The Application of Green Accounting Hotel Management: Are Local and International Chains Different?

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ABSTRACT: The purpose of the study is to identify whether there is any different point of local and international chain hotel management in Bali in terms of environmental awareness, responsibility, involvement, accounting reporting, as well as audit. There are 45 questionnaires’ item to obtain primary data while documentation method was also applied in order to get the secondary one. The study revealed that in Bali there is no difference of environmental awareness between the local and international one. However, differences are found in the points of environmental responsibility, involvement in protecting it, its accounting reporting as well as its audit. It is further suggested that their similarities and differences for hotel chain management both local and international ones can be applicable for business of hospitality in Indonesia.

KEYWORDS: green accounting; hotel chains; hospitality business

I. INTRODUCTION
The tourism industry is one of the fastest growing industries in the world in recent years. Unfortunately, then came serious problems caused by the development of the tourism industry itself. The massive expansion of infrastructure and the proliferation of hotels to support tourism development are having an impact on environmental degradation. One of the impacts of tourism development facing different countries of the world is environmental problems such as clean water, air pollution, noise pollution, waste accumulation, natural imbalance, land use and biodiversity loss (Chan, 2011; Khairat and Maher; 2012; Buyuki Pecti, 2014). Responsible tourism is an approach to tourism that benefits tourists, the environment, locals and governments. The tourism industry is one of the fastest growing sectors around the world in recent years. Unfortunately, serious problems followed, caused by the development of tourism itself (Ozbay et al, 2022).

The massive expansion of infrastructure and the proliferation of hotels to support tourism development have implications for environmental degradation (Liu et al., 2022). One of the impacts of tourism development facing different countries of the world is environmental problems such as clean water, air pollution, noise pollution, waste accumulation, natural imbalance, land use and biodiversity loss. (Sundriyal et al, 2018; Yang and Fik, 2014; Ghulam Rabbany, 2013; Belsoy et al., 2012). Responsible tourism is an approach to tourism that benefits tourists, the environment, local people and governments (Kopera, 2018; Lee & Hsieh, 2016; Brokaj, 2014). Environmental challenges facing countries with high tourism potential are prompting the emergence of the concept of sustainable tourism (Hunter, 2012; Weaver, 2022). In general, sustainable tourism requires tourism stakeholders to consider three aspects of following their business goals.

Financial performance, environmental performance, and social performance (Maxim, 2016; Pertama, et al. 2022). The concept of sustainable tourism emphasizes the importance of taking responsibility for maintaining the sustainability of tourism for generations to come by mitigating problems that adversely affect the resources that support tourism, especially the environment. It is a concept that is commonly recognized as a stakeholder in (Aall & Koens, 2019; Dangi and Jamal, 2016). Ruhanen et al. (2019) explain that culture is a major factor influencing the development of corporate structure and social environment, which ultimately affects accounting.

Bali, one of Indonesia's biggest tourist destinations, has local wisdom that guides our daily lives. This eco-friendly culture is known as Tri Hita Karana. This philosophy emphasizes that people are in harmony with God as the creator of nature and its contents (Parhyangan), in harmony among people (Pawangan), and in harmony with nature, the environment and people. (Ginaya et al, 2019). Tori Hita Karana's philosophy has gained recognition in the tourism industry world by reconciling these three concepts of his in hospitality leadership (MacRae & Wilson, et al. 2021). Bali's hotel industry is committed to its stakeholders and the environment through the implementation of a corporate social responsibility (CSR) program based on Tri Hita Karana. Corporate responsibility to the environment is one of the most important elements of corporate responsibility to society (Żelazna et al, 2019). Corporate awareness and responsibility for the environment is reflected in the inclusion of environmental costs in corporate
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accounting. Environmental awareness and responsibility require companies to invest, spend and report to protect the environment. The outcome of this social and ecological accounting debate ultimately led to the concept of green accounting. Green accounting is the collection, analysis and reporting of environmental and financial data with the aim of reducing the impacts and costs of environmental damage (Helm, 2020).

Green accounting is recognized as an important tool for understanding the aspects of the natural environment that affect the economy, as well as an element of sustainability (Tilt, 2018). Green accounting is generally introduced by companies concerned with the environment, sustainability, eco-effectiveness and eco-efficiency and is directly applied to various marketing tools in strategic management. (Adagye & Abubakar, 2018). The implementation of green accounting in companies is highly dependent on how companies perceive the problem environment. One of the factors influencing the successful implementation of green accounting related to economic activity is government and industry regulations and policies under which companies conduct their business activities (Shakkour et al, 2018).

According to Vuong et al. (2021), if an organization is aware of its social role, i.e. environmental awareness, then if it is aware of the organization's involvement in environmental issues (environmental can be classified as involved in ) to fulfill our social responsibility. This should be followed by an environmental report, in particular the organization's performance in managing the impact of its activities on the environment, which is enhanced through environmental audit (environmental audit) activities. Environmental auditing is the measurement and evaluation of an organization's performance.

In recent years, the application of green accounting has attracted the attention of many researchers. This study was conducted by: Vuong et al. (2021) tested his 100 companies in Vietnam on her three dimensions of corporate social responsibility in accounting and reporting. Vuong et al. (2021) found that while environmental awareness was relatively similar among the companies participating in the survey, there were differences in the environmental considerations and environmental reporting of these companies. Ardon et al. (2020) conducted another test between Jordan and the United Arab Emirates on three environmental dimensions, consisting of environmental awareness, environmental commitment and environmental reporting. As a result, it was shown that there is no difference between Jordan and the United Arab Emirates in terms of environmental history, environmental awareness, and efforts to address environmental issues. They are aware of environmental concerns, but their commitment to environmental protection is still low. Few companies reported on their environmental performance.

Research on green accounting in tourism and hospitality has not yet been extensively conducted. Several studies have been conducted in this area, with mixed results. These include a study by Hanson-Rasmussen & Lauver (2018) examining hospitality waste estimation and environmental accounting in Hong Kong. Reed et al. (2021) investigated the development of green accounting in the Istrian (Croatia) tourism industry and found that the level of environmental reporting in the Istrian (Croatia) tourism industry is generally very low. Bibi et al. (2022) Explores, identifies and synthesizes emerging trends in general corporate social responsibility and hospitality in Singapore. Another study conducted by Wut & Wong (2022) proves that the application of green accounting in the Turkish hotel industry aims to increase the environmental awareness of hoteliers. As far as we can understand, studies on the application of green accounting are still very rare in Indonesia, especially in the hotel and tourism industries. Therefore, this study is important to explore further the application of green accounting in Bali tourism, especially in the hospitality sector, to find new empirical evidence and evidence that strengthens or supports the findings of previous studies. The purpose of this study is to determine the differences and similarities in the application of green accounting in local and international hotel chains.

II. METHODOLOGY

2.1 Types of Research
This research is a type of quantitative descriptive research that describes the circumstances and phenomena of an object accompanied by statistical data taken from sample data.

2.2 Population and Research Sample
The population of this study is all hotels in Bali classified as Local or International Chain Management Hotel Star. According to Bali Tourism Board (2022), the number of star hotels in Bali will be 312 by 2022. The sample for this study is a total of 50 samples, comprising 27 of his local Star Hotels recognized by the Trihita Karana Awards chain hotels and 23 international chain hotels.

2.3 Sampling Techniques
This study uses primary data. Data were collected using a web-based survey or a questionnaire-style survey tool distributed to respondents (executives or representatives in this study) via email. A survey contains questions that each respondent must answer. Ratings are based on a 1-4 Likert scale that includes the following information: 1=strongly disagree (SDA), 2=strongly disagree (DA), 3=strongly agree (A), 4=strongly agree (SS). The sampling technique used was a targeted sampling technique. Decision sampling d. H. Samples are not selected at random, but are selected based on specific considerations that are compatible with the objectives to be achieved.
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The criteria determined in sampling are hotels that are classified as star-stars (one star to five stars) in Bali, including hotels with a local chain management hotel or hotels with an international chain management hotel and have been accredited. Tri Hita Karana Awards. The criteria for selecting the sample in this study are based on considerations because the Tri Hita Karana Awards is one of the awarding events for companies in relation to the application of corporate social responsibility (CSR) program based on Tri Hita Karana. One of the aspects assessed in the Tri Hita Karana Awards is the company's contribution to the environment.

2.4 Data Analysis Techniques
Data analysis on the assistance of the SPSS 22 program. There were several analyzes carried out in this study, namely: descriptive statistics, research instrument testing before the questionnaire was distributed to respondents consisting of testing the validity and reliability of the instruments. After the data is collected, a hypothesis test is carried out to answer the problems contained in the research hypothesis. The hypothesis was tested using the Independent T-test. This test aims to compare the averages of the two groups which are not related to one another. Do the two groups have the same average or not significantly. Criteria for decision making, if the significant value is > 0.05 then the hypothesis is rejected, and if the significant value is <0.05 then the hypothesis is accepted.

III. RESULTS AND DISCUSSION
3.1 Descriptive Statistics
An analytical technique with the aim of providing a description of the research construct which shows the minimum, maximum, mean and standard deviation. The following is the result of an analysis of the respondent's data presented in table 1.

<table>
<thead>
<tr>
<th>Table 1. Descriptive Statistics of Research Variables</th>
</tr>
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<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>Awareness</td>
</tr>
<tr>
<td>Responsibility</td>
</tr>
<tr>
<td>Involvement</td>
</tr>
<tr>
<td>Reporting</td>
</tr>
<tr>
<td>audits</td>
</tr>
</tbody>
</table>

Source: Primary data processed, 2023

The range of answers for filling out the dimensions of the statements for each variable studied was determined using the three box method criteria (Ferdinand, 2006). The existing categories for each variable are as follows:

a) The environmental awareness variable is measured by seven indicator questions using a Likert scale of 1 to 4. If all questions are answered with 1, then the lowest score for all of these variable questions is 7 while the highest value is 28. The range of answers starts with 7 to 28. By using the three box method criteria, values 7 to 14 are in the low category, 14 to 21 are in the moderate category, and 21 to 28 are in the high category. Based on the descriptive statistics above, it is known that the mean value of environmental awareness is 25.05, which means that environmental awareness is included in the high category.

1. The variable of responsibility for the environment is measured by 5 indicators using a Likert scale of 1 to 4. If all questions are answered with a number one then the lowest score is 5 while the highest value is 20. The range of answers starts with 5 to 20 which if using the three box criteria of method, then the value of 5 to 10 is in the low category, the value of 10 to 15 is in the medium category, and the value of 15 to 20 is in the high category. Responsibility mean value to the environment is 17.75 which means that environmental responsibility is included in the high category.

b) Variable involvement in protecting the environment is measured by 4 indicator questions using a Likert scale of 1 to 4. If all questions are answered with a number one, the lowest score is 4 while the highest value is 16. The range of answers starts with 4 to 16 which if using criterion three box of method, then values 4 to 8 are in the low category, values 8 to 12 are in the medium category, and values 12 to 16 are in the high category. The mean value of involvement in protecting the environment is 15.28 which is included in the high category.

c) Environmental reporting variables are measured by 10 indicator questions using a Likert scale of 1 to 4. If all questions are answered with a number one then the lowest score is 10 while the highest value is 40. The range of answers starts with 10 to 40 which, when using the three box criteria of method, then the value of 10 to 20 is in the low category, the value of 20 to 30 is in the medium category, and the value of 30 to 40 is in the high category. The mean value of environmental accounting reporting is 34.05 which means that reporting is included in the high category.

d) The environmental audit variable is measured by 3 indicator questions using a Likert scale of 1 to 4. If all questions are answered with a number one, the lowest score is 3 while the highest value is 12. The range of answers starts with 3 to 12 which if using the three box criteria method, then values 3 to 6 are in the low category, values 6 to 9 are in the medium category, and values 9 to 12 are in the high category. The audit mean value is 10.80 which means that environmental audit is included in the high category.
### 3.2 Instrument Validity and Reliability Test

Testing the validity and reliability of the instrument was carried out before the questionnaire was distributed. Validity testing was carried out using the product moment correlation method from Pearson. The test was carried out by looking at the correlation coefficient number \((R_{xy})\) which states the relationship between the question scores and the total score (item-total correlation). We compare the results with the \(r\) table where \(df=n-2\) with 5%. If \(r\) table < \(r\) count then the results are declared valid. The following is a table showing the results of testing the validity of the instrument using 20 samples presented in table 2.

**Table 2. Results of the Research Instrument Validity Test**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Awareness</td>
<td>Responsibility</td>
</tr>
<tr>
<td>0.942</td>
<td>0.833</td>
</tr>
<tr>
<td>0.582</td>
<td>0.910</td>
</tr>
<tr>
<td>0.830</td>
<td>0.820</td>
</tr>
<tr>
<td>0.773</td>
<td>0.984</td>
</tr>
<tr>
<td>0.105</td>
<td>0.118</td>
</tr>
<tr>
<td>0.789</td>
<td>0.812</td>
</tr>
<tr>
<td>0.991</td>
<td>0.852</td>
</tr>
<tr>
<td>0.615</td>
<td>0.145</td>
</tr>
<tr>
<td>0.621</td>
<td></td>
</tr>
</tbody>
</table>

**Source:** Primary data processed, 2023

Based on table 2, the results of validity testing using the Pearson correlation method show that the environmental awareness, environmental responsibility, environmental involvement, environmental accounting reporting and environmental auditing questionnaires are valid. Instrument reliability was tested using the Cronbach Alpha coefficient presented in table 3.

**Table 3. Research Instrument Reliability Test Results**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Cronbach's alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Awareness</td>
<td>0.972</td>
</tr>
<tr>
<td>Responsibility</td>
<td>0.974</td>
</tr>
<tr>
<td>Involvement</td>
<td>0.918</td>
</tr>
<tr>
<td>Reporting</td>
<td>0.111</td>
</tr>
<tr>
<td>audits</td>
<td>0.948</td>
</tr>
</tbody>
</table>

**Source:** Primary data processed, 2023

Based on table 3 reliability it is known that environmental awareness has an alpha of 0.972; environmental responsibility 0.974; environmental involvement 0.918; environmental accounting reporting 0.111 and environmental auditing 0.948. According to Nunnally (1960) in Ghozali (2006) a variable is said to be reliable if the alpha coefficient is greater than 0.6. Thus all the variables in this study are reliable.

### 3.3 Hypothesis Testing Results

The research hypothesis was tested using the Independent sample T-test. This test was chosen because this study uses two different sample groups, namely local chain management hotels and international chain management hotels in Bali. Table 4 shows the results of testing the hypothesis in this study:

**Table 4. Research Hypothesis Testing Results**

<table>
<thead>
<tr>
<th>Information</th>
<th>Sig. (2-tailed)</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Awareness</td>
<td>0.645</td>
<td>Rejected</td>
</tr>
<tr>
<td>Environmental responsibility</td>
<td>0.112</td>
<td>Accepted</td>
</tr>
<tr>
<td>Environmental Engagement</td>
<td>0.139</td>
<td>Accepted</td>
</tr>
<tr>
<td>Environmental Reporting</td>
<td>0.111</td>
<td>Accepted</td>
</tr>
<tr>
<td>Environmental Audit</td>
<td>0.111</td>
<td>Accepted</td>
</tr>
</tbody>
</table>

**Source:** Primary data processed, 2023
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Based on table 4 shows that environmental awareness has a value of 0.645 or Sig. (2-tailed) > 0.05 so that the first hypothesis (H1) is rejected. Environmental responsibility that shows a value of 0.112 or Sig. (2-tailed) < 0.05 so the second hypothesis (H2) is accepted. Involvement in protecting the environment shows a value of 0.139 or Sig. (2-tailed) > 0.05 then H3 is accepted. Reporting shows a value of 0.111 or Sig. (2-tailed) < 0.05 then H4 is accepted. Environmental audit shows a value of 0.111Sig. (2-tailed) < 0.05 then H5 is accepted.

There is no significant difference in awareness of the environment between local hotel chain management and hotel international chain management in Bali. Both hotel management have the same awareness to protect the environment. This means that the two star-rated hotel groups have the same average environmental awareness. There is no difference between the two groups due to the awareness of all tourism actors in Bali of the importance of protecting the environment for the sustainability of Bali tourism which depends on nature and culture. Besides that, the most important thing according to Teoh and Thong (1984) is the existence of environmental regulations from the government. Another thing that is no less important is the activeness of environmental groups and the existence of environmental programs from hotel and non-hospitality associations to encourage higher environmental awareness of tourism actors in Bali. The results of this study are in line with the results of previous studies, namely research conducted by Yousef (2003); Susilo (2008); Sari and Hadiprajitno (2013); and Musyarofah (2013).

There are differences in environmental responsibility between hotel local chain management and hotel international chain management. Environmental responsibility is reflected in: the availability of human resources and economic resources in the hotel associated with the hotel's responsibility to the environment; there is an effort from the hotel to deal with waste generated from hotel activities; there are efforts made by the hotel to deal with hotel waste even though it is experiencing a loss; and the existence of a hotel business in dealing with company waste even though the hotel has to close its business. According to the test results, the two hotel groups that were the respondents in this study differed in their implementation of environmental responsibility. Environmental awareness in the same two hotel management groups did not generate the same sense of responsibility. The hotel international chain management group has an average greater responsibility than the hotel local chain management. The difference in responsibility between hotel local chain management and hotel international chain management in this study is in line with the results of previous research conducted by Susilo (2008);

There are differences in the company's involvement in environmental issues between hotel local chain management and hotel international chain management. This is in line with the opinion expressed by Teoh and Thong (1984), a company is said to have concern for the environment, so it must first have environmental awareness and then be involved in protecting the environment to fulfill its responsibilities towards the environment. Furthermore, the company reports environmental accounting and the final step is to conduct an environmental audit to evaluate the effectiveness of the company's environmental activities. The difference in involvement between the two groups is due to the difference in responsibility between the two groups studied. The involvement of the two hotel management groups is indicated by the existence of an environmental unit in the hotel, the availability of funds for environmental protection, the availability of programs or procedures that reduce the consumption of natural resources, the availability of environmental safety studies if the hotel uses machinery in its production activities (Teoh and Thong, 1984). The results of this study are in line with the results of Susilo's research (2008); Sari and Hadiprajitno (2013); Musyarofah (2013) found differences in environmental responsibility between the two groups studied. This result differs from the findings of Yousef (2003) who found that there was no difference in responsibility between the two groups studied, namely the United Arab Emirates and Jordan, the availability of funds for environmental protection, the availability of programs or procedures that reduce the consumption of natural resources, the availability of environmental safety studies if hotels use machines in their production activities (Teoh and Thong, 1984).

There are differences in environmental accounting reporting between hotel local chain management and hotel international chain management. The two hotels differ in their environmental accounting reporting. According to Utomo in Hidayat (2016), environmental accounting is less popular because it is possible for companies in Indonesia to use annual reports only as reports to shareholders and creditors or as information for potential investors. Environmental accounting reporting is indicated by the process of reducing or limiting waste; tracing of environmental activity costs; the consideration of environmental aspects in investment or exchange decisions; the product design process is influenced by considerations of environmental aspects; the product design process is influenced by customers and other stakeholders; the hotel always strives to meet and comply with environmental standards; hotels always support the achievement of sustainable profit growth; identify product raw materials that are harmful to the environment; and reducing or limiting raw materials that harm the environment (Teoh and Thong, 1984).

IV. CONCLUSION AND SUGGESTION

Based on the research conducted, it can be concluded that there are differences in environmental accounting reporting between the two groups studied. There are differences in environmental audits between hotel local chain management and hotel international chain management. An environmental audit is conducted to evaluate the environmental activities carried out by the hotel. The difference in the reporting of environmental accounting in these two hotel groups has the impact of differences in the implementation of environmental audits.
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The existence of differences in responsibility for the environment, involvement in protecting the environment, environmental accounting reporting and environmental audits shows that the two hotel management groups in Bali have an average awareness of protecting the environment, but their environmental awareness does not foster the same environmental responsibility. International hotel chain management has a greater responsibility for the environment compared to hotel local chain management. This is accompanied by greater involvement in protecting the environment and reporting environmental accounting. Environmental accounting reporting is carried out followed by an environmental audit to evaluate the performance of the company's activities in protecting the environment.

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