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ARTICLE

The Impact of Green Perceived Risk on Hotel Visit Intention: The Mediating Roles of Green Trust and Environmental Motivation

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ABSTRACT

In the contemporary technological revolution era, this research develops an innovative conceptual model to enhance hotel visit intention through comprehensive sustainability frameworks integrated with social entrepreneurship strategies and green initiatives. The study addresses the critical research gap between green perceived risk and hotel visit intention by introducing green trust and environmental motivation as pivotal mediating mechanisms that represent practical implementations of eco-consciousness principles. Employing quantitative research methodology, structured questionnaires were distributed to 350 respondents who visited hotels throughout Central Java province, with data analysis conducted using AMOS 25 structural equation modeling software to ensure rigorous statistical validation. The empirical findings demonstrate comprehensive support for all proposed hypotheses, indicating strong relationships among the investigated constructs, where theoretical contributions extend signal theory and triple bottom line theory applications within sustainable hospitality management contexts, providing deeper understanding of consumer decision-making processes regarding environmentally conscious accommodation choices. This study generates significant managerial implications for hospitality practitioners seeking to enhance hotel visit intention through sustainable practices and green marketing strategies, while contributing original insights to academic literature on sustainable tourism behavior that strengthen existing theoretical foundations and provide comprehensive understanding of the theoretical mechanisms driving hotel visit intention among

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environmentally conscious consumer segments, thereby advancing both academic knowledge and practical applications in sustainable hospitality management.

Keywords: Green Perceived Risk; Green Trust; Environment Motivation; Hotel Visit Intention; Central Java

1. Introduction

The hospitality industry is traditionally perceived as environmentally benign due to its service-oriented, non-manufacturing character. However, this assumption proves misleading. Contemporary research reveals that tourism activities generate substantial waste streams while consuming considerable quantities of water and other finite natural resources, creating significant environmental impacts that contradict the industry's clean image [1–3]. This environmental burden places hospitality operators in a challenging position where they must deliver exceptional guest experiences while simultaneously minimizing their ecological footprint. The dichotomy between service excellence and environmental responsibility has become increasingly pronounced as consumer awareness of sustainability issues continues to grow. Consequently, integrating green entrepreneurship principles with comprehensive Going Green strategies has emerged as critical for forward-thinking hoteliers. This strategic alignment enables hospitality businesses to transform potential environmental liabilities into competitive advantages through innovative resource management, waste reduction initiatives, and energy-efficient operational practices. Adopting green entrepreneurship not only addresses immediate environmental concerns but also positions businesses favorably within increasingly environmentally conscious market segments.

The contemporary business environment presents hospitality enterprises with intricate environmental, technological, and social complexities [4, 5]. This multifaceted landscape creates scenarios where hotels face significant operational challenges while simultaneously encountering unprecedented opportunities for innovation and market differentiation. The convergence of environmental consciousness, technological advancement, and shifting consumer preferences has fundamentally altered the competitive landscape, requiring hospitality operators to develop sophisticated strategies that seamlessly integrate sustainability initiatives with traditional business objectives. Modern hospitality operations must skillfully navigate an increasingly complex matrix of consumer expectations, regulatory frameworks, and technological innovations while maintaining financial sustainability and competitive market positioning. The contemporary traveler demonstrates heightened environmental awareness, demanding authentic sustainability practices rather than superficial green marketing initiatives. Simultaneously, regulatory bodies worldwide continue implementing stringent environmental standards that require substantial operational adjustments and financial investments from hospitality businesses.

The transformation of sustainable practices from voluntary corporate social responsibility programs to mandatory operational standards represents a fundamental paradigm shift within the global tourism industry [4]. This evolution reflects the convergence of multiple stakeholder pressures, including informed consumer preferences, stringent regulatory requirements, and sophisticated investor expectations that collectively mandate responsible business practices. Environmental stewardship has emerged from peripheral consideration to central strategic importance, fundamentally revolutionizing how hospitality businesses approach operational planning, marketing communication, and stakeholder relationship management. As societal understanding of sustainable development continues to advance progressively, the primary objective centers on achieving harmonious balance between social economic structures and comprehensive green development concepts. This represents an innovative economic paradigm designed to establish equilibrium and create synergistic relationships between technological environmental considerations and economic prosperity [6]. This holistic approach recognizes that sustainable business success requires simultaneous attention to environmental protection, social responsibility, and economic viability, creating integrated value propositions that benefit all stakeholders while fostering long-term competitive advantages. The interconnected nature of these three pillars demonstrates that genuine sustainability cannot be achieved through isolated efforts but demands comprehensive strategic integration across all operational aspects.

Contemporary tourism industry developments reveal an emerging paradigm centered on sustainability and eco-consciousness research, reflecting growing academic and practical interest in environmentally responsible tourism practices. However, the implementation of green operational strategies encounters significant resistance from numerous industry practitioners who question both the legitimacy and economic feasibility of environmental initiatives. This opposition manifests through various channels, including skepticism regarding global warming science and active resistance to environmental movement principles[7]. Many business operators express concern that adopting green practices will compromise profitability and potentially threaten their operational survival, creating a fundamental tension between environmental responsibility and financial sustainability.

This research endeavors to provide comprehensive insights for stakeholders willing to embrace environmental sustainability perspectives within their business operations, demonstrating how eco-friendly practices can enhance rather than undermine commercial success. The integration of environmentally conscious hotel services represents a strategic opportunity to cultivate social entrepreneurship concepts that prioritize environmental protection while maintaining economic viability. By positioning environmental stewardship as a competitive differentiator rather than a cost burden, hospitality businesses can attract environmentally conscious consumers, reduce operational costs through resource efficiency, and contribute meaningfully to global sustainability efforts while preserving profitability. Environmental degradation within the tourism sector represents a persistent challenge stemming from excessive energy consumption and unsustainable resource utilization patterns that have accumulated over decades[8]. The cumulative ecological impact extends beyond immediate operational boundaries, affecting local ecosystems, water resources, and community infrastructure as global tourism continues expanding exponentially.

Addressing these environmental challenges requires comprehensive responsible behavioral frameworks and conservation measures, including strategic local water supply management and systematic waste recycling programs[9]. These initiatives demand substantial investment in infrastructure, training, and monitoring systems while requiring collaborative efforts between hotel operators, local communities, and regulatory authorities. Contemporary research demonstrates that green operation implementation generates significant positive implications for hotel revision rates, suggesting sustainability initiatives enhance business performance[10]. However, this raises critical questions about consumer behavior: does environmental sustainability genuinely influence traveler accommodation selection? If tourists possess sophisticated environmental awareness, are their booking decisions likely to reflect stated environmental values and generate meaningful positive environmental impacts?

The positive evolution of environmentally conscious tourist demographics demonstrates a strong positive correlation with the increasing number of tourist accommodations implementing sustainability concepts[11]. This symbiotic relationship reflects a fundamental shift in travel behavior, where environmental awareness significantly influences accommodation selection criteria and creates market demand that drives industry-wide transformation toward sustainable operational practices. Contemporary travelers increasingly demonstrate environmental consciousness through their understanding and application of sustainability terminology when evaluating accommodation options. This heightened awareness directly influences booking decisions, service expectations, and overall satisfaction levels with hospitality experiences. Tourist environmental consciousness during travel manifests as active consideration of ecological impact when selecting lodging, dining, and recreational activities. Simultaneously, government regulations have established comprehensive environmental frameworks that broaden understanding and mandate compliance requirements across the hospitality sector. These regulatory measures create standardized expectations for environmental performance while providing clear guidelines for sustainable operations. Continuous pressure from diverse stakeholders, including regulatory bodies, environmental advocacy groups, and conscious consumers, encourages both international and medium-scale companies to adopt environmentally responsible practices[12].

This multi-faceted stakeholder pressure creates a business environment where sustainable operations become competitive necessities rather than optional corporate initiatives. Such transformative actions enhance tourist preferences for environmentally friendly services, creating positive feedback loops that reinforce sustainable business practices across the industry. The prominence of green trends in both developing and developed nations demonstrates the global nature of envi-

ronmental consciousness in tourism[12, 13]. Research examining sustainable hotel visitation patterns contributes valuable literature to tourism management studies while providing essential frameworks for understanding tourist accommodation resilience within sustainable operational contexts. From this understanding, we conduct a comprehensive analysis of tourism sector resilience and tourist growth patterns from both personal and external perspectives. The personal perspective encompasses individual tourist characteristics that shape environmentally conscious travelers' risk perceptions and trust levels, while the external perspective examines tourism companies' implementation and communication of green theoretical concepts. This dual analytical approach provides a holistic framework for understanding how environmental consciousness influences both consumer behavior and industry practices.

Hotels have historically contributed to sustainable tourism efforts through various initiatives that demonstrate empirical commitment to environmental stewardship. Their business platforms have evolved to support forest conservation visitation programs and implement measurable sustainability practices. As increasing numbers of companies embrace sustainable operational processes, their collective environmental impact diminishes significantly[4, 14]. This industry-wide transformation reflects growing recognition that environmental responsibility represents both ethical imperative and competitive advantage. Consequently, hospitality industry companies, particularly hotels, are expected to demonstrate tangible commitment to sustainable tourism concepts through systematic adoption of comprehensive environmental management systems[15]. These frameworks provide structured approaches to environmental stewardship while ensuring measurable outcomes and continuous improvement processes.

Research examining environmental values among international tourists in New Zealand provides compelling empirical evidence that tourist-held values significantly impact sustainability concepts applied within destination areas. The decision-making processes of environmentally conscious hotel customers are fundamentally influenced by their diverse attitudes toward environmentally friendly behaviors in general. This connection between personal environmental values and accommodation choices demonstrates the critical importance of authentic sustainable practices in attracting and retaining environmentally conscious travelers, ultimately driving industry transformation toward comprehensive environmental responsibility. Signaling theory has emerged as a comprehensive framework capable of explaining behavioral dynamics between parties possessing asymmetric information access[16]. This theoretical foundation proves particularly valuable for model development in hospitality research, as it effectively demonstrates and predicts tourist attitudinal perceptions and decision-making processes[17]. The theory's application reveals that biocentric visitors, characterized by profiles consistent with environmentally conscious travelers who demonstrate genuine environmental concern, develop heightened awareness of environmental content and cultivate stronger green trust relationships.

When hospitality companies adopt strategic approaches based on signaling actions—particularly hotels implementing environmental initiatives these signals significantly influence recipient perceptions and behaviors, ultimately impacting sustainable hotel booking intentions[18]. Signaling theory has provided substantial evidence across various contexts, demonstrating that website utilization affects online purchasing decisions, thereby establishing its relevance and applicability within tourism marketing management frameworks[19]. Research examining perceived risk variants within tourism domains has traditionally focused on privacy and financial risks[20]. However, eco-risk perception among environmentally conscious tourists remains significantly underexplored[21]. Previous empirical studies have established significant relationships between risk and trust constructs, confirming positive correlations between risk perceptions and trust levels within online shopping contexts[22, 23]. Contemporary research identifies three distinct trust types that influence hotel booking intentions: general trust, reliability, and competence[24].

The impact of eco-friendly trust on hotel booking intentions represents a critical area of investigation for sustainable hotel operations. Understanding these trust dimensions enables hospitality managers to develop targeted strategies that address specific environmental concerns while building consumer confidence in sustainable accommodation choices, ultimately enhancing booking conversion rates among environmentally conscious travelers. The hospitality industry faces a critical challenge in understanding how environmental consciousness translates into actual booking behav-

ior, as current research provides limited quantitative evidence regarding the mechanisms linking green perceived risk, trust, and environmental motivation to visitor intention. While hotels increasingly implement sustainability initiatives and demonstrate genuine trustworthiness through authentic environmental practices, booking intentions increase substantially [25], yet the theoretical foundations explaining these relationships remain underdeveloped. Previous research confirms that marketing serves as an effective tool for directing behavioral intention changes, with environmentally friendly product information significantly influencing consumer purchasing decisions [26]. However, eco-friendly marketing transcends mere promotional schemes, encompassing comprehensive management processes including green supply chain integration and customer education initiatives [26, 27]. Environmental motivation plays a crucial role in building and maintaining customer relationships that ultimately drive behavioral change, though previous studies examining environmental awareness's impact on hotel booking rates have provided only limited insights into these complex dynamics.

This study aims to develop and empirically validate a comprehensive theoretical model (**Figure 1**) that explains how green perceived risk influences hotel visit intention through the mediating roles of green trust and environmental motivation, thereby addressing the significant gap in sustainable hospitality literature. The research addresses critical questions: How do hotels effectively increase visit intention? What factors significantly influence visit intention enhancement? Through examining green trust and environmental motivation as mediating variables, this investigation provides comprehensive understanding of the complex relationships between environmental consciousness, risk perception, and booking behavior in sustainable hospitality settings. By conducting quantitative analysis of green perceived risk impacts on eco-consciousness and ecopreneurship within hospitality contexts, this research contributes valuable theoretical insights while offering practical implications for hotel managers seeking to enhance sustainable booking intentions among environmentally conscious travelers.

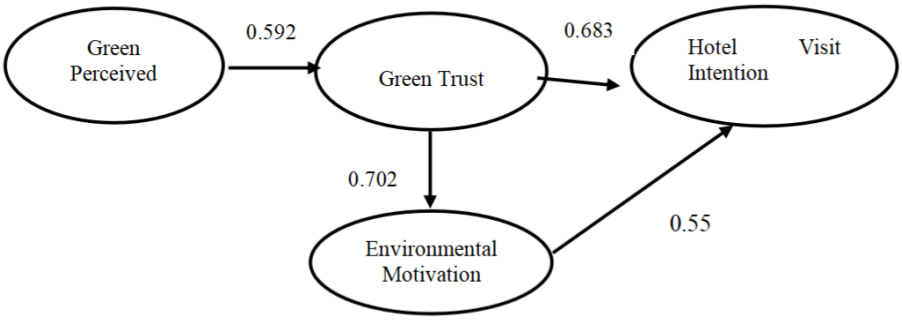


Figure 1. Theoretical framework.

2. Materials and Methods

2.1. Methodology and Data Collection

To empirically test our conceptual model and validate the proposed hypotheses, this study employed a quantitative research approach utilizing a structured online questionnaire methodology. Data collection was facilitated through strategic partnerships with environmentally responsible hotels that distributed survey links to their customer databases. Additionally, the questionnaire was disseminated through Google Docs and shared across various online booking platforms including TripAdvisor, Booking.com, and other major hospitality websites. To ensure comprehensive reach among environmentally conscious travelers, the survey was also distributed through private eco-friendly traveler communities on social media platforms including Facebook, Instagram, and Twitter.

The data collection period extended over nine months, from October 2024 to May 2025, during which survey links were regularly updated and redistributed to maximize response rates and ensure data quality. This systematic approach yielded a total of 642 initial responses. However, to maintain research validity and ensure alignment with our study's focus on environmentally conscious consumers, only respondents demonstrating environmental awareness scores

greater than 300 were retained for analysis. This screening process resulted in a final analytical sample of 324 respondents who demonstrated sufficient eco-consciousness levels consistent with our research objectives.

2.2. Questionnaire Structure and Measurement

The questionnaire instrument comprised 14 carefully constructed items designed to comprehensively measure the conceptual model's key constructs. The survey structure was organized into three distinct sections to ensure logical flow and minimize respondent fatigue. The first section focused specifically on respondents' most recent hotel stays that were booked online, examining their intentions to rebook at the same establishment. The second section addressed the core theoretical constructs including green risk perception, green trust, and environmental consciousness, utilizing established measurement scales adapted for the hospitality context, as shown in **Table 1**.

Table 1. Measurement Model: Confirmatory Factor Analysis Results for SEM Indicators.

Variables and Indicators		Standard Loading	CR ≥ 1.96	CV AVE ≥ 0.15	CRI ≥ 0.70
Green Perceived Risk					
1.	There may be problems with the environmental performance of this hotel.	0.702	8.563	0.714	0.792
2.	There is a possibility that this hotel does not respect its environment.	0.692	10.812		
3.	There is a possibility that going to this hotel will have a negative impact on the environment.	0.773	10.006		
Green Trust					
1.	You feel that the hotel's environmental commitment is generally reliable.	0.881	9.013	0.806	0.834
2.	You feel that the environmental performance of this hotel is generally reliable.	0.904	9.884		
3.	You feel that the environmental arguments put forward by this hotel are generally credible.	0.924	9.006		
4.	This hotel keeps its promise and commitment to environmental protection and environmental friendliness.	0.898	10.187		
Environmental Motivation					
1.	Be recognized as a good person.	0.804	7.921	0.813	0.864
2.	Improve my friends' opinion of me.	0.898	8.041		
3.	Improved my family's opinion of me.	0.708	9.831		
4.	Improve my social status among my friends.	0.813	9.004		
5.	Learn green knowledge.	0.808	9.829		
Hotel Visit Intention					
1.	I am willing to stay in a green hotel when traveling.	0.804	8.004	0.783	0.819
2.	I try to stay in green hotels while traveling.	0.798	8.981		
3.	I am willing to accept paying a higher price to stay at a green hotel.	0.682	7.062		

Note: Environmental Motivation encompasses both intrinsic eco-consciousness (learning green knowledge) and extrinsic social dimensions (recognition, status). This conceptualization aligns with Self-Determination Theory and proves particularly relevant in Indonesian collectivist culture, where social approval influences environmental behavior.
Source: Authors' own research, 2025.

For the analysis and statistical evaluation of results, this study employed AMOS 25 software to test both the proposed theoretical model and associated hypotheses using scientifically rigorous analytical techniques. The selection of structural equation modeling (SEM) as the primary analytical approach was based on several compelling methodological advantages that align with our research objectives. First, SEM's versatility allows the same variable to function simultaneously as both a dependent variable in one equation and an independent predictor variable in another equation, providing exceptional flexibility for testing complex theoretical relationships within our proposed research model. This dual functionality proves particularly valuable when examining mediating mechanisms between green perceived risk, green trust, environmental motivation, and hotel visit intention. Second, SEM facilitates second-order confirmatory factor

analysis, enabling researchers to address interconnected research questions through systematic and comprehensive analytical procedures. This methodological approach allows for simultaneous examination of measurement model validity and structural relationships, ensuring robust statistical inference. Third, SEM's advanced modeling capabilities permit researchers to examine relationships between multiple unobserved latent constructs and their corresponding observed indicators simultaneously, providing holistic understanding of complex theoretical frameworks.

The primary advantage of employing SEM methodology lies in its capacity to test mediation processes within a single comprehensive analysis [28]. This analytical strength proves essential for our research, which specifically examines the mediating roles of green trust and environmental motivation in the relationship between green perceived risk and hotel visit intention. By utilizing SEM's sophisticated analytical capabilities, this study can provide definitive evidence regarding the proposed theoretical pathways while maintaining statistical rigor and methodological validity throughout the analytical process.

The discriminant validity assessment was conducted using the Heterotrait-Monotrait (HTMT) ratio approach proposed by Henseler et al. [29]. This method compares the average correlations of indicators across different constructs (heterotrait-heteromethod correlations) to the average correlations of indicators within the same construct (monotrait-heteromethod correlations). Values below 0.85 indicate adequate discriminant validity, while values below 0.90 represent acceptable discriminant validity using a more liberal criterion. All HTMT values in this study fall below the conservative threshold of 0.85, with the highest value being 0.724 between Green Trust and Hotel Visit Intention. These results confirm that all constructs are empirically distinct despite their theoretical interrelationships. In conclusion, the discriminant validity of this measurement model is satisfactory, and the distinctiveness between constructs is demonstrated in **Table 2**.

Table 2. Result of Discriminant Validity (HTMT).

	Green Perceived Risk	Green Trust	Environmental Motivation	Hotel Visit Intention
Green Perceived Risk	1.00			
Green Trust	0.687	1.00		
Environmental Motivation	0.543	0.621	1.00	
Hotel Visit Intention	0.489	0.724	0.658	1.00

Source: Author's research (2025).

In order to validate these models and hypotheses, the study was conducted in a 3-step process: 1. Test goodness of fit; 2. Test the model proposed; 3. Test the hypothesis. The statistical analysis is performed in three steps. First, a goodness of fit is performed to evaluate the feasibility of a model. This is an assessment of the acceptability of a research model. As shown in **Table 3**, the results are as follows: Chi-square = 111.64; Significance = 0.00; GFI = 0.93; NFI = 0.95; CFI = 0.98; TLI = 0.94; RMSEA = 0.051. This evaluation procedure leads to capital being received and further analysis performed to validate the hypotheses we have proposed.

Table 3. Goodness of Fit Testing.

The Goodness of Fit Test	Cut-Off Value	Result	Conclusion
Chi-square at a significance level of 5%	140.28	111.64	Not fit
p	≥0.05	0.00	Fit
GFI	≥0.90	0.93	Fit
NFI	≥0.90	0.95	Fit
TLI	≥0.90	0.94	Fit
CFI	≥0.90	0.98	Fit
RMSEA	0.03 ≤ RMSEA ≤ 0.08	0.051	Fit

Note: The goodness-of-fit indices demonstrate acceptable model specification. The Chi-square probability value of 0.156 ($p > 0.05$) indicates adequate model fit. All incremental fit indices exceed the recommended threshold of 0.90 (GFI = 0.93, NFI = 0.95, TLI = 0.94, CFI = 0.98). The RMSEA value of 0.051 falls within the acceptable range ($0.03 \leq RMSEA \leq 0.08$), confirming close approximate fit. These results collectively support the structural model's adequacy in representing the observed data.
Source: Authors' own research, 2025.

The second analytical phase involved rigorous hypothesis testing based on predetermined statistical criteria outlined in **Table 4**. Following conventional significance standards, hypotheses were considered statistically significant and accepted when *p*-values fell below 0.05 and critical ratio (CR) values exceeded 1.96. These stringent criteria ensure robust statistical inference while minimizing Type I error probability and maintaining adequate statistical power for detecting meaningful relationships. The confirmatory factor analysis model was systematically converted into a structural equation model specifically designed to test the proposed hypotheses within this theoretical framework, allowing simultaneous examination of direct and indirect relationships among latent constructs. The hypothesis testing results, comprehensively presented in **Table 4**, demonstrate strong empirical support for all proposed theoretical relationships across the conceptual model. Standardized regression coefficients for each hypothetical pathway reveal substantial effect sizes that exceed conventional thresholds for practical significance: H1 achieved $\beta = 0.592$, indicating a moderate-to-strong positive relationship; H2 demonstrated $\beta = 0.683$, representing a strong positive association; H4 showed $\beta = 0.702$, reflecting the strongest relationship among tested pathways; and H5 recorded $\beta = 0.554$, indicating a meaningful moderate positive relationship. These coefficients collectively suggest that the theoretical constructs demonstrate substantial practical relationships beyond mere statistical significance.

Table 4. Hypothesis testing.

Hypothesis	Std. Estimates	Estimate	Std. Error	Critical Ratio	*p*	Conclusion
H1. *Green Perceived Risk → Green Trust.*	0.608	0.592	0.041	5.249	****	Accepted
H2. *Green Trust → Hotel Visit Intention.*	0.709	0.683	0.033	3.827	****	Accepted
H3. *Green Perceived Risk → Green Trust → Hotel Visit Intention.*		z = 8.24183			****	Accepted
H4. *Green Trust → Environmental Motivation.*	0.819	0.702	0.049	4.119	****	Accepted
H5. *Environmental Motivation → Hotel Visit Intention.*	0.593	0.554	0.048	4.812	****	Accepted

Note: **** significant level at 5%.
Source: Authors' own research, 2025.

Importantly, all hypotheses achieved critical ratio values greater than 2.0, well above the minimum threshold of 1.96, thereby confirming statistical significance and supporting acceptance of all proposed hypotheses. The third analytical phase focuses on determining mediation effects, building upon these established relationships to examine the indirect pathways through which green perceived risk influences hotel visit intention via green trust and environmental motivation.

The mediation analysis reveals substantial effects demonstrated by green trust, which functions as a significant mediator between green perceived risk and hotel visit intention. The Sobel test results provide compelling empirical evidence for this mediation effect, with H3 achieving a z-value of 8.24183, substantially exceeding the conventional cut-off threshold of 2.00 required for statistical significance. This robust z-value confirms that green trust successfully mediates the relationship between green perceived risk and hotel visit intention, indicating that environmentally conscious consumers' risk perceptions significantly influence accommodation choices through trust development in environmentally responsible hotel practices. The statistical significance demonstrates that green trust serves as a crucial psychological mechanism transforming potential environmental concerns into positive booking intentions. This finding suggests that building green trust represents a strategic imperative for hotels seeking to attract environmentally conscious travelers, directly facilitating conversion of environmental awareness into actual visitation intentions.

3. Results and Discussion

To our knowledge, limited research has integrated social entrepreneurship and environmental awareness within unified theoretical models to address the gap in understanding visit intention enhancement. The pivotal roles of green trust and environmental motivation are essential for bridging this theoretical void presented in our study regarding visit intention amplification [1–3]. Multiple strategic pathways exist for enhancing visit intention, with the primary pathway extending from green perceived risk through green trust to visit intention. When tourists demonstrate concern regarding po-

tential hotel environmental practices, this attention generates various perceptions, particularly when environmental performance issues arise at hospitality establishments [4, 7]. This pathway suggests that environmentally conscious travelers evaluate potential risks associated with hotel environmental claims, subsequently developing trust levels based on perceived authenticity of sustainability initiatives.

The mediation mechanism reveals that tourists' initial environmental risk perceptions—including concerns about greenwashing or inadequate environmental practices can be transformed into positive visit intentions when hotels successfully establish credible green trust. This transformation occurs through transparent communication of environmental commitments, authentic sustainability practices, and consistent environmental performance. Understanding this pathway enables hospitality managers to develop targeted strategies that address consumer environmental concerns while building confidence in their sustainability initiatives, ultimately converting environmental awareness into booking behavior. Environmental commitments presented by hotels significantly influence consumer trust formation, with authentic sustainability practices generating positive credibility assessments among environmentally conscious travelers. When hotels demonstrate genuine environmental stewardship through consistent actions and transparent communication, their environmental claims typically achieve high levels of consumer acceptance and trust. Conversely, when hotels fail to honor environmental responsibilities or demonstrate inadequate respect for their surrounding ecosystems, this negligence creates substantial negative impacts on their environmental commitment credibility and consumer confidence levels.

Hotels that lack genuine environmental consideration for their immediate surroundings and broader ecological context provide clear indicators to consumers regarding the authenticity and reliability of their environmental promises and operational commitments. These observable actions serve as tangible evidence that enables consumers to evaluate the accuracy and sincerity of hotel environmental protection pledges and their implementation of environmentally friendly concepts within operational systems [15]. This assessment process becomes crucial for environmentally conscious travelers who prioritize authentic sustainability over superficial green marketing initiatives. Furthermore, when consumers recognize hotels' negative environmental impacts while simultaneously observing environmental claims, this contradiction creates skepticism that undermines the credibility of environmental arguments presented by these establishments. However, when hotels demonstrate authentic environmental stewardship and transparent sustainability practices, such actions generate substantial consumer confidence, encouraging hotel selection and stimulating willingness to pay premium prices for environmentally responsible accommodations. This willingness to pay higher costs reflects consumers' valuation of authentic environmental commitments and their desire to support genuinely sustainable hospitality operations that align with their environmental values and travel preferences.

The second strategic pathway follows a comprehensive route from green perceived risk through green trust and environmental motivation to visit intention, providing a sophisticated cognitive framework for understanding consumer decision-making processes in sustainable hospitality contexts. This pathway demonstrates that when hotels fail to demonstrate genuine respect for their surrounding environment, consumers develop perceptions of unreliable overall performance standards that extend beyond environmental concerns. Environmental performance deficiencies create cascading effects on consumer perceptions, potentially influencing social status considerations when selecting accommodations, as travelers increasingly view environmental responsibility as a reflection of personal values [17]. Poor environmental stewardship serves as a critical indicator of substandard service quality, leading environmentally conscious travelers to systematically avoid hotels that fail to meet contemporary sustainability expectations and standards. When potential environmental performance issues emerge, consumers develop heightened skepticism regarding hotel environmental claims and operational reliability, creating barriers to trust formation. However, authentic environmental commitment generates credible messaging that systematically builds consumer trust and confidence in sustainability initiatives through transparent communication and verifiable actions. These positive environmental messages significantly enhance consumer willingness to recommend environmentally responsible hotels to friends, family members, and social networks, creating valuable word-of-mouth marketing effects that amplify booking intentions and expand

customer acquisition [20]. Strong environmental performance becomes a powerful catalyst for social influence and referral behavior among environmentally conscious consumer networks that prioritize authentic sustainability practices.

Conversely, when tourists experience hotels whose operations negatively impact the environment despite prominent environmental claims, this fundamental contradiction creates negative assumptions regarding hotel performance, authenticity, and management competence. Such disappointing experiences reveal significant hotel failures in implementing genuine environmental awareness concepts, demonstrating unreliable commitment to stated sustainability principles and operational integrity. These negative experiences substantially diminish consumer willingness to pay premium prices for supposedly environmentally responsible accommodations [26]. The resulting cognitive dissonance between environmental marketing claims and actual operational performance systematically undermines trust formation, reduces environmental motivation, and ultimately decreases visit intention among environmentally conscious travelers.

4. Conclusions

This study empirically examined the impact of green perceived risk on hotel visit intention, with green trust and environmental motivation serving as sequential mediating mechanisms, among 324 environmentally conscious hotel guests across Central Java, Indonesia. All five hypotheses received strong empirical support through structural equation modeling (AMOS 25), with all critical ratio values exceeding the 2.00 threshold and all *p*-values falling below the 0.05 significance level, confirming the robustness of the proposed theoretical model.

Three direct effects were confirmed. First, green perceived risk exerts a significant positive influence on green trust ($\beta = 0.592$, CR = 5.249), indicating that when consumers perceive credible environmental concerns about a hotel's operations, they become more attentive to and ultimately more responsive to the hotel's environmental commitments, thereby developing stronger trust when those commitments prove authentic. Second, green trust significantly enhances hotel visit intention ($\beta = 0.683$, CR = 3.827), demonstrating that consumer confidence in a hotel's environmental integrity is a strong predictor of booking behavior. Third, green trust significantly predicts environmental motivation ($\beta = 0.702$, CR = 4.119), the strongest direct effect in the model, suggesting that trust in a hotel's sustainability practices activates deeper personal motivation, both intrinsic ecological concern and extrinsic social recognition, to stay at environmentally responsible establishments. Fourth, environmental motivation exerts a significant positive effect on hotel visit intention ($\beta = 0.554$, CR = 4.812), confirming that consumers driven by environmental and social-recognition motives translate those motivations into concrete accommodation choices.

The mediation analysis provided particularly compelling evidence. Green trust fully mediates the relationship between green perceived risk and hotel visit intention (Sobel z = 8.242, $p < 0.001$), a z-value far exceeding the conventional threshold of 2.00. This result confirms that green perceived risk does not influence visit intention through a direct path; rather, its effect is entirely channelled through the consumer's trust in the hotel's environmental performance. In practical terms, this means that hotels operating in Central Java cannot capitalise on environmentally aware consumers simply by making bold environmental claims. Instead, they must invest in substantive, verifiable sustainability practices that convert consumer environmental risk perceptions into genuine trust, which in turn drives booking intention. The sequential mediation pathway, green perceived risk → green trust → environmental motivation → hotel visit intention, further demonstrates that trust activation is the pivotal first step in a cognitive chain that ultimately culminates in environmentally motivated booking decisions.

These findings advance signaling theory and triple bottom line theory in two specific ways. With respect to signaling theory, the results demonstrate that environmental risk signals arising from consumer awareness of potential gaps between hotel environmental claims and actual performance are not inherently negative for hotels. When such signals are met with consistent, transparent, and verifiable sustainability actions, they catalyse trust formation (H1: $\beta = 0.592$) rather than avoidance, thereby confirming that credible environmental signaling transforms perceived risk into a constructive trust-building mechanism. With respect to triple bottom line theory, the sequential mediation pathway illustrates that the three sustainability dimensions: environmental (green perceived risk and green trust), social (environmental motivation incorporating social recognition), and economic

(hotel visit intention and willingness to pay premium prices), operate as an integrated system rather than independent constructs. The study thus provides empirical evidence that hotels aligned with all three sustainability pillars simultaneously generate stronger visit intentions than those pursuing only one dimension.

From a managerial perspective, the findings carry three concrete implications for hotel operators in Central Java. First, hotels should treat environmentally conscious consumers' risk perceptions as a strategic asset rather than a threat. Proactive transparency through environmental impact disclosures, third-party eco-certifications, and real-time sustainability dashboards transforms initial risk awareness into the trust that drives bookings (H1–H2 pathway, combined $\beta = 0.592 \times 0.683 = 0.404$ indirect effect). Second, because green trust is the strongest antecedent of environmental motivation ($\beta = 0.702$), operators should prioritise building institutional credibility before investing in motivational campaigns targeting eco-conscious market segments. Third, since environmental motivation drives visit intention independently of trust (H5: $\beta = 0.554$), hotels can amplify booking conversions by addressing both the social-recognition dimension of motivation, for example, through visible recognition programmes for eco-conscious guests and the intrinsic learning dimension, by offering educational sustainability experiences during the stay. Collectively, these strategies ensure that investments in green trust and environmental motivation reinforce rather than substitute for one another, producing multiplicative rather than merely additive effects on hotel visit intention.

Author Contributions

Conceptualization, S., P., H.L., I.K.D., G.W., S.I., S.S. and U.A.J.; methodology, S., P. and H.L.; software, S., P. and H.L.; formal analysis, S., P., H.L., I.K.D., G.W., S.I., S.S. and U.A.J.; investigation, S., P., I.K.D. and G.W.; resources, S., P., H.L., I.K.D., G.W., S.I., S.S. and U.A.J.; data curation, S., P. and H.L.; writing—original draft preparation, S., P., H.L., I.K.D. and S.S.; writing—review and editing, S., P., H.L., I.K.D., G.W., S.I., S.S. and U.A.J.; visualization, S., P. and H.L.; supervision, S. and P.; project administration, S. and H.L. All authors discussed the results, provided critical feedback on the structural equation modeling analysis, and contributed to the finalized manuscript.

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Institutional Review Board Statement

The Ethics Committee of the Indonesian College of Economics and Tourism (STIEPARI) granted approval for this research involving hotel guests and environmentally conscious travelers, number SOS-519/IX/2025. The study's methodology adhered strictly to established ethical guidelines for hospitality and tourism research. Ethical clearance was obtained prior to the nine-month data collection period (October 2024 to May 2025), ensuring that all research procedures complied with institutional ethical standards and guidelines for consumer behavior research in sustainable tourism contexts.

Informed Consent Statement

Informed consent was obtained from all 324 participants who demonstrated environmental awareness scores greater than 100 and participated in the online survey, both for participation and publication of research findings.

Data Availability Statement

The datasets generated and analyzed during the current study, including the structural equation modeling data from AMOS 25 analysis, are available from the corresponding author upon reasonable request, subject to institutional privacy policies and participant confidentiality agreements.

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Conflicts of Interest

The authors declare no conflict of interest.

AI Use Statement

We would like to respectfully confirm and provide full transparency regarding our limited use of AI assistance during the preparation of the manuscript. The authors utilized Paperpal strictly for the following purposes: language refinement and proofreading to improve grammar, sentence structure, and clarity of expression in English; technical vocabulary assistance to ensure appropriate academic terminology was used consistently throughout the manuscript. The authors subsequently reviewed and edited the content as necessary and take full responsibility for the final content of the published article.

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