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THE ROLE OF GREEN ACCOUNTING AND CORPORATE SOCIAL RESPONSIBILITIES TO IMPROVE MARITIME TOURISM QUALITY IN INDONESIA

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Abstract

Indonesia's maritime tourism holds vast potential for sustainable economic development. However, infrastructure limitations, environmental degradation, and funding constraints—particularly in emerging destinations like Likupang, North Sulawesi—pose significant challenges to realizing this potential. This study explores how the integration of green accounting and corporate social responsibility (CSR) practices can serve as strategic tools for enhancing tourism quality in maritime regions. Adopting a mixed-methods research design, this study employed the Travel Cost Method (TCM) to quantify the economic value of tourism based on primary data collected through structured surveys and in-depth interviews with 160 respondents, including tourists and tourism operators in Likupang. Findings reveal that travel cost, monthly income, educational attainment, population origin, and leisure time significantly influence tourism demand. Conversely, working hours per week were not a determining factor. Additionally, perceived weaknesses in tourism infrastructure—such as lack of sanitation facilities and accommodation—highlight the urgent need for targeted CSR initiatives. The regression model illustrates a strong relationship between economic variables and tourism demand, supporting the implementation of green accounting frameworks to determine CSR investment thresholds for private sector stakeholders. This research contributes to the theoretical development of environmental accounting in tourism economics and offers empirical evidence on its practical application in developing countries. The study concludes that CSR-based green accounting can help standardize cost-effective, environmentally responsible tourism development—bridging the financial gap typically filled by government expenditure. These insights are crucial for policymakers, industry leaders, and researchers committed to sustainable destination management.

Keywords: Green Accounting, CSR, Maritime Tourism, Travel Cost Method, Sustainable Destination.

1. INTRODUCTION

Tourism, as one of the world's fastest-growing economic sectors, has shown remarkable resilience and capacity for transformation, especially in the face of climate change and sustainability imperatives (Gössling & Higham, 2021). Coastal and maritime tourism in particular represents a vital economic driver for many developing nations, offering both natural allure and cultural richness. However, the rapid expansion of tourism has often come at the cost of environmental degradation, inadequate infrastructure, and increasing pressure on fragile ecosystems (UNWTO, 2022). Within this context, green accounting and corporate social responsibility (CSR) have emerged as crucial frameworks for balancing economic growth with ecological sustainability (Bebbington & Larrinaga, 2014). The integration of environmental

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accounting into tourism economics is increasingly seen as a strategic necessity rather than a voluntary act of goodwill.

Despite global awareness of sustainable development goals (SDGs), many tourism destinations in the Global South—particularly in Indonesia—remain underfunded and lack systemic tools to capture, quantify, and manage the real costs of tourism. The case of Likupang, a nationally prioritized maritime destination in North Sulawesi, highlights the consequences of limited government budgets and the absence of private sector accountability mechanisms. While CSR has been mandated by Indonesian regulation (UU No. 40/2007), there is still insufficient clarity on how private firms should determine the value and allocation of their CSR contributions in environmental contexts. The lack of methodological approaches to align CSR with environmental valuation—particularly in tourism development—represents a major research gap (Rhou & Singal, 2020).

Prior research has acknowledged the role of green accounting in enhancing environmental performance and transparency (Burritt & Schaltegger, 2010; de Beer & Friend, 2006), and the impact of CSR in fostering stakeholder trust and community engagement in tourism (Font et al., 2017; Dmytriyev et al., 2021). However, studies combining both frameworks to evaluate economic valuation methods for tourism-related CSR investment remain limited. Empirical models using the Travel Cost Method (TCM) to derive monetary value from recreational sites have been widely applied in environmental economics (Fleming & Cook, 2018; Bakhtiari et al., 2020), but few have translated such valuation into CSR metrics for private industry participation. Moreover, literature on CSR in Southeast Asian tourism contexts often lacks integration with environmental accounting models (Lee & Jan, 2019), creating an opportunity for innovation in methodological design and practical application.

This study aims to examine the role of green accounting in quantifying tourism-related environmental costs and aligning them with CSR allocations by private companies operating near maritime destinations. Specifically, the research addresses how the Travel Cost Method (TCM) can be used as a valuation tool to determine the appropriate levels of CSR investment necessary to enhance tourism quality in underdeveloped coastal regions of Indonesia. The central research questions are: (1) What are the key socioeconomic factors influencing tourism demand in priority maritime destinations such as Likupang? and (2) How can economic valuation models guide CSR allocation through green accounting frameworks?

This study contributes both theoretically and practically. From an academic perspective, it bridges the gap between tourism economics, environmental accounting, and CSR implementation—areas that have largely been treated as separate domains. It advances scholarly discussions on the applicability of economic valuation models in CSR planning and provides a replicable framework for environmental cost estimation in tourism (Wang et al., 2021; Horng et al., 2022). Practically, the findings offer actionable insights for policymakers, tourism operators, and corporate stakeholders to co-create sustainable tourism infrastructure through scientifically informed CSR programs. By integrating environmental valuation with financial accountability, the study supports the achievement of SDG 8 (Decent Work and Economic Growth) and SDG 14 (Life Below Water).

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The remainder of this article is structured as follows: Section 2 reviews the relevant literature on green accounting, CSR, and economic valuation in tourism. Section 3 outlines the research methodology, including the application of the Travel Cost Method and regression modeling techniques. Section 4 presents the empirical results derived from primary data collected from Likupang. Section 5 discusses the implications of these findings within both academic and policy contexts. The article concludes with recommendations and limitations, highlighting opportunities for future research.

2. LITERATURE REVIEW

The convergence of sustainable tourism development and corporate environmental accountability has increasingly attracted scholarly attention over the last decade, particularly in the context of emerging economies and fragile ecosystems. As tourism continues to serve as a pivotal sector for national economic development, especially in archipelagic and coastal nations like Indonesia, concerns over ecological degradation, resource depletion, and social inequality have intensified (Gössling & Higham, 2021). In response, green accounting and corporate social responsibility (CSR) have emerged as strategic tools to internalize environmental costs and promote stakeholder inclusiveness (Bebbington & Larrinaga, 2014). These two frameworks—once regarded as voluntary or symbolic gestures—are now widely recognized as foundational for resilient tourism governance (Font et al., 2017; Pérez-Calderón et al., 2019). A growing body of literature underscores the imperative for private sector actors to engage in sustainable destination development through structured, measurable contributions aligned with global sustainability agendas (Horng et al., 2022; Wang et al., 2021).

The conceptual roots of green accounting trace back to the environmental economics literature of the 1980s, where scholars began integrating ecological externalities into financial reporting systems (Burritt & Schaltegger, 2010). Early work by de Beer and Friend (2006) demonstrated how environmental cost accounting could aid managerial decisions in environmentally sensitive sectors. Simultaneously, CSR evolved from philanthropic activities to strategic frameworks designed to balance profit-making with ethical and social responsibilities (Carroll & Shabana, 2010). Within tourism, initial CSR efforts were largely image-driven or reactive to crises (Coles et al., 2013). However, the turn toward sustainability reporting, life-cycle impact assessments, and stakeholder-based governance marked a paradigm shift—emphasizing transparency, accountability, and long-term value creation (Nikolaou et al., 2013). These developments laid the groundwork for integrative approaches that blend environmental metrics with corporate governance, particularly relevant for nature-dependent industries like coastal tourism.

In recent years, research on green accounting and CSR has expanded considerably, incorporating interdisciplinary approaches that integrate environmental valuation, behavioral economics, and digital transparency. Studies have increasingly leveraged methods such as the Travel Cost Method (TCM), input–output modeling, and life-cycle analysis to measure the economic and ecological value of tourism destinations (Fleming & Cook, 2018; Bakhtiari et al., 2020). Scholars such as Font et al. (2017) and Dmytriyev et al. (2021) have redefined CSR

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not merely as a compliance mechanism but as an embedded organizational value system aligned with long-term sustainability goals. The growing relevance of the Sustainable Development Goals (SDGs), particularly SDG 12 (Responsible Consumption and Production) and SDG 14 (Life Below Water), has further catalyzed innovation in how tourism firms disclose and implement CSR through green reporting (Lim & To, 2021; Sánchez-Teba et al., 2020).

Technological advancement has also transformed environmental accounting systems, enabling firms to automate sustainability reporting and improve auditability of non-financial disclosures (Camilleri, 2017; Okafor & Iredele, 2021). These developments have made it feasible for even small and medium-sized enterprises (SMEs) to adopt environmental management accounting (EMA) systems and align them with stakeholder expectations. However, these advancements remain underutilized in tourism sectors within Southeast Asia, especially in Indonesia, where CSR practices are still largely symbolic and not aligned with robust valuation metrics (Tran et al., 2020; Ahmad et al., 2022).

Despite the growing body of literature, significant gaps remain in applying environmental valuation models—such as TCM—to guide CSR investment decisions in tourism. Most existing studies focus either on green accounting in manufacturing sectors or on CSR practices in hospitality without linking the two through quantifiable economic tools (Giannarakis, 2016; Islam & Deegan, 2010). The literature also lacks a unified methodological framework that enables tourism operators and government agencies to assess how CSR contributions can be optimized based on real economic and environmental impacts at specific destinations (Asutay & Kato, 2021). Moreover, empirical research exploring the role of visitor demographics, travel behavior, and spending patterns in shaping CSR thresholds is limited. This restricts the ability of destination managers and private stakeholders to allocate resources effectively or prioritize interventions for local tourism infrastructure (Sánchez-Ollero et al., 2020).

Synthesizing the existing literature reveals a clear need for integrative approaches that link green accounting mechanisms to CSR investments within the tourism sector, particularly in coastal and maritime regions vulnerable to environmental degradation. While foundational works have emphasized the value of environmental cost tracking and strategic CSR, there remains a methodological void in how economic valuation tools such as the Travel Cost Method (TCM) can guide CSR planning and implementation at the local level. This gap is especially pronounced in developing countries like Indonesia, where CSR obligations are mandated by law but rarely grounded in rigorous environmental or economic metrics (Wang et al., 2021; Tran et al., 2020).

This study directly addresses these shortcomings by proposing a model that quantifies the economic value of tourism using TCM and translates it into CSR benchmarks for private sector engagement. By integrating demographic, financial, and behavioral data from actual tourist behavior in Likupang, this research contributes to filling the empirical and methodological void identified in the literature. It also extends the discourse on how private corporations can play a more accountable and measurable role in sustainable destination development—moving beyond symbolic CSR toward outcome-oriented environmental governance. In doing so, this

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research not only bridges the conceptual divide between green accounting and CSR, but also offers practical pathways for local tourism enhancement aligned with national and global sustainability agendas.

3. RESEARCH METHODOLOGY

This study employs a quantitative descriptive design, complemented by qualitative insights to evaluate the economic value of maritime tourism destinations and translate that value into practical CSR benchmarks for private-sector stakeholders. Grounded in an applied economic valuation framework, the study integrates the Travel Cost Method (TCM) as its primary analytical tool. TCM is widely used in environmental economics to estimate the recreational use value of non-market goods such as natural tourism assets (Fleming & Cook, 2018; Bakhtiari et al., 2020). By using travel expenditures as proxies for visitors' willingness to pay, the study quantifies tourism demand and enables the construction of predictive models for CSR contribution estimation.

This design is consistent with recent best practices in sustainable tourism valuation (Garrod & Willis, 1999; Wang et al., 2021), and is particularly suitable for emerging destinations where comprehensive secondary data is often unavailable. Furthermore, a mixed-methods approach was adopted, using in-depth interviews and open-ended survey responses to validate and contextualize quantitative findings—following triangulation principles (Creswell & Creswell, 2017).

The empirical context of this study is Likupang, a coastal region in North Minahasa, Indonesia, which has been designated as a National Tourism Strategic Area under Indonesia's Medium-Term National Development Plan (RPJMN) 2020–2024. Likupang is known for its ecological richness and growing popularity among domestic tourists, yet it faces infrastructure deficits and lacks structured financial support from the private sector.

A non-probability purposive sampling technique was used to select respondents who had recent visitation experience to coastal destinations in Likupang. The target population consisted of domestic tourists residing in Manado and North Minahasa, the main origin zones for visitation. A total of 160 valid responses were obtained through an online survey (via Google Forms), and additional qualitative data were gathered through semi-structured interviews with destination managers and tourism service providers.

Data were collected in two stages: (1) Structured survey comprising socio-demographic profiles, travel costs, and visitation behaviors. (2) Follow-up interviews conducted via phone and email to explore respondents' perceptions of tourism quality, infrastructure needs, and CSR expectations.

Travel costs were disaggregated into: Transportation (round trip); Food and beverage expenses; Documentation (e.g., photography, souvenirs); Miscellaneous costs (e.g., entrance fees, parking). This structure follows the TCM protocols described by Hanley and Spash (1993) and Bateman and Willis (2001), adapted to the local context.

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To estimate the economic value of coastal tourism and its implications for CSR benchmarks, this study employed the Travel Cost Method (TCM) in conjunction with multiple linear regression analysis. The analytical process followed three stages: (1) cost aggregation, (2) visitation modeling, and (3) valuation extrapolation. TCM was chosen for its robustness in assessing recreational site value based on actual expenditures incurred by tourists, serving as a revealed preference approach in line with environmental economics literature (Fleming & Cook, 2018; Hanley & Spash, 1993).

The econometric specification is based on the following functional form:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \varepsilon$$

Where:

Table 1: Travel Cost Method Variables

Variable	Description	Unit
Y	Number of visits per 1,000 residents (visitation rate)	Visits
X1	Total travel cost per visit	IDR
X2	Transportation cost only	IDR
X3	Monthly income of visitor	IDR
X4	Population from origin zone	Individuals
X5	Education level	Years of formal education
X6	Weekly working hours	Hours/week
X7	Weekly leisure time	Hours/week

Source: Data Processed (2023)

These variables were derived from responses provided by 160 domestic tourists visiting Pantai Paal in Likupang. The data were processed using IBM SPSS v24 and verified via RStudio for regression robustness and residual diagnostics.

The regression results revealed that five variables—X1 (Total Travel Cost), X2 (Transport Cost), X3 (Income), X4 (Population), and X5 (Education)—were statistically significant ($p < 0.05$), while X6 (Working Hours) was not. The positive coefficient for X1 and X2 indicates that higher travel and transport costs correspond with increased visitation rates, suggesting that more committed tourists incur higher expenditures. Interestingly, X3 (Income) showed a negative coefficient, aligning with similar findings in emerging market contexts where lower-income groups disproportionately engage in low-cost domestic tourism (Bakhtiari et al., 2020; Wang et al., 2021). The model provides a reliable basis for estimating tourism-generated economic value and forms the foundation for designing CSR thresholds that reflect environmental use intensity and demand patterns.

4. RESULTS

The descriptive analysis provides a foundational understanding of the socio-demographic characteristics of the 160 respondents surveyed, all of whom had visited the Paal Beach destination in Likupang. The data reveal that the typical visitor is a female (76.3%), aged

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between 18–30 years (66.9%), with a senior high school education (62.5%), predominantly students (65.6%), and with an income of less than IDR 1 million/month (63.7%). These findings are indicative of low-spending but highly mobile segments, relevant for CSR targeting and tourism infrastructure planning.

Tourist preferences indicate a strong preference for Pantai Paal, chosen by 74.4% of respondents as their favorite and most frequently visited location in Likupang. The primary purpose of visitation was for relaxation (63.1%), and travel was mostly done in small groups (3–5 persons, 56.9%) using private cars (45.6%). The presence of family or friend recommendations plays a significant role in destination choice, which is consistent with peer-driven travel behavior observed in emerging markets (Okumus et al., 2019).

Table 2: Tourist Preferences and Travel Patterns

Attribute	Most Chosen Category	Frequency	Percentage (%)
Favorite Destination	Pantai Paal	119	74.4
Purpose of Visit	Relaxation	101	63.1
Group Size	3–5 persons	91	56.9
Mode of Transport	Private Car	73	45.6

Source: Data Processed (2023)

To quantify the economic value of Pantai Paal as a public tourism asset, the Travel Cost Method (TCM) was applied. This approach uses individual travel expenditures as a proxy for visitors' willingness to pay for recreational experiences, providing a measure of consumer surplus and tourism value. Costs analyzed include transportation, food, documentation, and miscellaneous expenses, disaggregated by region of origin.

Table 3: Average Travel Costs to Pantai Paal by Origin Zone

Zone	Avg. Total Cost (IDR)	Avg. Transport Cost (IDR)	Avg. Income (IDR/month)
Airmadidi	275,150	230,150	3,484,203
Malalayang	350,300	305,300	3,484,203
Mapanget	280,550	235,550	3,484,203
Outside Region	322,850	277,850	3,484,203
Average	319,287	274,287	3,484,734

Source: Data Processed (2023)

The average travel cost per visitor was estimated at IDR 319,287, while the mean transportation cost was IDR 274,287, indicating that access-related expenses constitute over 85% of total trip costs. When aggregated with visitation frequency data, these figures suggest a valuation surplus for the destination and form the basis for CSR funding benchmarks by local firms (Bakhtiari et al., 2020; Fleming & Cook, 2018).

Multiple linear regression analysis was conducted to estimate the demand function for tourism, using visitation rates per 1,000 residents (Y) as the dependent variable and seven explanatory variables (X1–X7). The results support the robustness of the travel cost framework for valuation and reveal significant predictors of tourism demand.

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Table 4: Regression Results: Determinants of Tourism Demand

Variable	Coefficient (β)	p-value	Interpretation
X1: Total Cost	4.434	0.002	Positive: cost implies intent
X2: Transport Cost	10.914	0.000	Strong predictor
X3: Monthly Income	-8498	0.003	Negative: income-sensitive demand
X4: Population	0.452	0.002	Higher pop = more visits
X5: Education Level	4684	0.004	More educated = more frequent visits
X6: Working Hours	0.951	0.285	Not significant
X7: Leisure Time	-1799	0.020	Inverse impact on travel

Source: Data Processed (2023)

The model yielded an adjusted $R^2 = 0.741$, indicating that approximately 74.1% of the variation in visitation demand is explained by the included variables. The negative sign on X3 and X7 suggests that higher income does not always translate into higher visitation, likely due to substitution effects or opportunity costs (Gössling & Hall, 2020). These insights are instrumental for targeting CSR support, especially for funding transport and access subsidies for lower-income tourist segments.

To operationalize the link between economic valuation and corporate social responsibility, we extrapolated the total estimated travel cost value from all predicted visitors across zones. The cumulative travel value for Pantai Paal was IDR 20.44 billion/year, based on demand data scaled per 1,000 population and expenditure.

Table 5: Annual Travel Cost Valuation Summary

Metric	Value
Total Visitors (Estimated)	37,981
Avg. Travel Cost/Visitor	IDR 319,287
Total Valuation (Annual)	IDR 20,449,842,950

Source: Data Processed (2023)

This value provides a minimum benchmark for CSR allocation, ensuring that corporate contributions align with the economic value generated from environmental usage. This aligns with recommendations from Pérez-Calderón et al. (2019) and Camilleri (2017) on using green accounting to inform CSR strategies.

5. DISCUSSION

The findings from this study offer critical insights into the cost structures, behavioral dynamics, and socio-demographic profiles that shape coastal tourism in emerging economies. The dominance of young, low-income, and education-level-sensitive visitors underscores the role of affordability and accessibility as key determinants of tourism demand. These findings align with previous studies indicating that in developing nations, domestic tourism is often driven by segments that are cost-conscious yet highly mobile (Ritchie et al., 2021; Gössling & Hall, 2020). This pattern reinforces the importance of contextual green accounting, wherein environmental valuation is grounded not merely in resource extraction or degradation but in

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human utilization intensity. Incorporating this dimension into CSR planning enhances both financial accountability and social inclusiveness (Bebbington & Larrinaga, 2014; Camilleri, 2017).

By applying the Travel Cost Method (TCM), the study successfully estimated the annual recreational value of Pantai Paal at over IDR 20.44 billion, representing a non-market value that can serve as a practical reference for CSR allocation. This empirical approach supports the argument that CSR contributions should be linked to the economic benefit firms derive indirectly from environmental assets (Fleming & Cook, 2018; Pérez-Calderón et al., 2019).

Furthermore, the model's robustness (Adjusted $R^2 = 0.741$) confirms that travel costs, education, and local population density are reliable predictors of visitation demand, aligning with valuation frameworks used in protected areas and urban recreation studies (Bakhtiari et al., 2020). Notably, the negative coefficient for income suggests that low-income tourists are more likely to engage in local nature-based recreation, supporting a pro-equity approach to CSR, where private sector support should prioritize enabling access for vulnerable segments.

The study reveals a clear disconnect between tourism usage intensity and CSR practices in Indonesia's coastal zones. While national legislation mandates CSR spending for limited liability companies (UU No. 40/2007), no mechanisms currently exist to standardize CSR allocation based on ecological or economic use metrics. This study's approach introduces a quantifiable pathway for linking visitation rates and travel costs to CSR benchmarks, thereby advancing the discourse in sustainability accounting and responsible tourism (Font et al., 2017; Wang et al., 2021).

Such integration is particularly important in light of infrastructure deficiencies identified in the qualitative findings—lack of sanitation, accommodation, and crowd management—issues that could be effectively addressed through CSR-backed co-investment models. This is consistent with frameworks proposed by UNWTO (2022), which advocate for multi-stakeholder investment in sustainable destination management.

The application of Travel Cost Method (TCM) in this study reinforces its viability as a valuation tool in tourism economics, particularly for non-market goods like natural recreational assets. The positive association between travel cost and visitation rate found in this research mirrors the work of Bakhtiari et al. (2020), who emphasized that cost-based behavioral proxies are reliable for estimating environmental use value in developing regions. Similarly, the finding that low-income groups dominate visitation echoes the accessibility dynamics discussed by Gössling and Hall (2020), particularly in the context of the Global South.

Theoretically, this research extends the green accounting discourse by introducing a CSR-integrated valuation model, where cost-driven demand serves as a financial basis for environmental responsibility. This model challenges the conventional philanthropic view of CSR and aligns with contemporary perspectives that advocate for value-aligned CSR investments, as elaborated in Camilleri (2017) and Font et al. (2017). It also advances sustainability accounting literature by linking usage-based metrics (visitation and cost) with fiscal accountability in tourism sector firms, an area notably absent in traditional CSR

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disclosures (de Beer & Friend, 2006). From a policy standpoint, the implications are substantial. Current CSR regulations in Indonesia—although mandatory—lack sectoral specificity and fail to establish valuation-based thresholds. This study offers a novel economic quantification mechanism, allowing local governments and stakeholders to define minimum CSR contributions based on real-use intensity and environmental load.

Moreover, the alignment of economic valuation with destination infrastructure gaps—toilets, sanitation, accommodation, waste management—enables CSR to function not only as a reputation tool but also as a co-investment mechanism in sustainable tourism development. This supports the "Destination Stewardship" approach recommended by UNWTO (2022), where private sector accountability is operationalized through shared infrastructure responsibility.

Education-based segmentation also presents practical value. The data suggest that more educated visitors are likely to spend more, implying a market for premium eco-tourism services that can be co-funded through CSR. Companies seeking long-term community relations and sustainable reputational capital should consider tiered CSR programs targeting both basic services (for low-income tourists) and quality enhancements (for high-education, high-WTP segments).

Equity emerges as a critical theme in this study. Given the predominance of low-income tourists, there is a moral imperative for CSR to shift toward a redistributive model, where firms that benefit from regional tourism flows contribute to enabling access for the underserved. This aligns with the broader concept of Environmental Justice in Tourism, as discussed by Higgins-Desbiolles (2018), emphasizing fair access to ecosystem-based recreation.

Future research may expand on this work by: (1) Applying longitudinal methods to assess changes in travel cost behavior over time; (2) Extending the CSR valuation model to other tourism destinations across the Indonesian archipelago; (3) Incorporating carbon cost estimations to integrate climate-conscious CSR planning (Lim & To, 2021).

6. CONCLUSION

This study has empirically demonstrated the significant role that green accounting and corporate social responsibility (CSR) can play in advancing the quality of maritime tourism, particularly within underfunded and environmentally sensitive destinations like Likupang, Indonesia. By employing the Travel Cost Method (TCM), the research provides a quantified valuation of coastal tourism based on actual visitor expenditures, revealing an annual non-market value of over IDR 20.44 billion.

Key findings confirm that travel cost, transportation expenses, income level, education, and origin population significantly influence tourism demand, while higher income does not necessarily predict higher visitation—underscoring the need for equitable tourism policy and CSR strategies. The regression model further supports the validity of using socio-economic variables to forecast demand and guide CSR allocations. These insights offer a novel, data-driven basis for CSR contribution design, shifting from discretionary to evidence-based

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environmental responsibility. This study also contributes theoretically by integrating valuation models with sustainability accounting and CSR frameworks—extending green accounting applications into tourism sector governance and creating a replicable model for other emerging regions.

In light of the findings and analysis, several strategic recommendations can be proposed to improve the application of green accounting and corporate social responsibility (CSR) in the development of maritime tourism in Indonesia. First, it is imperative that tourism-related firms and local governments adopt economic valuation models, such as the Travel Cost Method (TCM), as integral components in CSR planning and environmental financial reporting. This approach ensures that CSR allocations are not arbitrary but are grounded in empirical evidence reflecting actual visitor use and tourism-generated value. Second, there is a compelling need to shift CSR strategies toward equity-oriented interventions, especially given the predominance of low-income visitors who exhibit strong demand for affordable, accessible recreational spaces. CSR programs should therefore prioritize initiatives that reduce financial and physical barriers to access, such as infrastructure subsidies, public transport support, and the provision of basic amenities like toilets, rest areas, and clean water facilities.

Third, destination-level CSR programs should be directed towards closing critical infrastructure gaps that were identified in this study, notably the lack of sanitation, signage, and crowd management facilities at Pantai Paal. These deficiencies undermine visitor experience and sustainability, but they also present tangible, visible areas where corporate contributions can deliver high-impact results. Fourth, policy coordination between stakeholders—namely local government authorities, the private sector, academia, and civil society—is essential to align CSR activities with broader sustainability objectives and national tourism master plans. This includes designing governance models that foster transparency, accountability, and participatory planning in CSR decision-making.

Furthermore, the valuation framework introduced in this study provides a replicable model that can be extended to other coastal destinations across the Indonesian archipelago, allowing for scalable CSR programs that are adaptive to local socio-economic and ecological contexts. Lastly, considering the role of education as a significant variable influencing both willingness to pay and pro-environmental behavior, CSR initiatives should also encompass education-based tourism programs. These might include partnerships with schools, universities, and community learning centers to promote environmental awareness, responsible tourism practices, and cultural sensitivity—ensuring that tourism development is not only economically inclusive but also socially and ecologically empowering.

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