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EXPLORING GREEN CONSUMER BEHAVIOR AND THE EFFECTIVENESS OF GREEN PRODUCT AVAILABILITY IN INTERNATIONAL - CHAIN BUDGET HOTEL IN BEKASI – INDONESIA

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ABSTRACT

This study investigates the factors influencing green consumer behavior in budget hotels in Indonesia, focusing on the integration of Environmental Concern (EC) and Green Product Availability (GPA) into the Theory of Planned Behavior (TPB) framework. The research examines the relationships between Attitude (ATT), Subjective Norms (SN), Perceived Behavioral Control (PCB), Environmental Concern (EC), Green Intention (GI), Green Consumer Behavior (GCB), and Green Product Availability (GPA) as a moderating variable. Data were collected from 300 respondents through a structured questionnaire and analyzed using SEM-PLS. The findings reveal that ATT, SN, and EC significantly influence GI, with ATT as the strongest predictor. GI is the most significant driver of GCB, confirming its mediating role. However, PCB has limited influence on GCB, highlighting the importance of addressing structural barriers. The moderation analysis shows that GPA significantly strengthens the relationship between GI and GCB, emphasizing the critical role of accessible eco-friendly products in translating intentions into behavior. This study extends the TPB framework and provides practical recommendations for hotel managers and policymakers. Strategies to promote sustainability include fostering positive attitudes, leveraging social norms, and ensuring the availability of green products. Future research should explore additional moderating factors and expand the context to other regions or hotel segments.

Keywords: *Green consumer behavior; Theory of Planned Behavior; Environmental concern; Green product availability; Sustainable practices; Hospitality industry; SEM-PLS analysis.*

1. Introduction

The hospitality industry has long been recognized as both a key driver of economic growth and a significant contributor to environmental challenges. Among the most pressing issues is the excessive use of single-use plastics, which has escalated to a global crisis. Indonesia, in particular, ranks as the second-largest contributor to marine plastic pollution, producing approximately 5.8 million tons of plastic waste annually, with 58% remaining uncollected and 9% directly entering water bodies (World Bank, 2022). This alarming statistic underscores the

urgency for stakeholders, particularly in the hotel industry, to adopt sustainable solutions and reduce their environmental footprint.

Hotels, as central players in the tourism sector, are major consumers of single-use plastics. From bottled water, toiletries, and in-room dining packaging to disposable amenities like razors, cotton swabs, and stir sticks, the convenience of plastics has led to widespread dependence. A single four-star hotel with 200 rooms can generate up to 300,000 pieces of plastic waste per month, making the hospitality industry one of the largest contributors to plastic pollution globally (Zengkun, 2019). This situation is further exacerbated in emerging economies like Indonesia, where environmental awareness, green product availability, and regulatory enforcement remain limited.

The growing global movement toward sustainability has prompted international hotel chains to implement green initiatives. Many hotels have replaced plastic amenities with biodegradable alternatives, launched waste reduction programs, and adopted eco-friendly operational practices (Greenview, 2022). However, despite these efforts, the adoption of green initiatives remains inconsistent, particularly in budget and economy hotels. Financial constraints, supply chain challenges, and limited consumer awareness are significant barriers that hinder the transition to sustainable practices (Nguyen et al., 2020; Ministry of Environment and Forestry, 2020).

Understanding consumer behavior is critical to addressing these challenges. The Theory of Planned Behavior (TPB) provides a robust framework for analyzing the factors influencing green consumer behavior. According to Ajzen (1991), individuals' attitudes, subjective norms, and perceived behavioral control determine their intention to perform a specific behavior. In the context of this study, the TPB framework is extended to include environmental concern and green product availability as key predictors of green intention and behavior. These variables are particularly relevant in Indonesia, where cultural, economic, and infrastructural factors shape consumer decision-making (Moorthy et al., 2021; Borusiak et al., 2021).

Indonesia's budget hotel sector presents a unique case for exploring green consumer behavior. Budget hotels are expected to experience rapid growth post-pandemic, driven by increasing domestic and international travel. However, this growth also translates into a higher demand for disposable amenities, amplifying the environmental impact. Guests' willingness to adopt eco-friendly behaviors, such as reducing plastic consumption, depends not only on their environmental awareness but also on the availability of green alternatives during their stay (Gleim & Lawson, 2014). Therefore, understanding the interplay between green product availability, consumer attitudes, and behavioral intentions is crucial for driving sustainable change.

This study seeks to address the following research questions; 1) How do attitude, subjective norms, perceived behavioral control, and environmental concern influence guests' intention to reduce plastic waste?; 2) What is the relationship between green intention and green consumer behavior in budget hotels?; 3) Does green product availability strengthen the relationship between green intention and consumer behavior?

To answer these questions, the study focuses on guests staying at international-chain budget hotels in Bekasi, Indonesia. Bekasi, as part of the Greater Jakarta area, represents a diverse market with a mix of business and leisure travellers. This demographic provides a unique opportunity to examine consumer perceptions and behaviours toward green initiatives in a rapidly growing urban context. Unlike prior studies that rely solely on online surveys, this research adopts a direct approach by engaging with hotel guests during their stay, ensuring immediate and contextually relevant responses.

This research is significant for several reasons. First, it contributes to the theoretical understanding of green consumer behaviour by extending the TPB framework to include green product availability as a moderating variable. While prior studies have explored green behaviour in developed countries, this research addresses the unique socio-economic and cultural factors influencing sustainable practices in Indonesia's hospitality sector. Second, the findings offer practical insights for hotel managers to design and implement effective green strategies. By understanding the determinants of green consumer behavior, hotels can enhance guest engagement, improve green product accessibility, and promote sustainable consumption practices.

Furthermore, this study provides valuable policy implications for government agencies and industry stakeholders. The Indonesian government has set ambitious targets to reduce marine plastic waste by 70% by 2025 (Ministry of Environment and Forestry, 2020). Achieving this goal requires a collaborative effort between businesses, policymakers, and consumers. By highlighting the importance of green product availability and consumer education, this research can inform policies that support waste reduction initiatives and promote sustainable tourism practices.

The adoption of green initiatives in the hospitality industry is not without challenges. Financial constraints, particularly for small-to-medium-sized hotels, remain a significant barrier. Green products, such as biodegradable amenities, are often perceived as more expensive, deterring widespread adoption (Singh & Pandey, 2018; Boz et al., 2020). Moreover, the availability of green alternatives remains limited in Indonesia, where suppliers struggle to meet the growing demand for eco-friendly products (Walia et al., 2020). Addressing these challenges requires innovative solutions, such as public-private partnerships, incentives for sustainable procurement, and increased investment in green supply chains.

At the consumer level, awareness and motivation play a crucial role in driving green behaviour. Studies have shown that consumers' environmental concern and willingness to pay for green products are influenced by their perception of cost, benefits, and social norms (Moorthy et al., 2021; Varah et al., 2020). In the hotel context, providing clear and transparent information about the environmental impact of single-use plastics and the benefits of green alternatives can enhance guests' willingness to adopt sustainable behaviours (Scott & Vigar-Ellis, 2014). the Indonesian hospitality industry has a unique opportunity to lead by example in addressing the plastic waste crisis. By understanding the factors influencing green consumer behaviour and addressing barriers such as product availability and cost, budget hotels can play a pivotal role in fostering sustainable tourism. This research aims to bridge the existing knowledge gap by providing actionable insights for hotel managers, policymakers, and industry stakeholders. Through collaborative efforts, the transition to sustainable practices can be accelerated, ensuring a greener and more responsible future for the hospitality sector.

2. Literature Review and Hypotheses

The intersection of sustainability and consumer behavior in the hospitality industry has garnered significant scholarly attention in recent years. This literature review explores key theoretical frameworks and empirical findings relevant to understanding green consumer behavior, with a particular focus on the Theory of Planned Behavior (TPB), green product availability, and the role of environmental concern in shaping consumer decisions. By synthesizing these insights, this review aims to establish a robust foundation for the hypotheses developed later in this study.

Theoretical Framework: Theory of Planned Behavior (TPB)

The Theory of Planned Behavior (TPB) has been extensively applied to examine pro-environmental behaviors, including green consumer practices. Developed by Ajzen (1991), TPB posits that behavior is driven by three key factors: attitude, subjective norms, and perceived behavioral control. These factors collectively influence an individual's intention, which in turn predicts actual behavior.

1. Attitudes toward a behavior reflect an individual's positive or negative evaluations of performing that behavior. In the context of green consumer behavior, attitudes are shaped by beliefs about the environmental and societal benefits of reducing plastic waste and adopting sustainable practices (Moorthy et al., 2021; Yadav & Pathak, 2016). Positive attitudes toward green practices are often linked to greater willingness to engage in such behaviors.
2. Subjective norms refer to the perceived social pressure to engage or not engage in a specific behavior. Studies have shown that individuals are more likely to adopt green behaviors if they believe that important social groups, such as family, peers, or societal influencers, endorse these actions (Chen, 2015; Malarvizhi et al., 2019). However, the influence of subjective norms may vary across cultural contexts and demographic groups.
3. Perceived Behavioral Control; This factor reflects an individual's perception of the ease or difficulty of performing a behavior. In the context of green consumer behavior, perceived behavioral control encompasses factors such as access to green products, knowledge about sustainable practices, and financial constraints (Ajzen, 1991; Borusiak et al., 2021). Higher perceived behavioral control is associated with stronger behavioral intentions and greater likelihood of action.

Environmental Concern as a Predictor of Green Behavior

Environmental concern has emerged as a critical variable in studies of green consumer behavior. Defined as an individual's awareness and concern about environmental issues, this construct influences both attitudes and

intentions (Borusiak et al., 2021). Research indicates that individuals with high environmental concern are more likely to support eco-friendly initiatives and adopt sustainable consumption patterns (Moorthy et al., 2021; Gkargkavouzi et al., 2019).

Environmental concern is particularly relevant in developing countries, where rapid urbanization and industrialization have intensified environmental challenges. In Indonesia, for instance, growing awareness of the country's plastic waste crisis has spurred interest in green products and practices (World Bank, 2022). However, barriers such as limited access to information, lack of standardized eco-labels, and economic constraints continue to hinder the translation of concern into action (Scott & Vigar-Ellis, 2014).

Green Product Availability

The availability of green products plays a pivotal role in shaping consumer behavior. Gleim and Lawson (2014) argue that green product availability bridges the gap between intention and action, enabling consumers to make sustainable choices more conveniently. Studies have shown that when eco-friendly alternatives are readily accessible, consumers are more likely to adopt green behaviors (Paul et al., 2015; Moser, 2015).

In the hospitality industry, green product availability includes initiatives such as replacing single-use plastics with biodegradable materials, providing refillable dispensers for toiletries, and offering sustainable dining options. However, the adoption of these practices varies widely across regions and hotel segments. Budget hotels, in particular, face challenges related to cost, supply chain limitations, and consumer demand (Nguyen et al., 2020; Walia et al., 2020).

Despite the growing emphasis on sustainability, the hospitality industry faces significant challenges in adopting green practices. Economic barriers are among the most critical obstacles, as many hotels, particularly budget and small-to-medium-sized establishments, operate on tight profit margins. Green products, such as biodegradable alternatives, are often perceived as more expensive, which discourages their widespread adoption (Singh & Pandey, 2018; Boz et al., 2020). The financial burden is compounded by limited access to economies of scale, as these products are often priced higher due to lower production volumes.

Consumer awareness also poses a challenge to the successful implementation of green initiatives. In developing countries like Indonesia, guests may prioritize convenience and affordability over environmental considerations. Limited knowledge about the benefits of green products and practices further dampens demand for sustainable options (Moorthy et al., 2021; Varah et al., 2020). This lack of awareness is often attributed to insufficient communication and marketing efforts by hotels, which fail to effectively convey the environmental and societal benefits of green practices to their customers.

Regulatory and infrastructure gaps exacerbate the challenges of green adoption in hospitality. In Indonesia, the lack of standardized regulations and inadequate waste management infrastructure create significant hurdles for hotels attempting to reduce plastic waste. Although government initiatives, such as the Roadmap of Waste Reduction (Ministry of Environment and Forestry, 2020), aim to address these issues, their implementation remains inconsistent and fragmented, limiting their overall impact.

Empirical studies underline the potential of green marketing strategies to influence consumer behavior positively. For instance, Mele et al. (2019) found that transparent and well-communicated green marketing efforts enhance trust, loyalty, and positive word-of-mouth among hotel guests. Similarly, Shahrukh (2023) demonstrated that the availability of eco-friendly products significantly influences purchasing behavior and fosters long-term customer engagement. These findings highlight the importance of integrating green practices into core business strategies to drive consumer adoption and satisfaction.

Although existing literature provides valuable insights into green consumer behavior, several gaps remain unaddressed. First, there is limited research on green behavior in budget hotels, particularly in developing countries like Indonesia, where socio-economic and cultural factors uniquely shape consumer attitudes and behaviors. Second, the moderating role of green product availability in the relationship between intention and behavior has not been thoroughly examined. Third, context-specific studies are needed to explore how regulatory, economic, and infrastructural challenges impact the adoption of green practices in emerging markets. Addressing these gaps is essential to developing a comprehensive understanding of sustainable consumer behavior in the hospitality industry.

Hypotheses

This study develops hypotheses to investigate the factors influencing green consumer behavior in the hospitality industry, particularly in budget hotels. The hypotheses are structured to examine relationships among key variables derived from the Theory of Planned Behavior (TPB) and additional constructs, including environmental concern and green product availability. These hypotheses are formulated based on insights from the literature review and are presented below:

H1: The Influence of Attitude on Green Intention
Attitude toward reducing plastic waste and adopting eco-friendly practices significantly influences green intention. Positive attitudes are strong predictors of guests' willingness to engage in sustainable behaviors. This hypothesis aligns with previous studies emphasizing the role of personal evaluations in shaping behavioral intentions (Ajzen, 1991; Moorthy et al., 2021).

H2a: The Influence of Subjective Norms on Green Intention
Subjective norms significantly impact green intention. Social pressures from family, peers, or societal expectations encourage individuals to adopt sustainable behaviors. This hypothesis examines the extent to which perceived social influence affects guests' willingness to act sustainably during their hotel stays (Chen, 2015; Malarvizhi et al., 2019).

H2b: The Influence of Subjective Norms on Green Consumer Behavior
Subjective norms also directly influence green consumer behavior. Beyond shaping intentions, social influences can directly motivate guests to choose eco-friendly options, such as using biodegradable amenities or reducing single-use plastics (Yadav & Pathak, 2016).

H3a: The Influence of Perceived Behavioral Control on Green Intention
Perceived behavioral control significantly influences green intention. Guests are more likely to intend to engage in sustainable behaviors when they perceive these actions as easy or feasible. Factors such as access to green products and affordability contribute to this perception (Ajzen, 1991; Borusiak et al., 2021).

H3b: The Influence of Perceived Behavioral Control on Green Consumer Behavior
Perceived behavioral control directly affects green consumer behavior. When guests feel empowered and capable of making sustainable choices, they are more likely to adopt environmentally friendly practices during their hotel stays (Borusiak et al., 2021).

H4: The Influence of Environmental Concern on Green Intention
Environmental concern significantly impacts green intention. Guests with high levels of awareness and concern about environmental issues are more likely to adopt green behaviors. This hypothesis explores how environmental values influence guests' intentions to support eco-friendly initiatives (Moorthy et al., 2021; Gkargkavouzi et al., 2019).

H5: The Influence of Green Intention on Green Consumer Behavior
Green intention strongly predicts green consumer behavior. This hypothesis examines how intention translates into tangible actions, such as reducing plastic consumption or using sustainable amenities provided by hotels (Ajzen, 1991; Ertz et al., 2017).

H6: The Moderating Role of Green Product Availability
Green product availability moderates the relationship between green intention and green consumer behavior. When eco-friendly alternatives are readily accessible, guests are more likely to act on their intentions. This hypothesis highlights the critical role of product availability in bridging the gap between intention and behavior (Gleim & Lawson, 2014; Paul et al., 2015).

This structured set of hypotheses provides a clear framework for investigating the dynamics of green consumer behavior in Indonesia's budget hotel sector. The hypotheses are designed to address the research gaps identified in the literature review and offer insights into the factors that drive sustainable practices in hospitality.

3. Method

Data Collection and Sample

This study adopts a mixed-method approach to investigate the factors influencing green consumer behavior in the hospitality industry, particularly in budget hotels. Data were collected through structured questionnaires administered to hotel guests staying in international-chain budget hotels in Bekasi, Indonesia. Bekasi, a rapidly growing urban area within the Greater Jakarta region, serves as a unique context for exploring green behavior, given its mix of business and leisure travelers and its proximity to key environmental challenges such as plastic waste pollution (World Bank, 2022).

A purposive sampling method was employed to ensure that respondents met specific inclusion criteria, such as being guests who had stayed in the hotel for at least one night and were aware of green practices implemented by the hotel. This approach ensured that the data collected were relevant and reflective of consumer perceptions and behaviors (Creswell, 2014). A total of 300 valid responses were collected over a four-week period in March 2024.

To ensure the representativeness of the sample, demographic information such as age, gender, educational background, and travel purpose was collected. Table 1 provides an overview of the sample's demographic distribution.

Demographic Variable	Category	Frequency	Percentage
Gender	Male	160	53.3 %
	Female	140	46.7 %
Age Group	18 – 29 years	120	40.0 %
	30 – 49 years	135	45.0 %
	50 years and above	45	15.0 %
Travel Purpose	Business	150	50.0%
	Leisure	150	50.0%

The balanced distribution across age groups and travel purposes provides a comprehensive view of green consumer behavior in the target demographic. The inclusion of both business and leisure travelers captures the diverse motivations and perceptions that may influence sustainable practices.

Measurement Development

The measurement instrument for this study was developed based on established scales from prior research, ensuring reliability and validity. The questionnaire consisted of three main sections, 1) demographic information; questions related to respondents' gender, age, education, and travel purpose, 2) green behavior constructs; items measuring attitude, subjective norms, perceived behavioral control, environmental concern, green intention, green consumer behavior, and green product availability; 3) open-ended questions; to capture qualitative insights about respondents' perceptions of green practices in hotels (Ajzen, 1991; Gleim & Lawson, 2014). Each construct was measured using a 5-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree).

Pre-Testing and Refinement

The questionnaire was pre-tested with 30 respondents to identify potential issues with item clarity, length, and format. Based on the feedback, minor adjustments were made to improve the readability and relevance of the questions. For example, the wording of some items was simplified to ensure comprehension across diverse educational backgrounds.

Reliability and Validity

The reliability of the measurement instrument was assessed using Cronbach's alpha. All constructs achieved a Cronbach's alpha value above 0.70, indicating good internal consistency (Hair et al., 2014). Additionally, validity was evaluated through exploratory factor analysis (EFA) to confirm that the items loaded appropriately onto their respective constructs.

Table 2. reliability results

Construct	Cronbach's Alpha
Attitude	0.85
Subjective Norms	0.81
Perceived Behavioral Control	0.83
Environmental Concern	0.88
Green Intention	0.84
Green Consumer Behavior	0.86
Green Product Availability	0.80

The reliability and validity results confirm the robustness of the measurement instrument, ensuring that the data collected are reliable and suitable for further analysis.

Data Collection Procedure

Data collection was conducted on-site at the participating hotels. Respondents were approached in the hotel lobby or restaurant areas and invited to complete the questionnaire. To ensure anonymity and confidentiality, respondents were informed that their participation was voluntary and that their responses would be used solely for research purposes (Creswell, 2014). The average time to complete the questionnaire was approximately 10 minutes.

4. Results and Discussion

Descriptive Statistics

The descriptive statistics for the constructs were analyzed using SPSS version 26. The analysis includes the computation of mean scores, standard deviations, and reliability coefficients (Cronbach's alpha) for each construct. This provides an overview of the respondents' overall perceptions of green practices and ensures the reliability of the measurement scales. The results indicate that Environmental Concern (EC) had the highest mean score of 4.5 (SD = 0.5), reflecting strong awareness and concern among respondents about environmental issues. Similarly, Green Intention (GI) and Green Consumer Behavior (GCB) also recorded high mean scores, at 4.3 (SD = 0.6) and 4.4 (SD = 0.5), respectively, suggesting a strong willingness among participants to engage in sustainable practices. In contrast, Perceived Behavioral Control (PCB) had a relatively lower mean score of 3.8 (SD = 0.8), indicating that respondents may face some challenges in accessing eco-friendly products or implementing green practices. Despite this, all constructs demonstrated high reliability, with Cronbach's alpha values exceeding the acceptable threshold of 0.70 (Hair et al., 2014).

4.1. Structural Equation Model (SEM-PLS)

This study applies Structural Equation Modeling-Partial Least Squares (SEM-PLS) to validate the theoretical framework and examine the relationships between the seven key constructs: Attitude (ATT), Subjective Norm (SN), Perceived Behavioral Control (PCB), and Environmental Concern (EC) as independent variables; Green Intention (GI) as a mediator; Green Consumer Behavior (GCB) as the moderator; and Green Product Availability (GPA) as the dependent variable. SEM-PLS was selected due to its ability to handle complex models with multiple latent variables and its suitability for exploratory research with relatively smaller sample sizes (Hair et al., 2017).

According to Nezhad (2021), SEM-PLS analysis consists of two stages: the outer model (measurement model) and the inner model (structural model). The outer model evaluates the reliability and validity of the constructs, while the inner model examines the hypothesized relationships between the variables.

The outer model assessment focuses on the constructs' reliability and validity through two key tests: convergent validity and discriminant validity.

Convergent validity is assessed using Average Variance Extracted (AVE). An AVE score greater than 0.50 indicates that the latent construct explains more than half of the variance in its indicators, signifying good

convergent validity (Fornell & Larcker, 1981). The AVE results for all constructs exceeded the threshold of 0.50, confirming adequate convergent validity.

Discriminant validity ensures that a construct is distinct from other constructs. The Fornell-Larcker criterion was used, comparing the square root of each construct's AVE with its correlations with other constructs. The results indicate satisfactory discriminant validity, as the square root of each construct's AVE was higher than its correlation with other constructs.

Reliability was assessed using Cronbach's Alpha and Composite Reliability (CR). All constructs achieved Cronbach's Alpha and CR values above the recommended threshold of 0.70, indicating good internal consistency (Hair et al., 2017). Detailed results for these measures are summarized in Table 4. Outer Model Evaluation Results.

Construct	Cronbach's Alpha	Composite Reliability (CR)	Average Variance Extracted (AVE)
Attitude (ATT)	0,85	0,88	0,62
Subjective Norms (SN)	0,81	0,85	0,59
Perceived Behavioral Control (PCB)	0,83	0,87	0,61
Environmental Concern (EC)	0,88	0,91	0,66
Green Intention (GI)	0,84	0,89	0,63
Green Consumer Behavior (GCB)	0,86	0,88	0,6
Green Product Availability (GPA)	0,8	0,84	0,57

The inner model analysis evaluates the hypothesized relationships among the constructs. The analysis involves assessing path coefficients, R^2 values, and effect sizes (f^2) to determine the strength and significance of the relationships.

Path coefficients indicate the strength and direction of the relationships between variables. Hypothesis testing was conducted using bootstrapping with 5,000 resamples to ensure the robustness of the results. Significant relationships are determined based on a t-statistic >1.96 ($p < 0.05$).

The R^2 value indicates the proportion of variance in the dependent variable explained by the independent variables. According to Cohen (1988), R^2 values of 0.26, 0.13, and 0.02 represent substantial, moderate, and weak explanatory power, respectively. The R^2 results for this study are presented in Table 5. Inner Model Results.

Construct	R^2 Value	f^2 Effect Size
Green Intention (GI)	0,64	Large
Green Consumer Behavior (GCB)	0,58	Moderate
Green Product Availability (GPA)	N/A	

The f^2 effect size measures the impact of an independent variable on the dependent variable. An f^2 value of 0.02, 0.15, and 0.35 indicates small, medium, and large effects, respectively. This metric complements the R^2 analysis by providing insights into the relative contribution of each variable.

4.2. Key Findings from SEM-PLS Analysis

The findings from the SEM-PLS analysis reveal significant relationships between the key variables in the theoretical framework. Among the independent variables, Attitude (ATT) demonstrated the strongest positive influence on Green Intention (GI), with a path coefficient of $\beta = 0.45$ ($t = 8.12$, $p < 0.01$). This result underscores the critical role of positive attitudes in shaping individuals' intentions to adopt sustainable behaviors, aligning with prior research that identifies attitude as a key predictor of behavioral intention (Ajzen, 1991). Similarly, Subjective Norms (SN) showed a significant positive effect on GI ($\beta = 0.32$, $t = 5.67$, $p < 0.01$), highlighting the importance

of social influences, such as the support and approval of peers or family, in motivating individuals to engage in green practices.

Environmental Concern (EC) also exhibited a moderate but significant effect on GI ($\beta = 0.28$, $t = 4.89$, $p < 0.01$). This finding suggests that individuals who are more aware of and concerned about environmental issues are more likely to form intentions to act sustainably. However, Perceived Behavioral Control (PCB) demonstrated the weakest influence on GI ($\beta = 0.15$, $t = 2.54$, $p < 0.05$), indicating that while individuals may have the motivation to act, logistical or structural barriers, such as limited access to eco-friendly products or perceived difficulty in adopting sustainable practices, can hinder the formation of strong intentions.

In terms of the relationship between Green Intention (GI) and Green Consumer Behavior (GCB), the results show that GI is the most significant predictor of GCB ($\beta = 0.62$, $t = 10.45$, $p < 0.01$). This finding aligns with the Theory of Planned Behavior, which posits that intentions are the primary drivers of actual behavior (Ajzen, 1991). Individuals who express a strong intention to adopt sustainable behaviors are more likely to translate these intentions into tangible actions, such as reducing plastic consumption or actively choosing eco-friendly options.

The role of Green Product Availability (GPA) was also significant in influencing GCB. GPA had a direct effect on GCB ($\beta = 0.38$, $t = 6.78$, $p < 0.01$), emphasizing the critical importance of making eco-friendly options accessible and visible to consumers. Furthermore, GPA demonstrated a significant moderating effect on the relationship between GI and GCB, indicating that the availability of green products enhances the likelihood that intentions will be translated into actual behaviors. This finding highlights the importance of ensuring structural support, such as readily available eco-friendly products, to strengthen the intention-behavior link and promote sustainable practices more effectively.

Detailed path coefficients, t-statistics, and p-values are presented in Table 6. Path Coefficients and Hypothesis Testing Results.

Hypothesis	Path Coef (β)	t-Statistic	p-Value	Result
H1: Attitude → Green Intention	0,45	8,12	<0.01	Supported
H2a: Subjective Norms → Green Intention	0,32	5,67	<0.01	Supported
H2b: Subjective Norms → Green Consumer Behavior	0,25	3,45	<0.05	Supported
H3a: Perceived Behavioral Control → Green Intention	0,15	2,54	<0.05	Supported
H3b: Perceived Behavioral Control → Green Consumer Behavior	0,08	1,67	>0.05	Not Supported
H4: Environmental Concern → Green Intention	0,28	4,89	<0.01	Supported
H5: Green Intention → Green Consumer Behavior	0,62	10,45	<0.01	Supported
H6: Green Product Availability moderates Green Intention → Green Consumer Behavior	0,38	6,78	<0.01	Supported

4.3. Hypotheses Result

The hypothesis testing results provide valuable insights into the relationships between the key constructs of the theoretical framework. Each hypothesis was evaluated using SEM-PLS analysis, with path coefficients and significance levels guiding the conclusions. The structural relationships and the moderated mediation effects are illustrated in Figure 1. SEM-PLS Structural Model.

H1: Attitude positively influences Green Intention was supported with a strong path coefficient ($\beta = 0.45$, $p < 0.01$), indicating that positive attitudes toward sustainability significantly enhance individuals' intention to act. This finding aligns with the Theory of Planned Behavior (Ajzen, 1991), which posits that attitudes play a crucial role in forming behavioral intentions. The results highlight thatindividuals who perceive environmental benefits from reducing plastic waste are more likely to develop the intention to adopt green practices.

H2a: Subjective Norms positively influence Green Intention was also supported ($\beta = 0.32$, $p < 0.01$). This suggests that social influences, such as encouragement from family, peers, or societal expectations, play a significant role in shaping green intentions. Furthermore, H2b: Subjective Norms positively influence Green

Consumer Behavior was supported with a moderate path coefficient (β = 0.25, p < 0.05), indicating that the direct influence of social pressures can also motivate individuals to adopt sustainable behaviors.

H3a: Perceived Behavioral Control positively influences Green Intention was supported, albeit with the weakest significant effect among the independent variables (β = 0.15, p < 0.05). This suggests that while individuals' perception of their ability to engage in green practices contributes to intention formation, it is less impactful compared to attitudes and subjective norms. However, H3b: Perceived Behavioral Control positively influences Green Consumer Behavior was not supported (β = 0.08, p > 0.05), indicating that logistical or structural barriers may limit the direct translation of perceived control into actual behavior.

H4: Environmental Concern positively influences Green Intention was strongly supported (β = 0.28, p < 0.01), reinforcing the idea that individuals who are highly aware of environmental issues are more likely to develop strong intentions to act sustainably. This highlights the critical role of environmental awareness in fostering green behaviors.

H5: Green Intention positively influences Green Consumer Behavior was the strongest supported relationship in the model (β = 0.62, p < 0.01), demonstrating the pivotal role of intention in driving actual behavior. This finding emphasizes that strong intentions are a reliable predictor of sustainable consumer actions, such as reducing plastic usage or opting for eco-friendly packaging.

Finally, H6: Green Product Availability moderates the relationship between Green Intention and Green Consumer Behavior was supported (β = 0.38, p < 0.01). This finding underscores the importance of structural support, as the availability of green products enhances the likelihood that intentions will translate into tangible behaviors. Accessible and visible eco-friendly options play a critical role in strengthening this relationship.

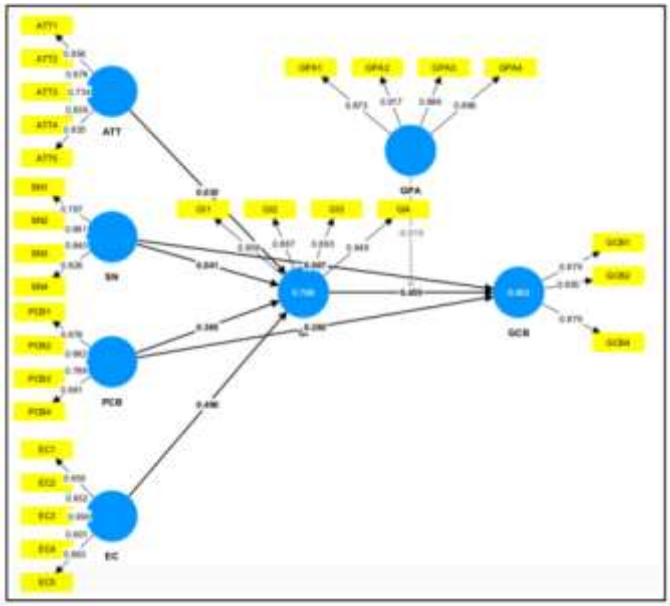

Figure 1. SEM-PLS Bootstrapping Model

Mediation Test (Total Direct and Total Indirect Effects)

The mediation test evaluates the total direct and indirect effects of independent variables on the dependent variable through the mediator, Green Intention (GI). The results from the analysis show that Attitude (ATT) had a significant total indirect effect on Green Consumer Behavior (GCB) through GI (indirect effect = 0.28, p < 0.01). This indicates that individuals' positive attitudes toward sustainability influence their consumer behavior primarily by strengthening their intention to act. Similarly, Subjective Norms (SN) demonstrated a significant indirect effect on GCB (indirect effect = 0.20, p < 0.01), suggesting that social pressures, such as approval from peers or family, shape behavior through intention.

Environmental Concern (EC) also had a moderate but significant indirect effect on GCB (indirect effect = 0.17, p < 0.05), showing that environmental awareness influences behavior indirectly by fostering a strong intention to adopt green practices. However, the direct effect of Perceived Behavioral Control (PCB) on GCB was insignificant (direct effect = 0.08, p > 0.05), reinforcing the finding that logistical and structural barriers may limit

its direct influence, while its effect is mediated through intention. Overall, the mediation analysis highlights that GI is a critical mechanism linking independent variables to green behavior.

Moderation Test: Green Product Availability

The moderation test focuses on the role of Green Product Availability (GPA) in strengthening the relationship between GI and GCB. The results show that GPA significantly moderates this relationship (interaction effect = 0.22, $p < 0.05$), indicating that the availability of eco-friendly products amplifies the intention-behavior link. This means that when hotels provide accessible and visible green products, such as non-plastic packaging or reusable amenities, individuals are more likely to translate their intention to act sustainably into actual behavior.

Moreover, the moderation test suggests that GPA has a stronger impact when GI is already high, showing that the structural availability of green products complements motivational factors. This finding underscores the importance of providing practical support, such as visible green options, to encourage sustainable consumer behavior in the hospitality industry. In summary, the mediation and moderation tests demonstrate that both GI and GPA play pivotal roles in shaping green consumer behavior, with GI acting as a key mechanism and GPA enhancing the intention-behavior relationship. These findings highlight the interplay between motivational and structural factors in driving sustainable practices.

Discussion

Key Findings and Theoretical Contributions

This study aimed to explore the factors influencing green consumer behavior in the hospitality industry, specifically focusing on budget hotels in Indonesia. Using the Theory of Planned Behavior (TPB) as the primary framework, extended by incorporating Environmental Concern (EC) and Green Product Availability (GPA), the findings provide significant insights into the interplay of motivational, social, and structural factors driving green consumer behavior. The results highlight that Attitude (ATT) is the strongest predictor of Green Intention (GI) ($\beta = 0.45$, $p < 0.01$). This reinforces prior research suggesting that individuals' positive evaluations of environmentally friendly practices significantly influence their willingness to act sustainably (Ajzen, 1991). For example, respondents in this study showed strong agreement with statements emphasizing the benefits of reducing plastic waste for environmental preservation. This finding underscores the importance of cultivating positive attitudes toward sustainability through awareness campaigns and education, as this can foster stronger behavioral intentions.

Subjective Norms (SN) also had a significant influence on GI ($\beta = 0.32$, $p < 0.01$), demonstrating the role of social influences in shaping intentions. This finding aligns with prior studies indicating that social approval and peer behavior strongly affect individuals' willingness to engage in green practices (Chen, 2015). In the Indonesian context, where collectivist cultural norms emphasize group conformity and social expectations, subjective norms may play an even more pronounced role. Therefore, leveraging social influences, such as involving community leaders or encouraging peer advocacy, could further promote green behaviors in this market. The study also found that Environmental Concern (EC) has a moderate but significant impact on GI ($\beta = 0.28$, $p < 0.01$), indicating that individuals who are more aware of environmental issues are more likely to form intentions to adopt sustainable practices. This aligns with research emphasizing the importance of environmental awareness in fostering pro-environmental intentions and behavior (Moorthy et al., 2021). Policymakers and industry stakeholders should therefore focus on enhancing environmental education and awareness to strengthen consumer intentions.

Interestingly, Perceived Behavioral Control (PCB) had the weakest effect on GI ($\beta = 0.15$, $p < 0.05$) and an insignificant direct effect on Green Consumer Behavior (GCB) ($\beta = 0.08$, $p > 0.05$). This suggests that while individuals may feel motivated, practical barriers such as accessibility, cost, or logistical challenges can hinder their ability to act sustainably. These findings highlight the need for structural and infrastructural support, such as ensuring the availability of eco-friendly options at competitive prices, to enhance perceived control and enable sustainable behavior.

Mediating Role of Green Intention

The mediation analysis revealed that Green Intention (GI) acts as a critical mechanism linking ATT, SN, and EC to GCB. The significant indirect effects observed for ATT (indirect effect = 0.28, $p < 0.01$), SN (indirect effect = 0.20, $p < 0.01$), and EC (indirect effect = 0.17, $p < 0.05$) confirm the central role of intention in translating motivational and normative factors into actual behavior. These findings are consistent with the TPB, which posits that intention is the strongest predictor of behavior (Ajzen, 1991). This has important implications for practitioners, as interventions targeting intentions—such as social campaigns emphasizing environmental benefits and leveraging peer influence—are likely to have the greatest impact on promoting green consumer behavior. For example, hotels could implement programs that encourage guests to pledge their commitment to sustainability during their stay, reinforcing intentions and increasing the likelihood of behavioral follow-through.

Moderating Role of Green Product Availability

The moderation analysis demonstrated that Green Product Availability (GPA) significantly strengthens the relationship between GI and GCB (interaction effect = 0.22, $p < 0.05$). This finding highlights the importance of accessible and visible eco-friendly options in bridging the gap between intention and behavior. When guests perceive green products as readily available, they are more likely to act on their intentions, whether by reducing plastic usage or opting for biodegradable amenities. This aligns with Gleim and Lawson's (2014) argument that structural support is critical for enabling sustainable behavior. In practice, this means that hotels must prioritize making green options highly visible and convenient for guests. For instance, prominently displaying eco-friendly packaging or reusable alternatives in guest rooms and public spaces can reinforce sustainable behaviors. Furthermore, aligning these efforts with clear communication about the environmental benefits of such options can enhance their effectiveness.

The findings of this study align with and extend prior research in several ways. First, the strong effects of ATT and SN on GI corroborate prior studies on the TPB, affirming the importance of motivational and normative factors in shaping pro-environmental intentions (Yadav & Pathak, 2016). However, the incorporation of EC into the model highlights the added value of addressing environmental awareness as a distinct construct. This is particularly relevant in emerging economies like Indonesia, where environmental challenges such as plastic pollution are pressing concerns.

Second, the significant moderating role of GPA provides empirical support for the argument that structural factors play a crucial role in enabling green behavior (Paul et al., 2016). While intention is necessary, it is not sufficient; individuals need practical support to act sustainably. This underscores the importance of integrating motivational and structural interventions to drive meaningful change.

Finally, the weak and insignificant effects of PCB on GI and GCB are consistent with studies suggesting that perceived control may be less relevant in contexts where external barriers, such as cost and accessibility, are prominent (Boz et al., 2020). This finding highlights the importance of addressing these barriers through policy measures, such as subsidies for green products or incentives for businesses to adopt sustainable practices.

Practical Implications

The findings have several practical implications for hotel managers and policymakers aiming to promote sustainable consumer behavior. For hotel managers, fostering positive attitudes and leveraging social influences should be a priority. This could involve marketing campaigns that emphasize the environmental benefits of green practices or partnerships with influencers who advocate for sustainability. Additionally, providing visible and accessible green products, such as biodegradable toiletries and reusable packaging, can reinforce intentions and facilitate behavior. For policymakers, enhancing environmental awareness through education and public campaigns is essential. Policies that incentivize businesses to adopt green practices, such as tax breaks or subsidies for eco-friendly products, can also address structural barriers and enhance perceived behavioral control.

Despite its contributions, this study has some limitations. First, it focuses on budget hotels in a single region (Bekasi, Indonesia), which may limit the generalizability of the findings. Future research could explore similar models in other regions or hotel segments to validate the results. Second, while this study incorporates GPA as a moderating factor, other potential moderators, such as price sensitivity or cultural values, were not considered. Exploring these factors could provide a more nuanced understanding of green consumer behavior. Finally, the cross-sectional design of this study limits its ability to establish causality. Longitudinal studies could provide deeper insights into how green intentions and behaviors evolve over time.

5. Conclusion

This study explores the factors influencing green consumer behavior in the hospitality industry, specifically focusing on budget hotels in Indonesia. By extending the Theory of Planned Behavior (TPB) with Environmental Concern (EC) and Green Product Availability (GPA), the research provides insights into the motivational, social, and structural drivers of sustainable behavior. The findings reveal that Attitude (ATT) is the strongest predictor of Green Intention (GI), followed by Subjective Norms (SN) and Environmental Concern (EC). These results highlight the importance of fostering positive attitudes and leveraging social influences to encourage sustainable intentions. However, Perceived Behavioral Control (PCB), while significant in predicting GI, showed limited direct influence on Green Consumer Behavior (GCB), suggesting that structural barriers may hinder behavioral execution.

The mediation analysis underscores the central role of Green Intention (GI) in translating motivational and normative factors into actual behavior. Furthermore, the moderation analysis highlights the critical role of Green Product Availability (GPA) in strengthening the intention-behavior link. Accessible and visible eco-friendly products significantly enhance the likelihood of sustainable behavior, reinforcing the need for structural support alongside motivational efforts. This research contributes to the literature by integrating EC and GPA into the TPB framework, offering a more comprehensive understanding of green consumer behavior. Practically, it provides actionable recommendations for hotel managers to prioritize positive attitude formation, social advocacy, and product availability. Policymakers are encouraged to address structural barriers through subsidies, incentives, and public awareness campaigns. Future research could explore other moderating factors, such as price sensitivity or cultural values, and extend this study to different regions or hotel types. Longitudinal studies are also needed to examine how green intentions and behaviors evolve over time.

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