The Role of Green Accounting and Corporate Social Responsibilities to Improve Maritime Tourism Quality in North Sulawesi

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Abstract. Green accounting and corporate social responsibility (CSR) play an essential role in improving the quality of human life and nature. The quality of maritime tourism faces various issues; thus, there is a need for synergy in the business world by implementing green accounting and CSR so that maritime-based tourism management can be improved and directly impact the quality of tourism. The research aims to explore the application of environmental accounting to optimize social and environmental responsibility toward improving the quality of maritime tourism. This research was conducted with the local tourists in Bitung City, North Sulawesi, Indonesia. The research method used a descriptive qualitative investigation of green accounting, CSR, and marine tourism quality. Data analysis using the travel cost method. The research findings reveal that applying environmental accounting by looking at CSR implementation emphasizes the development of ecotourism and marine tourism-based tourism. The implications of this research can be a guideline for private companies in Indonesia to implement environmental accounting in the form of CSR to improve the quality of maritime tourism in the areas where the company operates.

Keywords: green accounting · corporate social responsibilities · maritime tourism · travel cost method

1 Introduction

These days, environmental problems caused by environmental degradation occur on a massive global scale [1]. Today's environmental degradation problems are mainly caused by human activities such as modernization, industrialization, overpopulation growth, deforestation, etc. [2]. This environmental degradation causes environmental damage such as global warming, water and soil pollution, and other environmental problems.

These environmental problems encourage the emergence of public awareness, including in the business and industrial world, to implement awareness to develop business and industrial practices that focus on economic factors and other pillars of sustainability [3], such as improving social and environmental quality. The interconnection of

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the three pillars in the accounting field has encouraged the birth of a sustainability-based accounting field, namely green accounting.

Environmental accounting, or green accounting, is one of the new fields of science in accounting that has been emerging and multiplying in recent years [4]. The green accounting approach primarily seeks to create a better relationship between financial and environmental performances, especially to create costs and environmental benefits as a management decision-making tool that is beneficial for the company's economy and for improving the quality of the human environment and social life [4].

An industry that can be explored by green accounting is the tourism industry, especially the maritime-based tourism industry. The application of green accounting in the development of the tourism industry is not carried out directly by the company but through the implementation of corporate social responsibilities, among others, by optimizing or improving the quality of tourism destinations and attractions in a particular area. The problem faced by the tourism industry is often a lack of financial resources to improve the physical and non-physical quality of tourist destinations, with the implementation of green accounting in the form of CSR funds from the company to be a solution to this problem [5].

Research from Saputra and Siregar [6] found that green accounting can bridge the application of environmental accounting with CSR optimization for industry players to improve the quality of the tourism industry in an area. Estimates of the financial needs needed by tourist destinations to develop can use the travel cost method calculation [7] to obtain CSR funds needed for developing tourist destinations and improving the environmental quality of a particular tourist attraction.

The problem that arises in the development of environmental accounting is measuring a natural asset and calculating environmental benefits and costs, which will later be documented in the company's financial statements [8]. Companies need to have a report on the environment in the company's financial statements that are issued annually. This company's financial statements can be made according to the goals and creativity of each company [6], one of which is to improve the quality of the environment in a maritime tourism object in a specific area.

This article examines the costs of improving environmental quality and increasing maritime-based tourist destinations in Bitung City, which can be included in the company's financial statements about green accounting. This research can have implications for improving the quality of natural tourism objects, the quality of the environment, and providing financial report data that companies can include as financial reports on the environment and green accounting.

The concept of green accounting has been developed since the 1970s in Europe due to NGOs pressure and increasing environmental awareness in society, which urges businesses and industries to generate profits and implement environmental management [9].

This concept is defined as how the company contributes positively or negatively to improving the quality of human life and the environment [10]. Other terms for green accounting are sustainability accounting [11], environmental accounting disclosure, social and environmental reporting, social responsibility accounting, and triple bottom line reporting [12].

The concept of Corporate Social Responsibility (CSR) has been developed since the early 20th century. However, this concept has become one of the critical theories in the prominent literature on business ethics and management [13]. This concept is defined as a commitment to improving community wellbeing through discretionary business practices and the contribution of corporate resources [14].

Maritime tourism is all maritime-related activities, both recreational and leisure, which take place in the marine environment receiving and offering hospitality to tourists [15]. Some examples of maritime tourism are [16] coastal tourism or coastal zone tourism, sea zone tourism, and underwater zone tourism.

The travel cost method is an analytical method to examine the economic assessment of a travel cost or the cost of traveling [17]. This method was first created in the 1950s and is called the Clawson method [18].

Several researchers have examined the implementation of environmental accounting concerning optimizing CSR for companies. Research using travel cost method analysis [6, 19] on the maritime tourism industry in Batam City has succeeded in revealing important information for company management and the industrial world in implementing corporate CSR. This previous research is to facilitate green accounting-based recording for companies in Indonesia.

2 Research Methods

This study is descriptive quantitative research. This study provides a study of tourism's economic value and identifies the factors that influence the demand for visitors to marine tourism objects in Bitung City.

The unit of analysis or research object in this study was a tourist attraction or tourism destination in Bitung City, namely the Batu Angus Bitung maritime tourism object. Respondents who participated in the study were 105 people from 6 sub-districts around Bitung City and outside Bitung.

This study applied the Travel Cost Method [20] analysis method to assess recreational areas, which were then used as standards in taking CSR costs that industry players must incur. The sampling method was to use primary data or distribute questionnaires. The questionnaires were distributed through the Google form application to people or tourists who have visited tourist destinations in Bitung City.

3 Results and Discussions

Based on Table 1, the identification of characteristics from a sample that represents a randomly selected population shows that the majority of respondents were males (67.6%), aged 21–30 years (42.9%), highly educated holding bachelor's degree (53.3%), worked as a state employee (48.6%), and have a monthly income between IDR 2 million-IDR 5 million (37.1%), and from Madidir District in Bitung City (32.4%).

Table 1. Sociodemographic of Respondents

Description	Info	Total	%
Gender	Male	71	67.6
	Female	34	32.4
Age (years old)	<18	-	-
	18–20	11	10.5
	21–30	45	42.9
	31–40	23	21.9
	41–50	20	19
	51–60	5	4,8
	>60	1	1
Education	High School	30	28.6
	Diploma (D1–D3)	5	4.8
	Bachelor (S1)	56	53.3
	Postgraduate (S2/S3)	13	12.4
	Professional (doctor, lawyer, etc.)	1	1
Work	State Employee	56	53.4
	Student	10	9.5
	Private Employee	9	8.6
	Health Worker	6	5.7
	Entrepreneur	6	5.7
	Other	18	17.11
Income Per Month (IDR in Million)	<1	17	16.2
	1–2	24	22.9
	2–5	39	37.1
	5–7	15	14.3
	7–10	8	7.6
	>10	2	1.9
Residence in Bitung City (District)	Madidir	34	32.4
	Girian	18	17.1
	Matuari	16	15.2
	Maesa	10	9.5
	Ranowulu	7	6.7
	Aertambaga	6	5.7
	Outside Bitung City	14	13.4
TOTAL		105	100

Based on Table 2 regarding tourist destinations in Bitung City, the majority of respondents answered that: their favourite tourist destination is Batu Angus Beach (42.9%), the most visited tourist destination in Bitung City was Batu Angus Beach (40%), families were people the most frequently invited to travel together (42.9%), the purpose of the trip was to relax (73.3%), a trip is followed by 5–10 people (39%), and the mode of transportation that is often used to go to tourist attractions was a private car (41.9%).

Table 2. Destination Tourism of Respondents

Description	Info	Total	%
Favourite Tourism Travel Destination in Bitung City	Batu Angus Beach	45	42.9
	Tuhan Yesus Memberkati Statue in Lembeh Island	14	13.3
	Batu Putih Beach	13	12.4
	Lembeh Island Strait	12	11.4
	Other	21	20
Frequently Visited Tourism Travel Destination in Bitung City	Batu Angus Beach	42	40
	Batu Putih Beach	19	18.1
	Tanjung Merah Beach	13	12.4
	Lembeh Island Strait	13	12.4
	Other	18	17.1
People Who Are Invited Together To Travel	Families	45	42.9
	Close Friends	33	31.4
	Other Friends	10	9.5
	Spouse	9	8.6
	Other	8	7.6
	Relax	77	73.3
Traveling Goal	Worship	7	6.7
	Family Gathering	6	5.7
	Office/School Gathering	3	2.9
	Other	12	11.4
	Alone	-	-
Number of people who are invited for one trip (People)	1	8	7.6
	5-Mar	40	38.1
	10-May	41	39
	>10	16	15.2
Mode of Transportation Used To Get To Tourist Destinations	Private Car	44	41.9
	Private Motorcycle	36	34.3
	Boat	14	13.3
	Other	11	10.5
TOTAL		105	100

The top five factors related to the advantages of frequently visited tourist destinations include beautiful place (81%), cheap entrance fee (51.4%), good location to visit (43.8%), clean place (41.9%), and lots of friends/acquaintances frequent visits (24.8%). The top

five factors related to the shortcomings of frequently visited tourist destinations include lack of facilities (55.2%), poor road access (38.1%), poorly maintained facilities (27.6%), no toilet (24.8%), and lack of no lodging (24.8%).

The study selected the natural tourist destination of Batu Angus as a research case study. Batu Angus was chosen because this tourist destination is a favourite tourist destination and a tourist destination most frequently visited by tourists from Bitung City, North Minahasa, Manado, and surrounding areas. Table 3 shows the distance to Batu Angus Bitung beach from several areas (zones) both Bitung and outside Bitung (Manado City).

Based on Table 3, it can be seen that the Aertambaga area is the closest area to Bitung City, with a travel time of 16 min and a distance of 7.2 km, while the zone in the Bitung area the farthest is the Ranowulu zone, where to reach the BAB tourist destination the travel time is 55 min with a distance of 24.7 km. While the farthest distance from the outer zone of Bitung is from Manado City, with a travel time of 1 h 25 min with a distance of 61 km.

Table 5 shows the number of tourist visits to Batu Angus Beach Tourism Destinations (BAB) Bitung City per 1,000 residents from each zone. The data needed are the number of residents in each zone that is the sample in the study. The percentage of respondents transforms the data as a percentage of the number of tourist visits in the previous year into a prediction of the number of zone visitors. The next step is to calculate complete data on tourism's economic value, which can be seen in Table 6. Based on Table 6, the number of tourist visits to defecation destinations is 991, with an average of 141.57. The average travel cost to BAB tourist destinations is IDR 128,650 (Table 4). The average PP transportation cost to defecation destinations is Rp. 83,650. The average monthly income from visitors to defecation tourist destinations is IDR 3,138,213, and this result is almost the same as the 2021 Bitung City UMP of IDR 3,310,723. The total population of the zone of origin is 254,944 people, with an average of 36,420.57 people from each zone. The average length of education of tourists visiting defecation tourist destinations is high education, 15.85 years. The average working time per week for tourists is 42.25 h. Meanwhile, the average length of free time per week for visitors to defecation tourist destinations is 4.35 h. The results of multiple regression between the number of visits

Table 3. The Distance between Batu Angus Beach (BAB) from Bitung District and Outside Bitung

Region/District (Zone)	Travel Time (Using Vehicle)	Distance (Km)
Madidir	38 min	16.8
Girian	41 min	19.6
Matuari	54 min	24.7
Maesa	33 min	13.3
Ranowulu	55 min	24.7
Aertamabaga	16 min	7.2
Outside Bitung	1 h 25 min	61

Table 4. Visitor Travel Costs From Each Zone to Batu Angus Beach Tourism Destination (BAB) Bitung

Region/District (Zone)	Travel Cost (IDR/Person/Trip)				
	T	MS	DOC	Other	Total
Madidir	58,800	25,000	10,000	10,000	103,800
Girian	68,600	25,000	10,000	10,000	113,600
Matuari	86,450	25,000	10,000	10,000	131,450
Maesa	46,550	25,000	10,000	10,000	91,550
Ranowulu	86,450	25,000	10,000	10,000	131,450
Aertamabaga	25,200	25,000	10,000	10,000	70,200
Outside Bitung	213,500	25,000	10,000	10,000	258,500

T: Transportation (Arrive-Returning) M: Meal & Snack Consumption DOC: Documentation Other: Other Cost

Table 5. Distribution and Number of Visitors of BAB Per 1,000 Population By Region (Zone)

Region/District (Zone)	Total Population	Visitor Prediction (Person)	Visits/1000 Population (Person/Year)
Madidir	36,323	11,769	318
Girian	38,074	6,511	167
Matuari	40,496	6,156	151
Maesa	39,681	3,770	95
Ranowulu	20,376	1,366	69
Aertamabaga	29,994	1,709	57
Outside Bitung	50,000	6,700	134
TOTAL		37,981	

per thousand inhabitants (Y) and the independent variables (X1 − X7) are estimated to produce the following demand model: $Y = 1104.618 - 16.115\ X1 + 10.914\ X2 - 69.724\ X3 + 2.672\ X4 - 7.613\ X5 + 2.066\ X7$. With $P = 0.005$.

The results of the regression analysis show that the demand model based on the number of tourist visits per 1,000 residents is influenced by variables such as Travel Costs (PP Transportation, Consumption, Documentation, Others) (X1), PP Transportation Costs (X2), Monthly Income (X3), Number of Residents from Visitors' Origin Zone (X4), Length of Education (X5), and Free Time Per Week (X7). At the same time, the Working Time Per Week (X6) variable does not affect the demand model for the number of tourist visits per 1,000 residents.

Based on Table 7, it can be seen that the valuation of the Batu Angus Beach (BBA) tourist destination in Bitung City is based on the total travel costs based on the predictions of visitors totaling Rp 5,147,104,000. Meanwhile, the total valuation of Batu Angus

Table 6. Travel Costs for Batu Angus Beach (BAB) Tourism Destinations Bitung City

No.	Region/ District (Zone)	Y	X1	X2	X3	X4	X5	X6	X7
1	Madidir	318	103800	58800	3102570	36323	17	40,00	4,62
2	Girian	167	113600	68600	3201870	38074	16	39,70	6,60
3	Matuari	151	131450	86450	3175675	40496	15	43,00	3,19
4	Maesa	95	91550	46550	3112532	39681	17	40,40	3,30
5	Ranowulu	69	131450	86450	3102938	20376	16	50,70	3,08
6	Aertamabaga	57	70200	25200	3091082	29994	14	40,00	4,62
7	Outside Bitung	134	258500	213500	3180823	50000	16	42,00	5,06
TOTAL		991	900550	585550	21967490	254944	111	295,8	30,47
Mean		141,5714	128650	83650	3138213	36420,57	15,85714	42,25714	4,352857

X1: Travel Cost, X2: Transport Cost, X3: Monthly Income, X4: Number of Population from Origin Zone, X5: Length of Education (Years), X6: Working Time Per Week (Hours), X7: Free Time Per Week (Hours), Y: Number of Visits Per 1000 Population (Person)

Table 7. Valuation of Batu Angus Beach (BAB) Tourism Destinations Bitung City

Region/ District (Zone)	Total Population	Total Travel Cost Based on Visitor Prediction (IDR)	Total Travel Cost by Visit/1000 Population (IDR/Year)
Madidir	36323	1221622200	33008400
Girian	38074	739649600	18971200
Matuari	40496	809206200	19848950
Maesa	39681	345143500	8697250
Ranowulu	20376	179560700	9070050
Aertamabaga	29994	119971800	4001400
Outside Bitung	50000	1731950000	34639000
TOTAL		5147104000	128236250

Beach (BAB) tourist destinations based on travel costs per 1000 residents from each zone is IDR 128,236,250 per year. Travel costs per zoning are shown in Table 7.

4 Conclusion

The travel cost method is often only used to estimate the cost of tourism travel for purely financial information. However, in this study, this method was added to calculate the application of environmental accounting in optimizing corporate social and environmental responsibility (CSR) for industrial players in the form of a limited liability

company (PT). This research studies tourist destinations in Bitung City, especially Batu Angus Beach (BBA) Bitung City.

Several studies from Saputra and Siregar [6, 19] examined the application of environmental accounting in optimizing corporate social and environmental responsibility for industry players in increasing tourism development in an area. Those studies found that companies can play a role in improving the tourism industry in their regions by providing CSR assistance for natural tourist destinations in the context of tourism development and also improving the environmental quality of tourist destinations assisted by the company or industry.

Based on the results of this study, it was found that the Batu Angus Beach (BAB) tourist destination in Bitung City is one of the favorite tourist destinations frequently visited by local tourists in this study. Where tourists from various regions in Bitung City, such as Madidir, Girian, Matuari, Maesa, Ranowulu, and Aertembaga districts, and from outside the city of Bitung make this tourist destination a frequent tourist destination and a favorite tourist destination. This frequent visit is because this tourist destination has various advantages such as a beautiful place to visit, low entry fees, good location to visit, clean place, and visited by many people.

However, behind the advantages of this tourist destination, there are various shortcomings based on findings in the field, which are the facilities are still lacking, road access is not good, the facilities are not maintained, there are no toilets or bathrooms, and there is no lodging.

Large companies or industries that operate in Bitung City need to apply environmental accounting; namely, green accounting records based on improving the quality of human, social, and surrounding environment need to implement it through optimization of CSR, which is a CSR obligation that must be applied by companies in the form of limited liability companies (PT). Based on Law Number 40 of 2007 concerning Limited Liability Companies, which regulates the obligation of companies forming PT to have a company commitment to participate in sustainable economic development in order to improve the quality of life and the environment that is beneficial, both for the company itself, the local community and society in general.

This research provides an in-depth and comprehensive view of how the implementation of environmental accounting by looking at the implementation of CSR for companies in the form of PT which must be implemented based on applicable laws in Indonesia. As an entity that is obliged to play a role in development, the company must be able to see the potential for the implementation of CSR combined with the application of environmental accounting, which emphasizes the development of ecotourism-based tourism and marine tourism-based.

North Sulawesi, which is used as one of the leading tourist destination provinces as a new Indonesian tourist destination besides Bali, needs to improve the quality of its tourism in the form of improving tourism destination infrastructure that utilizes resources and funds outside of Indonesian government funds (national fund/regional fund) in the form of optimizing CSR companies in Indonesia. This condition is in the form of allocation of financial resources in accounting records in the form of environmental accounting, which can positively impact companies in improving the company image in the eyes of the public and the government.

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