The restaurant is very responsive to environmental issues.
3. The restaurant is concerned about the preservation of the environment.

4. The restaurant is not only concerned about profit, but also about the environment and other consumers.

Green Brand Attachment

Please answer the following questions based on your most recent experience.

1. I am very attached to this restaurant.
2. I identify strongly with this restaurant.
3. Visiting this restaurant says a lot about who I am.
4. I feel a strong sense of belonging to this restaurant.
5. This restaurant means a lot to me.

Demographic Questions

Gender

___Male

___Female

___Non-binary

Age

___18-29 years old

___30-39 years old

___40-49 years old

___50-59 years old

___60 and above

Marital Status

___Single

____Married

____Other

Level of Education

____Less than high school

____High school

____University Degree (2 Years)

____University Degree (4 Years)

____Master's Degree

____Doctoral Degree

Individual monthly net income

____Less than 20,000 TRY

____20,000-40,000 TRY

____40,000-60,000 TRY

____60,000-80,000 TRY

____80,000-100,000 TRY

____Above 100,000 TRY

APPENDIX B

QUESTIONNAIRE IN TURKISH

Bu çalışma, Boğaziçi Üniversitesi Sürdürülebilir Turizm Yönetimi Bölümü yüksek lisans öğrencisi Ulviyya Jahangir tarafından yürütülen "Yeşil Pazarlama Karması Unsurlarının Marka Bağlılığı Üzerindeki Etkileri" başlıklı yüksek lisans tezinin bir parçası olarak gerçekleştirilmektedir.

Bu araştırmanın temel amacı, yeşil pazarlama karması kapsamında gıda ve içecek işletmelerinde gözlemlenebilen çevre dostu ve sürdürülebilir uygulamaları incelemektir. Ayrıca, bu uygulamaların yeşil marka imajının oluşumuna ve marka bağlılığına nasıl katkıda bulunduğunu araştırmayı hedeflemektedir.

Bu araştırmaya destek olmak amacıyla, 10 dakikanızı ayırarak son ziyaret ettiğiniz bir yiyecek ve içecek işletmesindeki deneyiminize istinaden ankette yer alan soruları yanıtlamanızı rica ediyoruz. Katılımınız araştırmamıza önemli katkılar sağlayacaktır.

Katılımcıların yanıtları anonim tutulacak ve elde edilen veriler yalnızca bilimsel araştırma amacıyla kullanılacaktır.

Eleme Sorusu

Sürdürülebilir yeşil uygulamalar (örn. sürdürülebilir tedarik, organik menü, atık azaltımı, enerji verimliliği) benimseyen bir restoranda yemek yediniz mi?

____Evet

____Hayır

Eğer cevabınız evet ise lütfen aşağıdaki soruları en son deneyiminize göre cevaplayın.

Bu restorana ilk ziyaretiniz mi?

____Evet

____Hayır

Gitmiş olduğunuz bu restorandaki harcama tutarını belirtiniz.

____500 TL'den az

____500 -1500 TL

____1,500-2,000 TL

____2,000-2,500 TL

____2,500 TL'den fazla

Lütfen ziyaret ettiğiniz yeşil restorandaki en son deneyiminizi düşünerek, her bir soru için görüşünüzü Kesinlikle Katılmıyorum '1' ve Kesinlikle Katılıyorum '5' aralığında aşağıdaki ölçeğe göre belirtiniz.

Yeşil ürün

Aşağıdaki sorular, restoranın sunduğu yeşil ürünlere yönelik olacaktır. Lütfen soruları, en son deneyiminizi göz önünde bulundurarak yanıtlayınız.

1. Restoran, sağlıklı ve taze menü seçenekleri sunmaktadır.
2. Restoran, yerel olarak yetiştirilen malzemeleri kullanmaktadır.
3. Restoran, organik ve sürdürülebilir şekilde üretilen gıdaları tercih etmektedir.

4. Restoran, biyolojik olarak parçalanabilir veya geri dönüştürülebilir paket servis kapları kullanmaktadır.
5. Restoranda sunulan yemeklerin porsiyon büyüklüğü sağlıklı beslenme için uygundur.
6. Restoran, çevre dostu malzemeler kullanmaktadır.
7. Restoran, yalnızca talep üzerine içme suyu servis etmektedir.
8. Restoran, genetiği değiştirilmiş gıdalardan kaçınmaktadır.
9. Restoran, menüsünde organik yiyecek seçenekleri sunmaktadır.

Yeşil mekân

Aşağıdaki sorular, restoranın sunduğu yeşil mekan uygulamalarına yönelik olacaktır. Lütfen soruları, en son deneyiminizi göz önünde bulundurarak yanıtlayınız.

1. Restoran, su tasarruflu ekipmanlar (sensörlü musluklar) kullanmaktadır.
2. Restoran, enerji verimli ekipmanlar kullanmaktadır.
3. Restoran, enerji tüketimini en aza indirmek için hareket sensörlü aydınlatmalar kullanmaktadır.
4. Restoran, hava kalitesini kontrol etmektedir (içeride sigara kokusu veya diğer rahatsız edici kokular bulunmamaktadır).
5. Restoran, konforlu bir sıcaklık seviyesini korumaktadır.
6. Restoran, doğal aydınlatma sağlamak amacıyla güneş ışığını kullanmaktadır.
7. Restoran, konforlu bir sıcaklık seviyesini korumaktadır.
8. Restoran, dekorasyon amacıyla doğal bitkiler kullanmaktadır.
9. Restoran, yeniden doldurulabilir sıvı sabunluklar kullanmaktadır.

Yeşil fiyatlandırma

Aşağıdaki sorular, restoranın uyguladığı yeşil fiyatlandırmalara yönelik olacaktır. Lütfen soruları, en son deneyiminizi göz önünde bulundurarak yanıtlayınız.

1. Restoran genellikle çevre dostu ürünleri için daha yüksek ücret talep etmektedir.
2. Bu restoran tarafından üretilen yeşil ürünler, yeşil olmayan alternatiflere kıyasla daha pahalıdır.
3. Bu restoranın ürettiği çevre dostu ürünleri satın almak için daha fazla ödeme yapmam gerekmektedir.

Yeşil promosyon

Aşağıdaki sorular, restoranın uyguladığı yeşil promosyonlara yönelik olacaktır.

Lütfen soruları, en son deneyiminizi göz önünde bulundurarak yanıtlayınız.

1. Restoran, sürdürülebilirlik yolculuğunu sosyal medya ve pazarlama kampanyaları aracılığıyla paylaşmaktadır.
2. Restoran, sürdürülebilirlik çabalarını menüsünde açık bir şekilde ifade etmektedir.
3. Restoran, sürdürülebilirlik ve tedarik uygulamaları hakkında eğitici materyaller sağlamaktadır.
4. Restoran, yerel olarak temin edilen malzemeleri öne çıkaran bir menü sunmaktadır.
5. Restoran, menüdeki ürünlerin içerikleri hakkında bilgi sağlamaktadır.
6. Restoran, bireysel menü öğeleri için karbon ayak izi bilgisi sunmaktadır.
7. Restoran, çevre dostu ürünlerini eko-etiketleme yöntemiyle tanıtmaktadır.
8. Restoran, çevre dostu başarılarını ve sertifikalarını görünür kılmaktadır.

Yeşil Marka imajı

Son deneyiminiz dikkate alındığında, bu restoranın marka imajı hakkında ne düşünüyorsunuz?

1. Restoran, sosyal açıdan bilinçli bir şekilde hareket etmektedir.

2. Restoran, çevresel konulara karşı oldukça duyarlıdır.
3. Restoran, çevrenin korunmasına önem vermektedir.
4. Restoran yalnızca kâr odaklı değil, aynı zamanda çevreyi ve diğer tüketicileri de gözetmektedir.

Yeşil Marka bağlılığı

Son deneyiminiz dikkate alarak soruları yanıtlayınız.

1. Bu restorana çok bağlıyım.
2. Bu restorana karşı güçlü bir aidiyet duygusu hissediyorum.
3. Bu restorana gitmek, kim olduğum hakkında çok şey ifade ediyor.
4. Kendimi bu restoranla güçlü bir şekilde özdeşleştiriyorum
5. Bu restoran benim için büyük bir anlam taşıyor.

Demografik Sorular

Cinsiyet

___Erkek

___Kadın

___Non binary

Yaş

___18–29 yaş

___30–39 yaş

___40–49 yaş

___50–59 yaş

___60 yaş ve üzeri

Eğitim Düzeyi

- ☐ Lise altı
- ☐ Lise
- ☐ Ön lisans
- ☐ Lisans
- ☐ Yüksek lisans
- ☐ Doktora

Medeni Durum

- ☐ Bekar
- ☐ Evli
- ☐ Diğer

Bireysel Aylık Net Gelir (TL)

- ☐ 20.000 TL'den az
- ☐ 20.000–40.000 TL
- ☐ 40.000–60.000 TL
- ☐ 60.000–80.000 TL
- ☐ 80.000–100.000 TL
- ☐ 100.000 TL'den fazla

APPENDIX C

THE ETHICS COMMITTEE APPROVAL



T.C.
BOĞAZİÇİ ÜNİVERSİTESİ REKTÖRLÜĞÜ
Sosyal ve Beşeri Bilimler İnsan Araştırmaları Etik Kurulu (SBİNAREK)



Sayı : E-84391427-050.01.04-154587
Konu : 2023-04T Kayıt Numaralı Başvurunuz
Hakkında

21.11.2023

Sayın Doç. Dr. Ezgi ERKMEN

Tez danışmanlığımı yürüttüğünüz öğrenciniz Ulviyya Jahangir'in "The effect of green marketing practices on consumers' brand relationship in the restaurant industry" başlıklı projesi ile Boğaziçi Üniversitesi Sosyal ve Beşeri Bilimler İnsan Araştırmaları Etik Kurulu (SBİNAREK)'e yaptığımız 2023-04T kayıt numaralı başvurunuz 20.11.2023 tarih ve 2023/09 sayılı kurul toplantısında incelenmiş ve projenize etik onay verilmesi uygun bulunmuştur.

Bu karar tüm üyelerin toplantıya on-line olarak katılımıyla ve oybirliği ile alınmıştır. Onay mektubu tüm üyeler adına Komisyon Başkanı tarafından e-imzalanmıştır. Bilgilerinizi rica ederiz.

Saygılarımızla,

Dr. Öğr. Üyesi İşıl Erdiyan
Kurul Başkanı

Bu belge, güvenli elektronik imza ile imzalanmıştır.

Belge Doğrulama Kodu : 018G-PL1B-0A85 Belge Doğrulama Adresi : <https://www.turkiye.gov.tr/bogazici-universitesi-ebys>

APPENDIX D

STANDARDIZED LOADINGS

Constructs/Measurement items	Loadings
Green Product (GP)	
The restaurant serves healthy and fresh menu choices. (GP1)	0.825
The restaurant uses locally grown ingredients. (GP2)	0.771
The restaurant uses organic and sustainably produced foods. (GP3)	0.831
The restaurant uses take-out containers that are biodegradable or recyclable. (GP4)	-
The restaurant implements strict portion control measures to ensure customers get the right amount of food. (GP5)	0.735
The restaurant uses environmentally friendly materials. (GP6)	0.801
The restaurant serves drinking water only upon request. (GP7)	-
The restaurant avoids genetically modified foods. (GP8)	-
The restaurant offers organic food on the menu. (GP9)	0.803
Green Place (GPlace)	
The restaurant uses water-efficient equipment. (GPlace1)	0.744
The restaurant uses energy-efficient equipment. (GPlace2)	0.814
The restaurant uses motion sensors to minimize energy consumption. (GPlace3)	-
The restaurant controls air quality (no smoke smell or other odors in restaurant). (GPlace4)	0.777
The restaurant uses sunlight as natural lighting. (GPlace5)	0.724
The restaurant maintains a comfortable temperature. (GPlace6)	0.810
The restaurant uses natural plants for decoration. (GPlace7)	-
The restaurant uses refillable dispensers. (GPlace8)	-
Green Price (GPrice)	
The restaurant usually charges more for its environmentally friendly products. (GPrice1)	0.934

Green products that are made by this restaurant are more expensive than non-green alternatives. (GPrice2)	0.947
I must pay more to purchase the environmentally friendly products that are made by this restaurant. (GPrice3)	0.959
Green Promotion (GProm)	
The restaurant shares its sustainability journey through social media and marketing campaigns. (GProm1)	0.749
The restaurant clearly communicates its sustainability efforts on its menu. (GProm2)	0.824
The restaurant provides educational materials on sustainability and sourcing practices. (GProm3)	0.766
The restaurant offers a “farm-to-table” menu that highlights locally sourced ingredients. (GProm4)	0.797
The restaurant provides information on ingredients of menu items. (GProm5)	0.754
The restaurant provides carbon footprint information for individual menu items. (GProm6)	-
The restaurant advertises its eco-friendly products by eco-labeling its products. (GProm7)	0.738
The restaurant promotes its green achievements and credentials. (GProm8)	0.813
Brand Image (BI)	
The restaurant behaves in a socially conscious way. (BI1)	0.887
The restaurant is very responsive to environmental issues. (BI2)	0.918
The restaurant is concerned about the preservation of the environment. (BI3)	0.916
The restaurant is not only concerned about profit, but also about the environment and other consumers. (BI4)	0.831
Brand Attachment (BA)	
I am very attached to this restaurant. (BA1)	0.861
I identify strongly with this restaurant. (BA2)	0.926
Visiting this restaurant says a lot about who I am. (BA3)	0.869
I feel a strong sense of belonging to this restaurant. (BA4)	0.914
This restaurant means a lot to me. (BA5)	0.898

REFERENCES

- Aaker, D. A. (1991). *Managing brand equity: capitalizing on the value of a brand name*. The Free Press.
- Aaker, D. A. (1996). Measuring brand equity across products and markets. *California Management Review*, 38(3), 102-120.
- Abdullah, M. A. F., & Tarmizi, A. (2024). The Impact of The Green Marketing Mix strategy on consumer purchasing decisions at KFC Fast Food Restaurants. *Siber Journal of Advanced Multidisciplinary*, 2(1), 68-77.
- Agustini, M., Baloran, A., Bagano, A., Tan, A., Athanasius, S., & Retnawati, B. (2021). Green marketing practices and issues: A comparative study of selected firms in Indonesia and Philippines. *Journal of Asia-Pacific Business*, 22(3), 164-181.
- Agyeman, C. M. (2014). Consumers' buying behavior towards green products: An exploratory study. *International Journal of Management Research and Business Strategy*, 3(1), 188-197.
- Ahmed, R. R., Streimikiene, D., Qadir, H., & Streimikis, J. (2023). Effect of green marketing mix, green customer value, and attitude on green purchase intention: Evidence from the USA. *Environmental Science and Pollution Research*, 30(5), 11473-11495.
- Ainsworth, M. D. S. (1978). The Bowlby-Ainsworth attachment theory. *Behavioral and Brain Sciences*, 1(3), 436-438.
- Ajzen, I. (1985). From intentions to actions: A theory of planned behavior. In J. Kuhl & J. Beckmann (Eds.), *Action control: From cognition to behavior* (pp. 11-39). Berlin, Springer. https://doi.org/10.1007/978-3-642-69746-3_2
- Aly, Y. (2023). The Role of Green marketing in improving the hotel's image and enhancing loyalty: from the customer's perspective. *Journal of Association of Arab Universities for Tourism and Hospitality*, 25(1), 208-226.
- American Marketing Association. (1960). *Marketing definitions: A glossary of marketing terms*. American Marketing Association.
- An, T. V. (2022). *The importance of takeout food packaging* (Bachelor Thesis, Vaasan Ammattikorkeakoulu University of Applied Sciences). <https://www.theseus.fi/bitstream/handle/10024/783612/Thesis%20Final%20Ann%20Tran%20-%20e1900702.pdf?sequence=2&isAllowed=y>
- Anderson, J. C., & Gerbing, D. W. (1984). The effect of sampling error on convergence, improper solutions, and goodness-of-fit indices for maximum likelihood confirmatory factor analysis. *Psychometrika*, 49(2), 155-173.

- Ba, S., & Pavlou, P. A. (2002). Evidence of the effect of trust building technology in electronic markets: Price premiums and buyer behavior. *MIS Quarterly*, 26(3)243-268.
- Bahri-Ammari, N., Van Niekerk, M., Ben Khelil, H., & Chtioui, J. (2016). The effects of brand attachment on behavioral loyalty in the luxury restaurant sector. *International Journal of Contemporary Hospitality Management*, 28(3), 559-585.
- Baldwin, C., Wilberforce, N., & Kapur, A. (2011). Restaurant and food service life cycle assessment and development of a sustainability standard. *The International Journal of Life Cycle Assessment*, 16, 40-49.
- Baldwin, M. W., Keelan, J. P. R., Fehr, B., Enns, V., & Koh-Rangarajoo, E. (1996). Social-cognitive conceptualization of attachment working models: Availability and accessibility effects. *Journal of Personality and Social Psychology*, 71(1), 94.
- Baloglu, S., & McCleary, K. W. (1999). A model of destination image formation. *Annals of Tourism Research*, 26(4), 868-897.
- Barreda, A. A., Nusair, K., Wang, Y., Okumus, F., & Bilgihan, A. (2020). The impact of social media activities on brand image and emotional attachment: A case in the travel context. *Journal of Hospitality and Tourism Technology*, 11(1), 109-135.
- Basaran, U., & Buyukyilmaz, O. (2015). The Effects of Utilitarian and Hedonic Values on Young Consumers' Satisfaction and Behavioral Intentions. *Eurasian Journal of Business and Economics*, 8(16), 1-18.
- Bekar, A., Durmaz, Ş., & Yozukmaz, N. (2020). The effect of green practices on emotional attachment and green loyalty of coffee shop consumers (Turkey). *Turizam* 24(1), 33-45.
- Belaid, S., & Temessek Behi, A. (2011). The role of attachment in building consumer-brand relationships: an empirical investigation in the utilitarian consumption context. *Journal of Product & Brand Management*, 20(1), 37-47.
- Belk, R. W. (1988). Possessions and the extended self. *Journal of Consumer Research*, 15(2), 139-168.
- Bowlby, J. (1969). *Attachment and loss* (No. 79). Random House.
- Borden, N. H. (1964). The concept of the marketing mix. *Journal of Advertising Research*, 4(2), 2-7.
- Boztepe, A. (2012). Green marketing and its impact on consumer buying behavior. *European Journal of Economic & Political Studies*, 5(1), 5-21.

- Brakus, J. J., Schmitt, B. H., & Zarantonello, L. (2009). Brand experience: What is it? How is it measured? Does it affect loyalty? *Journal of Marketing*, 73(3), 52-68.
- Buenaventura, J. P. G., & Gutierrez, L. B. (2023). Green Marketing Practices of Selected Japanese Restaurants in Manila: Marketing Intervention. *East Asian Journal of Multidisciplinary Research*, 2(5), 2053-2080.
- Buenaventura, J. P. G., Masaga, J. E. E., Pucerio, H., Salcedo, S. L., Tabar, P., & Victoria, K. T. (2024). Green pricing practices of selected restaurants in Quezon City. *Ignatian International Journal for Multidisciplinary Research*, 2(4), 969-985.
- Butler, J. (2008). The compelling “hard case” for “green” hotel development. *Cornell Hospitality Quarterly*, 49(3), 234-244.
- Cantele, S., & Cassia, F. (2020). Sustainability implementation in restaurants: A comprehensive model of drivers, barriers, and competitiveness-mediated effects on firm performance. *International Journal of Hospitality Management*, 87, 102510.
- Chamorro, A., & Bañegil, T. M. (2006). Green marketing philosophy: a study of Spanish firms with ecolabels. *Corporate Social Responsibility and Environmental Management*, 13(1), 11-24.
- Chan, E. S. W. (2014). Green marketing: Hotel customers’ perspective. *Journal of Travel & Tourism Marketing*, 31(8), 915-936.
- Chan, S. W. (2013). Gap analysis of green hotel marketing. *International Journal of Contemporary Hospitality Management*, 25(7), 1017-1048.
- Chang, C. (2011). Feeling ambivalent about going green. *Journal of Advertising*, 40(4), 19-32.
- Chang, K. C. (2013). How reputation creates loyalty in the restaurant sector. *International Journal of Contemporary Hospitality Management*, 25(4), 536-557.
- Chang, T. Y., & Lin, Y. C. (2022). The effects of atmosphere on perceived values and customer satisfaction toward the theme hotel: The moderating role of green practice perception. *Sustainability*, 14(15), 9153.
- Chen, Y. S. (2008). The driver of green innovation and green image–green core competence. *Journal of Business Ethics*, 81, 531-543.
- Chen, Y. S. (2010). The drivers of green brand equity: Green brand image, green satisfaction, and green trust. *Journal of Business Ethics*, 93, 307-319.
- Chen, Y. S., & Chang, C. H. (2013). The determinants of green product development performance: Green dynamic capabilities, green transformational leadership, and green creativity. *Journal of Business Ethics*, 116, 107-119.

- Chen, Y. S., Hung, S. T., Wang, T. Y., Huang, A. F., & Liao, Y. W. (2017). The influence of excessive product packaging on green brand attachment: The mediation roles of green brand attitude and green brand image. *Sustainability*, 9(4), 654.
- Cheung, M. L., Pires, G. D., Rosenberger III, P. J., Leung, W. K., & Ting, H. (2021). Investigating the role of social media marketing on value co-creation and engagement: An empirical study in China and Hong Kong. *Australasian Marketing Journal*, 29(2), 118-131.
- Choi, G., & Parsa, H. G. (2007). Green practices II: Measuring restaurant managers' psychological attributes and their willingness to charge for the "Green Practices". *Journal of Foodservice Business Research*, 9(4), 41-63.
- Chou, C. J., Chen, K. S., & Wang, Y. Y. (2012). Green practices in the restaurant industry from an innovation adoption perspective: Evidence from Taiwan. *International Journal of Hospitality Management*, 31(3), 703-711.
- Chung, K. C. (2020). Green marketing orientation: Achieving sustainable development in green hotel management. *Journal of Hospitality Marketing & Management*, 29(6), 722-738.
- Cretu, A. E., & Brodie, R. J. (2007). The influence of brand image and company reputation where manufacturers market to small firms: A customer value perspective. *Industrial Marketing Management*, 36(2), 230-240.
- Currin, E. (2012). Businesses going green: An analysis of the factors that motivate firms to adopt environmentally friendly practices. *Bridges: A Journal of Student Research*, 6(6), 3.
- Dangelico, R. M., & Vocalelli, D. (2017). "Green Marketing": An analysis of definitions, strategy steps, and tools through a systematic review of the literature. *Journal of Cleaner Production*, 165, 1263-1279.
- Das, P., Kaur, T., Dubey, R. K., Dixit, S. K., & Mandal, S. (2024). Examining the enablers of street food attachment: an integrated attachment-SOR perspective. *Journal of Foodservice Business Research*, 1-21. <https://doi.org/10.1080/15378020.2024.2368915>
- Davari, A., & Strutton, D. (2014). Marketing mix strategies for closing the gap between green consumers' pro-environmental beliefs and behaviors. *Journal of Strategic Marketing*, 22(7), 563-586.
- DE, A. D. L. I. V. (2024). Analysis of visual brand identity in the fast-food sector: A neuromarketing study. *Revista de Ciencias*, 29, 1-20.
- Delafrooz, N., Taleghani, M., & Nouri, B. (2014). Effect of green marketing on consumer purchase behavior. *QScience Connect*, 2014(1), 1-9.
- Delmas, M. A., & Burbano, V. C. (2011). The drivers of greenwashing. *California Management Review*, 54(1), 64-87.

- Dief, M. E., & Font, X. (2010). The determinants of hotels' marketing managers' green marketing behaviour. *Journal of Sustainable Tourism*, 18(2), 157-174.
- Dijkstra, T. K., & Henseler, J. (2015). Consistent partial least squares path modeling. *MIS Quarterly*, 39(2), 297-316.
- DiPietro, R. B., Cao, Y., & Partlow, C. (2013). Green practices in upscale foodservice operations: Customer perceptions and purchase intentions. *International Journal of Contemporary Hospitality Management*, 25(5), 779-796.
- Dichter, E. (1985). What's in an image. *Journal of Consumer Marketing*, 2(1), 75-81.
- Durif, F., Boivin, C., & Julien, C. (2010). In search of a green product definition. *Innovative Marketing*, 6(1), 83-94.
- Dwayne Ball, A., & Tasaki, L. H. (1992). The role and measurement of attachment in consumer behavior. *Journal of Consumer Psychology*, 1(2), 155-172.
- Dwivedi, A. (2015). A higher-order model of consumer brand engagement and its impact on loyalty intentions. *Journal of Retailing and Consumer Services*, 24, 100-109.
- Edwards, J. R., & Cable, D. M. (2009). The value of value congruence. *Journal of Applied Psychology*, 94(3), 654.
- Elkington, J., & Hailes, J. (1992). *Holidays that don't cost the earth*. Victor Gollancz.
- Erkmen, E., & Hancer, M. (2019). Building brand relationship for restaurants: An examination of other customers, brand image, trust, and restaurant attributes. *International Journal of Contemporary Hospitality Management*, 31(3), 1469-1487.
- Fahmi, M. A. (2023). Analysis of green purchase intention in coffee shops and restaurants: An empirical analysis. *Journal of Entrepreneurship, Management and Industry (JEMI)*, 5(4), 269-280.
- Farooq, O., Rupp, D. E., & Farooq, M. (2017). The multiple pathways through which internal and external corporate social responsibility influence organizational identification and multifoci outcomes: The moderating role of cultural and social orientations. *Academy of Management Journal*, 60(3), 954-985.
- Febrian, A., Nani, D. A., Lina, L. F., & Husna, N. (2022). The role of social media activities to enhance brand equity. *Journal of Economics, Business, & Accountancy Ventura*, 25(1), 20.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39-50.

- Fournier, V. (1998). Stories of development and exploitation: Militant voices in an enterprise culture. *Organization*, 5(1), 55-80
- Gagić, S., Mikšić, D., & Petrović, M. D. (2015). New trends in restaurant industry: Serving locally produced and organic food. *International Journal Scientific and Applicative Papers*, 8(2), 175.
- Gardner, B. B., & Levy, S. J. (1999). The product and the brand. In S. J. Levy & D. W. Rook (Eds.), *Brands, consumers, symbols, & research. Sidney J. Levy on marketing. Thousand* (pp 131-141). Sage Publications
- Gelderman, C. J., Schijns, J., Lambrechts, W., & Vijgen, S. (2021). Green marketing as an environmental practice: The impact on green satisfaction and green loyalty in a business-to-business context. *Business Strategy and the Environment*, 30(4), 2061-2076.
- Ghobbe, S., & Nohekhan, M. (2023). *Mental Perception of Quality: Green Marketing as a Catalyst for Brand Quality Enhancement* [Preprint]. arXiv. <https://doi.org/10.48550/arXiv.2312.15>
- Goh, S. K., Jiang, N., & Tee, P. L. (2016). The impact of brand trust, self-image congruence and usage satisfaction toward smartphone repurchase intention. *International Review of Management and Marketing*, 6(3), 436-441.
- Gopal, S., Gil, M. T., Cydel Salian, B., & Baddaoui, J. (2024). Optimizing digital menus for enhanced purchase intentions: insights from India's restaurant industry in the post-COVID-19 era. *Cogent Business & Management*, 11(1), 2432536.
- Gössling, S. (2002). Global environmental consequences of tourism. *Global Environmental Change*, 12(4), 283-302.
- Grace, D., & O'Cass, A. (2005). Service branding: consumer verdicts on service brands. *Journal of Retailing and Consumer Services*, 12(2), 125-139.
- Gupta, A., Dash, S., & Mishra, A. (2019). All that glitters is not green: Creating trustworthy eco-friendly services at green hotels. *Tourism Management*, 70, 155-169.
- Ha, J., & Jang, S. S. (2010). Effects of service quality and food quality: The moderating role of atmospherics in an ethnic restaurant segment. *International Journal of Hospitality Management*, 29(3), 520-529.
- Hair, J., & Alamer, A. (2022). Partial Least Squares Structural Equation Modeling (PLS-SEM) in second language and education research: Guidelines using an applied example. *Research Methods in Applied Linguistics*, 1(3), 100027.
- Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, 31(1), 2-24.

- Hair Jr, J. F., Matthews, L. M., Matthews, R. L., & Sarstedt, M. (2017). PLS-SEM or CB-SEM: updated guidelines on which method to use. *International Journal of Multivariate Data Analysis*, 1(2), 107-123.
- Han, H., & Kim, Y. (2010). An investigation of green hotel customers' decision formation: Developing an extended model of the theory of planned behavior. *International Journal of Hospitality Management*, 29(4), 659-668.
- Han, H., Hsu, L. T. J., & Lee, J. S. (2009). Empirical investigation of the roles of attitudes toward green behaviors, overall image, gender, and age in hotel customers' eco-friendly decision-making process. *International Journal of Hospitality Management*, 28(4), 519-528.
- Hanaysha, J. R. (2022). An examination of social media advertising features, brand engagement and purchase intention in the fast food industry. *British Food Journal*, 124(11), 4143-4160.
- He, H., Zhu, W., Gouran, D., & Kolo, O. (2016). Moral identity centrality and cause-related marketing: The moderating effects of brand social responsibility image and emotional brand attachment. *European Journal of Marketing*, 50(1/2), 236-259.
- Hemsley-Brown, J. (2023). Antecedents and consequences of brand attachment: A literature review and research agenda. *International Journal of Consumer Studies*, 47(2), 611-628.
- Hengboriboon, L., Naruetharadol, P., Ketkeaw, C., & Gebsobut, N. (2022). The impact of product image, CSR and green marketing in organic food purchase intention: Mediation roles of corporate reputation. *Cogent Business & Management*, 9(1), 2140744.
- Henion, K. E., & Kinnear, T. C. (Eds.). (1976). *Ecological marketing*. American Marketing Association.
- Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43, 115-135.
- Homer, P. M., & Kahle, L. R. (1988). A structural equation test of the value–attitude–behavior hierarchy. *Journal of Personality and Social Psychology*, 54(4), 638–646.
- Hossain, M. I., & Rahman, M. S. (2018). Measuring the impact of green marketing mix on green purchasing behavior: a study on Bangladeshi consumers. *The Comilla University Journal of Business Studies*, 5(1), 5-19.
- Hu, M. L., Horng, J. S., Teng, C. C., & Chou, S. F. (2013). A criteria model of restaurant energy conservation and carbon reduction in Taiwan. *Journal of Sustainable Tourism*, 21(5), 765-779.
- Hu, H. H., Parsa, H. G., & Self, J. (2010). The dynamics of green restaurant patronage. *Cornell Hospitality Quarterly*, 51(3), 344-362.

- Huaman-Ramirez, R., & Merunka, D. (2019). Brand experience effects on brand attachment: the role of brand trust, age, and income. *European Business Review*, 31(5), 610-645.
- Huang, Y., & Hall, C. M. (2023). Locality in the promoted sustainability practices of Michelin-Starred restaurants. *Sustainability*, 15(4), 3672.
- Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, 6(1), 1-55.
- Hu, M. L., Horng, J. S., Teng, C. C., & Chou, S. F. (2013). A criteria model of restaurant energy conservation and carbon reduction in Taiwan. *Journal of Sustainable Tourism*, 21(5), 765-779.
- Huang, Y., & Hall, C. M. (2023). Locality in the Promoted Sustainability Practices of Michelin-Starred Restaurants. *Sustainability*, 15(4), 3672.
- Hyun, S. S. (2010). Predictors of relationship quality and loyalty in the chain restaurant industry. *Cornell Hospitality Quarterly*, 51(2), 251-267.
- Ioannou, I., & Serafeim, G. (2021). *Corporate sustainability: A strategy?*. (Harvard Business School Working Paper No 19-065). Harvard Business School. <https://doi.org/10.2139/ssrn.3312191>
- Išoraitė, M. (2018). Brand image development. *Ecoforum*, 7(1), 0-0.
- Iyer, P., Davari, A., & Paswan, A. (2016). Green products: Altruism, economics, price sensitivity and purchase intention. *Social Business*, 61(1), 39-64.
- Jackson, D. L., Gillaspay Jr, J. A., & Purc-Stephenson, R. (2009). Reporting practices in confirmatory factor analysis: an overview and some recommendations. *Psychological Methods*, 14(1), 6.
- Jang, S., Liu, Y., & Namkung, Y. (2011). Effects of authentic atmospherics in ethnic restaurants: investigating Chinese restaurants. *International Journal of Contemporary Hospitality Management*, 23(5), 662-680.
- Jang, S. S., Ha, J., & Park, K. (2012). Effects of ethnic authenticity: Investigating Korean restaurant customers in the US. *International Journal of Hospitality Management*, 31(3), 990-1003.
- Jang, S. S., & Namkung, Y. (2009). Perceived quality, emotions, and behavioral intentions: Application of an extended Mehrabian–Russell model to restaurants. *Journal of Business Research*, 62(4), 451-460.
- Jang, Y. J., Kim, W. G., & Lee, H. Y. (2015). Coffee shop consumers' emotional attachment and loyalty to green stores: The moderating role of green consciousness. *International Journal of Hospitality Management*, 44, 146-156.

- Jang, Y. J. (2016). Environmental sustainability management in the foodservice industry: Understanding the antecedents and consequences. *Journal of Foodservice Business Research*, 19(5), 441-453.
- Jeong, E., & Jang, S. (2010, June 8-10). *Effects of restaurant green practices: Which practices are important and effective?* (Conference presentation). Harrah Hospitality Research Summit, Las Vegas, NV.
- Jeong, E., & Jang, S. S. (2011). Restaurant experiences triggering positive electronic word-of-mouth (eWOM) motivations. *International Journal of Hospitality Management*, 30(2), 356-366.
- Jeong, E., Jang, S. S., Day, J., & Ha, S. (2014). The impact of eco-friendly practices on green image and customer attitudes: An investigation in a café setting. *International Journal of Hospitality Management*, 41, 10-20.
- Jia, Y., Garg, A., & Dias Soeiro, J. (2024). Comprehensive framework for understanding consumers' intentions of artificial intelligence devices in the hospitality industry: a meta-analysis. *Current Issues in Tourism*, 1-19.
- Jin, N., Lee, S., & Huffman, L. (2012). Impact of restaurant experience on brand image and customer loyalty: Moderating role of dining motivation. *Journal of Travel & Tourism Marketing*, 29(6), 532-551.
- Josiam, B. M., & Monteiro, P. A. (2004). Tandoori tastes: perceptions of Indian restaurants in America. *International Journal of Contemporary Hospitality Management*, 16(1), 18-26.
- Joshi, Y., & Rahman, Z. (2015). Factors affecting green purchase behaviour and future research directions. *International Strategic Management Review*, 3(1-2), 128-143.
- Jun, K., & Yoon, B. (2024). Consumer perspectives on restaurant sustainability: An SOR Model approach to affective and cognitive states. *Journal of Foodservice Business Research*, 27(1) 1-24.
- Kabadayi, E. T., Aksoy, N. C., & Turkay, P. B. (2023). How does customer engagement value occur in restaurants? A stimulus-organism-response (SOR) perspective. *The Service Industries Journal*, 43(7-8), 497-524.
- Kasim, A., & Ismail, A. (2012). Environmentally friendly practices among restaurants: Drivers and barriers to change. *Journal of Sustainable Tourism*, 20(4), 551-570.
- Katz, D. (1960). The functional approach to the study of attitudes. *Public Opinion Quarterly*, 24(2), 163-204.
- Kaur, B., Gangwar, V. P., & Dash, G. (2022). Green marketing strategies, environmental attitude, and green buying intention: A multi-group analysis in an emerging economy context. *Sustainability*, 14(10), 6107.

- Keller, K. L. (1987). Memory factors in advertising: The effect of advertising retrieval cues on brand evaluations. *Journal of Consumer Research*, 14(3), 316-333.
- Keller, K. L. (1993). Conceptualizing, measuring, and managing customer-based brand equity. *Journal of Marketing*, 57(1), 1-22.
- Keller, K. L., & Lehmann, D. R. (2006). Brands and branding: Research findings and future priorities. *Marketing Science*, 25(6), 740-759.
- Keaveney, S. M., & Hunt, K. A. (1992). Conceptualization and operationalization of retail store image: A case of rival middle-level theories. *Journal of the Academy of Marketing Science*, 20(2), 165-175.
- Kim, E. J. (2022). The Effects of Brand Attachment, Brand Name, and Brand Image Congruence on Brand Attitude, WOM and Revisit Intentions in the Restaurant Sector. *The Korean Journal of Franchise Management*, 13(2), 53-66.
- Kim, M. S., & Stepchenkova, S. (2018). Examining the impact of experiential value on emotions, self-connective attachment, and brand loyalty in Korean family restaurants. *Journal of Quality Assurance in Hospitality & Tourism*, 19(3), 298-321.
- Khan, S. A. R., Sheikh, A. A., Ashraf, M., & Yu, Z. (2022). Improving consumer-based green brand equity: The role of healthy green practices, green brand attachment, and green skepticism. *Sustainability*, 14(19), 11829.
- Khuong, M. N., Nhan, D. H., & Phuong, N. T. M. (2023). The effects of restaurant green practices on customer intention to purchase eco-friendly products: Evidence from Vietnam. *Zbornik radova Ekonomskog fakulteta u Rijeci: Časopis za ekonomsku teoriju i praksu*, 41(1), 205-248.
- Kim, M. J., & Hall, C. M. (2020). Can sustainable restaurant practices enhance customer loyalty? The roles of value theory and environmental concerns. *Journal of Hospitality and Tourism Management*, 43, 127-138.
- Kim, M., & Stepchenkova, S. (2021). Do consumers care about CSR activities of their favorite restaurant brands? Evidence from engagement on social networks. *Journal of Hospitality Marketing & Management*, 30(3), 305-325.
- Kim, Y. J., Njite, D., & Hancer, M. (2013). Anticipated emotion in consumers' intentions to select eco-friendly restaurants: Augmenting the theory of planned behavior. *International Journal of Hospitality Management*, 34, 255-262.
- King, A.A. and Lenox, M.J. (2001), "Does it really pay to be green? An empirical study of firm environmental and financial performance", *Journal of Industrial Ecology*, 5(1),105-116.

- Kirchoff, J. F., Koch, C., & Satinover Nichols, B. (2011). Stakeholder perceptions of green marketing: the effect of demand and supply integration. *International Journal of Physical Distribution & Logistics Management*, 41(7), 684-696.
- Kivela, J., Inbakaran, R., & Reece, J. (2000). Consumer research in the restaurant environment. Part 3: analysis, findings and conclusions. *International Journal of Contemporary Hospitality Management*, 12(1), 13-30.
- Ko, J. H., & Jeon, H. M. (2024). The Impact of Eco-Friendly Practices on Generation Z's Green Image, Brand Attachment, Brand Advocacy, and Brand Loyalty in Coffee Shop. *Sustainability*, 16(8), 3126.
- Kotler, P. (2011). Reinventing marketing to manage the environmental imperative. *Journal of Marketing*, 75(4), 132-135.
- Kotler, P. (1991). *Marketing management: Analysis, planning, implementation and control*. Prentice Hall.
- Kotler, P., & Keller, K. L. (2016). *A framework for marketing management*. Pearson
- Kumar, P., & Ghodeswar, B. (2015). Green marketing mix: A review of literature and direction for future research. *International Journal of Asian Business and Information Management (IJABIM)*, 6(3), 42-59.
- Kumar, P., Polonsky, M., Dwivedi, Y. K., & Kar, A. (2021). Green information quality and green brand evaluation: the moderating effects of eco-label credibility and consumer knowledge. *European Journal of Marketing*, 55(7), 2037-2071.
- Kumar, V., Rahman, Z., Kazmi, A. A., & Goyal, P. (2012). Evolution of sustainability as marketing strategy: Beginning of new era. *Procedia-Social and Behavioral Sciences*, 37, 482-489.
- Kwok, L., Huang, Y. K., & Hu, L. (2016). Green attributes of restaurants: What really matters to consumers?. *International Journal of Hospitality Management*, 55, 107-117.
- Laroche, M., Bergeron, J., & Barbaro-Forleo, G. (2001). Targeting consumers who are willing to pay more for environmentally friendly products. *Journal of consumer marketing*, 18(6), 503-520.
- Lee, J. H., & Hwang, J. (2011). Luxury marketing: The influences of psychological and demographic characteristics on attitudes toward luxury restaurants. *International Journal of Hospitality Management*, 30(3), 658-669.
- Lee, M. J., Kang, H., Choi, H., & Olds, D. (2020). Managerial attitudes towards green practices in educational restaurant operations: An importance-performance analysis. *Journal of Hospitality & Tourism Education*, 32(3), 142-155.

- Leonidou, C. N., & Skarmas, D. (2017). Gray shades of green: Causes and consequences of green skepticism. *Journal of Business Ethics*, 144, 401-415.
- Leonidou, C. N., Katsikeas, C. S., & Morgan, N. A. (2013). "Greening" the marketing mix: Do firms do it and does it pay off?. *Journal of the Academy of Marketing Science*, 41, 151-170.
- Liang, S.C., Li, J.S., Liang, R.H., Li, J.Y., 2011. The analysis and comparison of the organization's carbon dioxide emissions for hotels. In *Proceedings of the International Conference on Sustainable Development, Innovation & Education of Hospitality, Tourism & Leisure* (pp. 408–418).
- Lin, P. C., & Huang, Y. H. (2012). The influence factors on choice behavior regarding green products based on the theory of consumption values. *Journal of Cleaner Production*, 22(1), 11-18.
- Liu, S., Kasturiratne, D., & Moizer, J. (2012). A hub-and-spoke model for multi-dimensional integration of green marketing and sustainable supply chain management. *Industrial Marketing Management*, 41(4), 581-588.
- Lee, J. L., James, J. D., & Kim, Y. K. (2014). A reconceptualization of brand image. *International Journal of Business Administration*, 5(4), 1-11
- Lo, A., King, B., & Mackenzie, M. (2017). Restaurant customers' attitude toward sustainability and nutritional menu labels. *Journal of Hospitality Marketing & Management*, 26(8), 846-867.
- Low, G. S., & Lamb Jr, C. W. (2000). The measurement and dimensionality of brand associations. *Journal of Product & Brand Management*, 9(6), 350-370.
- Lu, L., & Gursoy, D. (2017). Does offering an organic food menu help restaurants excel in competition? An examination of diners' decision-making. *International Journal of Hospitality Management*, 63, 72-81.
- Luchs, M. G., Naylor, R. W., Irwin, J. R., & Raghunathan, R. (2010). The sustainability liability: Potential negative effects of ethicality on product preference. *Journal of Marketing*, 74(5), 18-31.
- Mahenc, P. (2008). *Introducing Greens Goods*. LERNA Working Papers 08.03. 247, Toulouse, LERNA, University of Toulouse. Retrieved from <https://core.ac.uk>
- 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.
- Mahasuweerachai, P., & Suttikun, C. (2022). The effect of green self-identity on perceived image, warm glow and willingness to purchase: A new generation's perspective towards eco-friendly restaurants. *Sustainability*, 14(17), 10539.

- Manaktola, K., & Jauhari, V. (2007). Exploring consumer attitude and behaviour towards green practices in the lodging industry in India. *International Journal of Contemporary Hospitality Management*, 19(5), 364-377.
- Mardia, K. V. (1970). Measures of multivariate skewness and kurtosis with applications. *Biometrika*, 57(3), 519-530
- Marinkovic, V., Senic, V., & Mimovic, P. (2015). Factors affecting choice and image of ethnic restaurants in Serbia. *British Food Journal*, 117(7), 1903-1920.
- Marsh, H. W., Balla, J. R., & McDonald, R. P. (1988). Goodness-of-fit indexes in confirmatory factor analysis: The effect of sample size. *Psychological Bulletin*, 103(3), 391.
- Martínez-Navalón, J. G., Gelashvili, V., & Debasa, F. (2019). The impact of restaurant social media on environmental sustainability: An empirical study. *Sustainability*, 11(21), 6105.
- Martinez, P. (2015). Customer loyalty: Exploring its antecedents from a green marketing perspective. *International Journal of Contemporary Hospitality Management*, 27(5), 896-917.
- McCarthy, J. (1964). The concept of the marketing mix. *Journal of Advertising Research*, June, 2-7.
- McCarthy, J., Rowley, J., Ashworth, C. J., & Pioch, E. (2014). Managing brand presence through social media: the case of UK football clubs. *Internet Research*, 24(2), 181-204.
- M. Charter, M. (1991). *Greener marketing: A responsible approach to business*. Sheffield, UK: Greenleaf Publishing.
- Mehrabian, A., & Russell, J. A. (1974). *An approach to environmental psychology*. The MIT Press.
- Mejia, C. (2024). Consumers' willingness to pay in socially sustainable restaurants: an application of the decent work scale. *British Food Journal*, 126(7), 2841-2860.
- Mishra, P., & Sharma, P. (2014). Green marketing: Challenges and opportunities for business. *BVIMR Management Edge*, 7(1), 78-86.
- Montero-Navarro, A., González-Torres, T., Rodríguez-Sánchez, J. L., & Gallego-Losada, R. (2021). A bibliometric analysis of greenwashing research: a closer look at agriculture, food industry and food retail. *British Food Journal*, 123(13), 547-560.
- Mukonza, C., & Swarts, I. (2020). The influence of green marketing strategies on business performance and corporate image in the retail sector. *Business Strategy and the Environment*, 29(3), 838-845.

- Muposhi, A., & Dhurup, M. (2016, September). The influence of green atmospherics on store image, store loyalty, and green purchase behaviour. In *Proceedings of the 28th Annual Conference of the Southern African Institute of Management Scientists* (pp. 269-280). Southern African Institute of Management Scientists.
- Namkung, Y., & Jang, S. (2007). Does food quality really matter in restaurants? Its impact on customer satisfaction and behavioral intentions. *Journal of Hospitality & Tourism research*, 31(3), 387-409.
- Namkung, Y., & Jang, S. S. (2013). Effects of restaurant green practices on brand equity formation: Do green practices really matter?. *International Journal of Hospitality Management*, 33, 85-95.
- Namkung, Y., & Jang, S. (2017). Are consumers willing to pay more for green practices at restaurants? *Journal of Hospitality & Tourism Research*, 41(3), 329-356.
- Nguyen-Viet, B. (2023). The impact of green marketing mix elements on green customer based brand equity in an emerging market. *Asia-Pacific Journal of Business Administration*, 15(1), 96-116.
- Nguyen, N., & Leblanc, G. (2001). Corporate image and corporate reputation in customers' retention decisions in services. *Journal of Retailing and Consumer Services*, 8(4), 227-236.
- Nugraha, W. S., Szakos, D., Süth, M., & Kasza, G. (2024). Greenwashing in the food industry: a systematic review exploring the current situation and possible countermeasures. *Cleaner and Responsible Consumption*, 15, 100227.
- Nunes, B., & Bennett, D. (2010). Green operations initiatives in the automotive industry: An environmental reports analysis and benchmarking study. *Benchmarking: An International Journal*, 17(3), 396-420.
- Nusairat, N., Hammouri, Q., Al-Ghadir, H., Ahmad, A., & Eid, M. (2020). The effect of design of restaurant on customer behavioral intentions. *Management Science Letters*, 10(9), 1929-1938.
- Nyberg, M., Börjesson, S. M. E., Höijer, K., Olsson, V., Rothenberg, E., & Wendin, K. (2022). Circular gastronomy—Exploring a new compound concept at the interface between food, meals and sustainability. *International Journal of Gastronomy and Food Science*, 30, 100610.
- Özgen, I., Binboğa, G., & Güneş, S. T. (2021). An assessment of the carbon footprint of restaurants based on energy consumption: A case study of a local pizza chain in Turkey. *Journal of Foodservice Business Research*, 24(6), 709-729.
- Papadas, K. K., Avlonitis, G. J., & Carrigan, M. (2017). Green marketing orientation: Conceptualization, scale development and validation. *Journal of Business Research*, 80, 236-246.

- Papargyropoulou, E., Steinberger, J. K., Wright, N., Lozano, R., Padfield, R., & Ujang, Z. (2019). Patterns and causes of food waste in the hospitality and food service sector: Food waste prevention insights from Malaysia. *Sustainability*, 11(21), 6016.
- Park, C. W., MacInnis, D. J., & Priester, J. (2006). Beyond attitudes: Attachment and consumer behavior. *Seoul Journal of Business*, 12(2), 3-35.
- Park, C. W., MacInnis, D. J., Priester, J., Eisingerich, A. B., & Iacobucci, D. (2010). Brand attachment and brand attitude strength: Conceptual and empirical differentiation of two critical brand equity drivers. *Journal of Marketing*, 74(6), 1-17.
- Pearson, N. (2024). Rethinking food waste: lessons from best practice. *Journal of Sustainable Tourism*, 1-22.
- Peattie, K. (2001). Towards sustainability: The third age of green marketing. *The Marketing Review*, 2(2), 129-146.
- Peattie, K., & Crane, A. (2005). Green marketing: legend, myth, farce or prophecy? *Qualitative Market Research: An International Journal*, 8(4), 357-370.
- Perramon, J., Alonso-Almeida, M. D. M., Llach, J., & Bagur-Femenías, L. (2014). Green practices in restaurants: Impact on firm performance. *Operations Management Research*, 7, 2-12.
- Podsakoff, P. M., MacKenzie, S. B., & Podsakoff, N. P. (2012). Sources of method bias in social science research and recommendations on how to control it. *Annual Review of Psychology*, 63(1), 539-569.
- Polonsky, M. J. (2008). An introduction to green marketing. *Global Environment: Problems and Policies*, 2(1), 1-10.
- Polonsky, M. J., & Rosenberger III, P. J. (2001). Reevaluating green marketing: a strategic approach. *Business Horizons*, 44(5), 21-21.
- Porter, M. E., & Kramer, M. R. (2011). Creating shared value. *Harvard Business Review*, 89(1/2), 62-77.
- Pulkkinen, H., Roininen, T., Katajajuuri, J. M., & Järvinen, M. (2016). Development of a Climate Choice meal concept for restaurants based on carbon footprinting. *The International Journal of Life Cycle Assessment*, 21, 621-630.
- Punitha, S., & Rasdi, R. M. (2013). Corporate social responsibility: Adoption of green marketing by hotel industry. *Asian Social Science*, 9(17), 79.
- Rahimah, A., & Yuliaji, E. S. (2024). Predicting Consumers' Attitudes and Behaviors Toward Green Practices and Perceived Ecological Image of a Green Restaurant. *KnE Social Sciences*, 2024, 115-140.

- Rahman, I., Park, J., & Chi, C. G. Q. (2015). Consequences of “greenwashing”: Consumers’ reactions to hotels’ green initiatives. *International Journal of Contemporary Hospitality Management*, 27(6), 1054-1081.
- Renfors, S. M., & Wendt, T. (2024). Restaurants without Bins: How Does a Circular Restaurant Operate? *Sustainability*, 16(6), 2312
- Remar, D., Sukhu, A., & Bilgihan, A. (2022). The effects of environmental consciousness and menu information on the perception of restaurant image. *British Food Journal*, 124(11), 3563-3581.
- Reynolds, T. J., & Gutman, J. (1984). Advertising is image management. *Journal of Advertising Research*, 24(1984), 27-37.
- Riva, F., Magrizos, S., Rubel, M. R. B., & Rizomyliotis, I. (2022). Green consumerism, green perceived value, and restaurant revisit intention: Millennials' sustainable consumption with moderating effect of green perceived quality. *Business Strategy and the Environment*, 31(7), 2807-2819.
- Ryu, K., & Han, H. (2011). New or repeat customers: How does physical environment influence their restaurant experience?. *International Journal of Hospitality Management*, 30(3), 599-611.
- Ryu, K., Han, H., & Jang, S. (2010). Relationships among hedonic and utilitarian values, satisfaction, and behavioral intentions in the fast-casual restaurant industry. *International Journal of Contemporary Hospitality Management*, 22(3), 416-432.
- Ryu, N. E., Lee, S. H., & Park, H. (2019). Spheroid culture system methods and applications for mesenchymal stem cells. *Cells*, 8(12), 1620.
- Salzberg, A. C., Gough, M. Z., & Suen, I. S. (2019). Sustainable innovation behavior in restaurants. *Journal of Foodservice Business Research*, 22(2), 167-190.
- Segson, U., & Tan, C. C. (2018). Application of stimulus-organism-response (SOR) theory to study consumer behavior of upscale restaurants in northern Thailand. In *ASEAN/Asian Academic Society International Conference Proceeding Series* (pp. 701-708). Retrieved from <https://core.ac.uk>
- Sharmen, S. (2018). Impact of customer relationship management practices on customer behavior in the restaurant industry of Bangladesh. *International Journal of Marketing Research Innovation*, 2(1), 47-63.
- Sheth, J. N., Newman, B. I., & Gross, B. L. (1991). Why we buy what we buy: A theory of consumption values. *Journal of Business Research*, 22(2), 159-170.
- Shimul, A. S. (2022). Brand attachment: a review and future research. *Journal of Brand Management*, 29(4), 400-419.
- Silvestri, F. (2018). The impact of coastal erosion on tourism: A theoretical model. *Theoretical Economics Letters*, 8(5), 806-813.

- Simão, L., & Lisboa, A. (2017). Green marketing and green brand–The Toyota Case. *Procedia Manufacturing*, 12, 183-194.
- Sirdeshmukh, D., Singh, J., & Sabol, B. (2002). Consumer trust, value, and loyalty in relational exchanges. *Journal of Marketing*, 66(1), 15-37.
- Sirgy, M. J. (1982). Self-concept in consumer behavior: A critical review. *Journal of Consumer Research*, 9(3), 287-300.
- Soriano, D. R. (2002). Customers' expectations factors in restaurants: The situation in Spain. *International Journal of Quality & Reliability Management*, 19(8/9), 1055-1067.
- Sunlu, U. (2003). Environmental impacts of tourism, In D. Camarda & L. Grassini (Eds.), *Local resources and global trades: Environments and agriculture in the Mediterranean region (pp. 263-270). CIHEAM. (Options Méditerranéennes: Série A. Séminaires Méditerranéens No. 57)*
- Suttikun, C., & Mahasuweerachai, P. (2023). The influence of status consumption and social media marketing strategies on consumers' perceptions of green and CSR strategies: How the effects link to emotional attachment to restaurants. *Journal of Hospitality and Tourism Management*, 56, 546-557.
- Sung, H. W., & Kim, E. K. (2010). Green marketing in the fashion industry. *Journal of the Korean Society of Clothing and Textiles*, 34(3), 529-539.
- Szuchnicki, A. L. (2009). *Examining the influence of restaurant green practices on customer return intention* (Master's thesis, University of Nevada, Las Vegas) UNLV Theses, Dissertations, Professional Papers, and Capstones, 155. <https://digitalscholarship.unlv.edu/thesesdissertations/155>
- Tan, B. C., Khan, N., & Lau, T. C. (2018). Investigating the determinants of green restaurant patronage intention. *Social Responsibility Journal*, 14(3), 469-484.
- Thomson, M., MacInnis, D. J., & Whan Park, C. (2005). The ties that bind: Measuring the strength of consumers' emotional attachments to brands. *Journal of Consumer Psychology*, 15(1), 77-91.
- Trudel, R. (2019). Sustainable consumer behavior. *Consumer Psychology Review*, 2(1), 85-96.
- Tumanan, M. A. R., & Lansangan, J. R. G. (2012). More than just a cuppa coffee: A multi-dimensional approach towards analyzing the factors that define place attachment. *International Journal of Hospitality Management*, 31(2), 529-534.
- Tüver, I. F., & Güzel, B. (2017). In a "Green" restaurant, what makes the customers satisfied? The restaurant attributes of TripAdvisor reviewers.. *Kastamonu Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi*, 18(1) 177-189.
- United Nations Environment Programme. (2021). Food waste index report 2021. <https://www.unep.org/resources/report/unep-food-waste-index-report-2021>

- United Nations Global Compact. (2004). *Who cares wins: Connecting financial markets to a changing world*.
https://www.unglobalcompact.org/docs/issues_doc/Financial_markets/who_cares_who_wins.pdf
- U.S. Energy Information Administration (EIA). (2023, April 20). *Restaurants use nearly four times as much energy per square foot as other commercial buildings*. U.S. Energy Information Administration.
<https://www.eia.gov/todayinenergy/detail.php?id=60241>
- Vallerand, R. J., Deshaies, P., Cuerrier, J. P., Pelletier, L. G., & Mongeau, C. (1992). Ajzen and Fishbein's theory of reasoned action as applied to moral behavior: A confirmatory analysis. *Journal of Personality and Social Psychology*, 62(1), 98-109.
- Van Dam, Y. K., & Apeldoorn, P. A. (1996). Sustainable marketing. *Journal of Macromarketing*, 16(2), 45-56.
- Verleye, G., De Ruyck, A., Vermeulen, W., & Schoenaers, I. (2023). Credibility of green advertising: Six elements that drive credibility in green advertising. *Frontiers in Communication*, 8, 1056020.
- Visschers, V. H., & Siegrist, M. (2015). Does better for the environment mean less tasty? Offering more climate-friendly meals is good for the environment and customer satisfaction. *Appetite*, 95, 475-483.
- Vlad, L. B., Vasile, D. C., Macovei, O. I., & Țuclea, C. E. (2016). Determinant factors of green marketing adoption in the hospitality sector. *Amfiteatru Economic Journal*, 18(Special Issue No. 10), 862-874.
- Wang, Y. (2012). *Designing restaurant digital menus to enhance user experience* (Master's thesis, Iowa State University). Iowa State University Digital Repository.
<https://dr.lib.iastate.edu/server/api/core/bitstreams/04ef43d0-4740-477a-9554-3c0404014462/content>
- Wang, Y. F., Chen, S. P., Lee, Y. C., & Tsai, C. T. S. (2013). Developing green management standards for restaurants: An application of green supply chain management. *International Journal of Hospitality Management*, 34, 263-273.
- Wang, Y. H., Chen, S. T., & Chen, N. N. (2016). An empirical study of the effect of green marketing on purchase intention - Evidence from Green Restaurant. *Advances in Management and Applied Economics*, 6(4), 1-14.
- Wen, J., & Song, B. (2017). Corporate ethical branding on YouTube: CSR communication strategies and brand anthropomorphism. *Journal of Interactive Advertising*, 17(1), 28-40.
- Woo, E., & Kim, Y. G. (2019). Consumer attitudes and buying behavior for green food products: From the aspect of green perceived value (GPV). *British Food Journal*, 121(2), 320-332.

- World Commission on Environment and Development. (1987) *Our common future*. Oxford University Press
- World Travel & Tourism Council (WTTC). (2024, April 9). *Travel industry to contribute record \$11 trillion to global GDP in 2024*. Reuters. <https://www.reuters.com/business/travel-industry-contribute-record-11-trillion-global-gdp-2024-2024-09-03/>
- Wu, S. I., & Chen, Y. J. (2014). The impact of green marketing and perceived innovation on purchase intention for green products. *International Journal of Marketing Studies*, 6(5), 81-100.
- Xu, Y., & Jeong, E. (2019). The effect of message framings and green practices on customers' attitudes and behavior intentions toward green restaurants. *International Journal of Contemporary Hospitality Management*, 31(6), 2270-2296.
- Yang, S., & Chai, J. (2022). The influence of enterprises' green marketing behavior on consumers' green consumption intention—Mediating role and moderating role. *Sustainability*, 14(22), 15478.
- Yi, S., Zhao, J., & Joung, H. W. (2018). Influence of price and brand image on restaurant customers' restaurant selection attribute. *Journal of Foodservice Business Research*, 21(2), 200-217.
- Yoon, B., Chung, Y., & Jun, K. (2020). Restaurant industry practices to promote healthy sustainable eating: A content analysis of restaurant websites using the value chain approach. *Sustainability*, 12(17), 7127.
- Zhang, Y. (2015). The impact of brand image on consumer behavior: A literature review. *Open Journal of Business and Management*, 3(1), 58-62.
- Zhang, T., Li, X., & Zhang, Y. (2025). Pricing for online food service considering green awareness of customers and green efforts of restaurants. *Sustainability*, 17(1), 367.
- Zhao, X., Lynch Jr, J. G., & Chen, Q. (2010). Reconsidering Baron and Kenny: Myths and truths about mediation analysis. *Journal of Consumer Research*, 37(2), 197-206.
- Zhao, X., Pan, C., Cai, J., Luo, X. R., & Wu, J. (2021). Driving e-commerce brand attachment through green packaging: An empirical investigation. *Journal of Electronic Commerce Research*, 22(3), 178-198.