



Research Article

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Student's Literacy on Green Accounting Concept and its Challenges Ahead

Iskandar*

Ledy Setiawati

Ferry Diyanti

Dhina Mustika Sari

Accounting Department, Mulawarman University,
Jl. Kuaro, Gn. Kelua, Kec. Samarinda Ulu, Kabupaten Paser,
Kalimantan Timur 75119, Indonesia

*Corresponding Author

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Abstract

Accounting students are required to conceive how to arrange a sustainability report and conceive its concept. The aims of this study are to interpret student's literacy on defining green accounting and find out the challenge on improving it. This qualitative study was conducted in an interpretive paradigm using a phenomenological approach. The analysis unit are the higher education institutions which have an accounting bachelor degree program in East Kalimantan. The interpretation of student's literacy was defined based on their conceptions of green accounting concepts which involve qualitative characteristic information generated, the principles underlying green accounting, and the components of green accounting reports. This research finds out that the accounting student's literacy on green accounting was divided into three results: (1) high literacy in defining qualitative characteristic information generated, (2) low literacy in defining the principles underlying green accounting, and (3) low literacy in defining the components of green accounting reports. There is still a lack of understanding in defining some green accounting concepts, caused by: (1) student's lack of interest and curiosity to explore this concept inclusively, (2) some higher education institutions have not provided a specific subject in learning it, (3) the lack of student's research in exploring some themes related to green accounting. This study implies that accounting bachelor degree programs should have several curriculum evolutions to improve it. Inclusive interpretations are crucial to describe the literacy of green accounting concepts in higher education institutions including lecturers' literacy on it, meanwhile this study has focused on student's literacy only.

Keywords: green accounting, student's literacy

1. Introduction

Economic efficiency is a must, but it is not the only requirement for business continuity. Stakeholders demand organizations to be socially and environmentally responsible, where balancing financial performance and corporate sustainability is a major challenge in today's economic environment

(Abdala et al, 2014). Archana (2017) explains that responsibility for the environment is one of the most important areas of social responsibility. Companies face challenges to do the right thing. Therefore, companies must pay attention to the surrounding environment. It explained that improved environmental performance is a potential source of competitive advantage leading to more efficient processes, increased productivity, lower compliance costs and new market opportunities. Thus, integrating environmental accounting into the company's accounting information system is very important. Having a proper environmental accounting system will enable management to make more informed decisions on matters related.

The greater the impact caused by company activities on environmental problems and nature conservation, in this case the accounting sector plays a role in environmental conservation efforts, namely through voluntary disclosure in its financial statements related to environmental cost (Ningsih and Rachmawati, 2017). The existence of environmental cost will allow the accounting profession to provide more relevant information (Magablih, 2017). Lako (2018) explains that the transformation from conservative accounting to green accounting is increasingly important and urgent. Green accounting makes environmental expenditure to be part of operational cost, so new idea must be adopted for product design development, maintaining profits, improving environmental performance or to meet the rules of green accounting itself (Tu and Huang, 2015).

The concept of green accounting needs to be developed to overcome the weaknesses of conventional accounting that are not sensitive to social and environmental issues in accounting process. Green accounting is considered more appropriate because it is more fundamental and ecological (Thornton, 2013; Gallhofer and Haslam, 1997; Greenham, 2010; Lako, 2018). Green accounting is part of the development. The use of green accounting as a tool for decision making will be able to reduce environmental costs in the right way and at the same time be more able to apply greener technologies (Agarwal and Kalpaja, 2018). This concept is also the proof of accountants' concern for social and environmental life. Mastery and understanding of this concept is a must for an accountant so it can reduce the dogma that accountants only care about corporate and business interests compared to the interests of stakeholders and the environment related to the corporation.

Students as prospective accountants are expected to have an adequate understanding of the concept, so they are expected to be able to contribute directly after graduate. In fact, students tend to care less because they think that this does not have a direct impact on themselves and the life around them. Most students do not understand the issues, concepts or practices related to green accounting, even though the demand for accountants who are reliable and able to master this field is a necessity.

The educational process, especially accounting at the university level, is expected to be able to form prospective accountants who care and are responsive to social and environmental interests. The role of higher education as one of the stepping stones to create reliable prospective accountants has actually started at the Study Program level, where the curriculum adjustment process has been carried out. Several major courses have currently adopted the concept of green accounting into the material being taught, such as financial accounting courses and accounting theory. Courses that specifically discuss the concept of green accounting, such as sustainability accounting course is starting to be included in the curriculum as elective course to attract accounting students' interest.

Some accounting students have also studied the issue of green accounting in their undergraduate thesis research, although it is still less than other issues during the last 3 (three) years. They get information about green accounting through social media, journals, articles and other media which are currently very easy to obtain. It is hoped that their level of literacy towards green accounting will be better because they get direct understanding from the supervisor during the undergraduate thesis writing process. The introduction of a comprehensive green accounting concept is expected to be able to create students who are competent in carrying out the correct accounting process to produce sustainable accounting reporting.

This phenomenon is interesting to study where the literacy level of accounting students regarding the concept of green accounting is expected to increase along with the information convenience and open access as well as the existence of the understanding process provided by the

lecturer through the lecture material being taught and during the undergraduate thesis process guidance. Referring to that, the problem raised in this study is how the literacy level of accounting students towards the concept of green accounting. Literacy of this concept will be seen from the ability of informants to understand and explain 3 (three) main subjects, namely: the qualitative characteristics of green accounting information, green accounting principles and the components of green accounting report (Lako, 2018: 100-108). The purpose of this study is to provide a complete description of the phenomenon regarding the literacy level of accounting students, including find out the factors that affect the literacy level if possible.

2. Research Method

This research used qualitative research with phenomenological approach. This approach was used with the aim of capturing the whole phenomenon regarding the literacy level of accounting students as informant subjects in interpreting the concept of green accounting. Data collection and processing was carried out intensively for about 10 (ten) weeks, starting from mid-August to the end of October 2019.

In this research, the technique of collecting data used participant observation and direct interview with informant through Focus Group Discussion (FGD) activity. Informant is considered to have the same position as researcher, so the researchers try to see from the informant's point of view how they understand and interpret the concept being discussed. The informants selected in this study were based on several predetermined criteria, namely:

1. Students who are registered and active in the Undergraduate Accounting Study Program at State and Private Universities in the East Kalimantan Province
2. Accounting students minimally in semester VII (seven) who are in the process of drafting undergraduate thesis and taking undergraduate thesis theme regarding the concept of green accounting. The assumption that underlies this criterion is that the student has previous understanding of green accounting obtained through the courses that have been taken as well as from journals, articles, books and other learning media. Another assumption is that these students have also gained direct understanding from the supervisor during the undergraduate thesis preparation process.

The literacy level of accounting students in interpreting green accounting will be seen from 3 (three) subjects, namely: the level of literacy on qualitative characteristics of the information generated, the principles underlying green accounting and the components of green accounting report that must be presented (Lako, 2018: 100-108). The explanation is as follows:

1. Literacy level regarding the qualitative characteristics of the information produced, consisting of:
 - a. literacy level regarding accounting information users
 - b. literacy level regarding green accounting information constraints
 - c. literacy level regarding the special and pervasive requirements required by accounting information users
 - d. literacy level regarding the main criteria and requirements in presenting green accounting information, namely: 1) integrated and accountable; 2) relevant; 3) reliable; 4) transparent; 5) comparability.
2. The level of literacy regarding the principles of green accounting consists of
 - a. literacy level regarding the principle of sustainability
 - b. literacy level regarding the principle of asset recognition
 - c. literacy level regarding the principle of liability recognition
 - d. literacy level regarding the matching principle in measuring the value between cost-benefit and effort-achievement of social and environmental responsibility
 - e. literacy level regarding the principles of the integrated accounting process
 - f. literacy level regarding the principles of integrated accounting information disclosure and

reporting

3. The literacy level regarding the components of the Green Accounting Report consists of:
 - a. literacy level regarding the entity's asset structure
 - b. literacy level regarding the structure of the entity's liability account
 - c. literacy level regarding the structure of the entity's equity accounts
 - d. literacy level regarding the structure of the production cost accounts and entity's operation costs

3. Result and Discussion

3.1 Informant Description

This study involved 18 (eighteen) students as informants from Mulawarman University, 17 August 1945 University of Samarinda, Balikpapan University, and STIE Nusantara Sangatta. The informant is a student of the Undergraduate Accounting Study Program minimally in semester VII who is compiling undergraduate thesis, and specifically the thesis topic is in the area of green accounting, such as disclosure of Corporate Social Responsibility (CSR), environmental responsibility management audit, and other related topics.

From those 4 (four) colleges which the informants originated, only Mulawarman University provides selective courses in the curriculum that discuss green accounting, namely in the Sustainability Accounting course as well as being partially discussed in several other courses. Based on this situation, informants from Mulawarman University were all students in 2015 study class, where starting from 2015 study year the curriculum has determined the concentration of the scientific field, so it is more appropriate to explore students' understanding of green accounting. Meanwhile, other universities do not specifically provide special courses that discuss green accounting, but are discussed in other subjects such as Business and Professional Ethics but not in-depth discussion, therefore informants from university consisted of 2014 and 2015 study class students who meet criteria as research informants. The details of the number of research informants based on the study batch are presented as follows:

Table 1: Details of the number of research informants

Mulawarman University (Unmul)	8 students
Balikpapan University (Uniba)	3 students
17 August 1945 University of Samarinda	3 students
STIE Nusantara Sangatta (STIENUS)	4 students
Total	18 students

3.2 The Result of Student Literacy Mapping regarding the concept of Green Accounting

Mapping results are based on 3 (three) main topics, namely: the level of literacy towards the qualitative characteristics of the information produced, the fundamental principles underlying green accounting and the components of green accounting report that must be presented. The first mapping result showed that the literacy level of all informants on the qualitative characteristics of the information produced is high. The first question asked was concerned about the user of green accounting information. All informants were able to explain that the users of this information were not only limited to internal companies, but also from external parties. The explanations that the students gave turned out not only to stop at the users of green accounting information, but they were also able to provide explanations related to the benefits of green accounting information for each party.

Informants were also able to explain about the second question given, which was related to

constraints or problems related to green accounting information. The first obstacle, namely the comparison between cost and benefit, was well answered by all informants. Informants were able to explain that this was a constraint because most of green accounting information was only measured based on the amount of expenditure (cost), but in the end it was often debated because of the difficulty in measuring the benefits obtained when the expense (cost) had occurred. The second obstacle, which is related to the comparison between effort and result, was also well explained by all informants. The efforts made by the company in the form of social and environmental responsibility, according to them, must be proportional to the feedback received by the company. The informants were also able to explain that this was a problem because often the costs allocated by the company were already very large, but the feedback they received was even smaller. According to the informant, this was also a problem when the community considered that the efforts made by the company have not been maximal, but the negative impact caused actually affected people's lives.

The comparison of the information materiality presented became the next obstacle which can also be explained by the informants. Based on the information got from informants, the concept of materiality has been obtained when students learned basic accounting courses, so they were familiar with the term. According to informants, the materiality of information is related to the value of the information presented where this value can have an influence on the judgment of those who believe the information. Materiality is also more associated with misstatements in financial statements. According to the informants, materiality becomes an obstacle because the benchmarks in determining the materiality of information related to the application of green accounting are still being debated, considering that users of information were not only from internal parties but also external parties.

The next question is about the constraints associated with the measurement comparison between integrated quantitative and qualitative accounting information. Informants were able to explain that this obstacle arose because quantitative information in the form of financial reports, particularly those related to social and environmental responsibility costs, was often not integrated with qualitative information that provided an overview of the implementation of those activities. This directly created difficulties in comparing the between one information to another, so it affected the users of the information in making decisions.

Specific and pervasive requirements were the next questions given to informants. All informants considered that this special and pervasive requirement was important because information must have benefits according to user need so it could be used as a consideration in making decisions. Some of the decisions related to green accounting were also well explained by all informants. The final topic of discussing the qualitative characteristics of the information produced was the main criteria and requirements in the presentation of green accounting information. All informants were also able to explain well each of the criteria discussed by the researcher. The criteria for integrated and accountable, relevant, reliable, transparent and comparable according to the informants must be fulfilled by the company when preparing social and environmental responsibility reports. If one of those criteria is not met, the information presented will be doubtful and cannot be used by all parties who need it.

The next phenomenon explored by researchers is the literacy of accounting students towards green accounting principles. All students who became informants could explain the concept of sustainability principles, matching principles, integrated accounting processes, integrated reporting and disclosure of accounting information, but when explored deeper, they were unable to explain the relationship between those principles and green accounting practices applied by the company. Informants also experienced difficulties when asked to explain their understanding of the asset recognition principles and liability recognition. Some informants seemed to lack understanding of those principles and admitted that they did not learn about those principles during lectures. The informant was unable to provide an explanation when the questions were related and led to the accounts in the financial statements, especially those related to social and environmental responsibility. This phenomenon showed that the literacy level towards the principles underlying

green accounting was still low.

The final question given to the informant was related to the components in the green accounting report, which was seen from the structure of asset, liability, equity, production cost account and operating cost of the entity. The questions asked by the researcher regarding those components could not be answered by the informants. It is the same case with the previous condition, where all informants tended to be unable to answer or hesitated to provide answers when questions were related to control of accounts in the financial statements. This phenomenon showed that literacy towards the components of green accounting statement was still very low.

4. Discussion

Understanding the concept of green accounting is very important for students considering that this information is not only needed by internal parties, but also external parties of the company. Accounting students as prospective accountants will later have an important role both internally and externally. In accordance with the stakeholder theory, the sustainability of a company is inseparable from the role of stakeholders with various backgrounds of different interests. Students as prospective accountants should understand the concept of green accounting so when their position is later in the internal company, they can be the one who directs and ensures that the company has carried out social and environmental responsibility in accordance with the demands of the stakeholders. Likewise, when students become part of external party to the company, it is hoped that they will be able to assist in supervising social and environmental responsibility reports of company, especially for the benefit of the community. The results of the literacy mapping of accounting students in several universities showed that the level of literacy towards the qualitative characteristics of the information produced was high, the level of literacy towards the principles underlying green accounting was still low and for the components of the green accounting report was still very low.

There were several things that caused the literacy level of accounting students to be low in understanding the second component and very low in understanding the third component of the green accounting concept. First, students' lack of interest and curiosity in understanding the concept of green accounting as a whole, this was based on the admission of several students as the informant, where green accounting was actually a topic they often read and hear about, but this did not necessarily make students be able to understand green accounting. Students only understood that a company implemented green accounting means that they have implemented social and environmental responsibility of corporation in the form of CSR programs, such as providing scholarship assistance or social assistance, but students did not find out more about how to report CSR funds allocated by the company.

Some students only have an understanding of the basic concept of green accounting, such as the user and benefit of green accounting information because curiosity about this topic was only on the surface theory. Working on undergraduate thesis that has connection with the green accounting theme did not necessarily encourage them to learn and to know more about the green accounting concept. Students tended to just read without understanding what has been read, so even though there were quite a lot of references or literature that discussed green accounting, it was not too significant in affecting the level of student's understanding. Some students also explained that they currently did not have interest or got a direct impact from companies that implemented green accounting so their curiosity about green accounting was still low.

Second, several universities have not presented separate courses in the curriculum that discussed the concept of green accounting. The concept of green accounting is taught to students, but it is taught in subjects that were related to the topic, such as: Management Accounting, Management Control Systems, Business and Professional Ethics. This became a problem because the concept of green accounting was not discussed deeply and comprehensively, considering that the topics of discussion of those courses were also quite dense. This material is taught in 1 (one) lecture meeting, so some students admitted that they have difficulty remembering what the lecturer has

explained related to the material. The lack of information about the concepts and practices of green accounting made the students difficult when discussed the theme of green accounting. The students' opinion about green accounting was a material that was difficult to understand, especially if it was only presented in 1 (one) lecture meeting turned out in influencing the level of student's understanding.

Mapping result also showed that the understanding level of accounting students at Mulawarman University towards green accounting was better than accounting students from other universities. This happened because the Accounting Study Program at Mulawarman University has presented separate courses in the curriculum that discussed about green accounting, namely in the Sustainability Accounting course. Students got the opportunity to get deeper and more comprehensive information when taking the course through the learning process and assignments given by Lecturer.

Third, student's research in the form of undergraduate thesis that explored themes related to green accounting was still limited. Based on the explanation from several students who became informants, the number of students who took the green accounting theme was less than general themes such as company financial performance, accounting information system and cost of goods manufactured. This made students who take the theme of green accounting should try to learn and understand themselves by only getting limited help from friends who can be invited to share about the theme. Assistance from the Supervising Lecturer in directing and providing an understanding of green accounting was also limited because different frequency of meetings for each guidance section and the guidance time was not too long (Wijiastuti and Nurhayati, 2021).

5. Conclusion

The results of the mapping showed that the level of literacy towards the qualitative characteristics of the information produced was high, the level of literacy towards the principles underlying green accounting was still low and the level of literacy towards the components of the green accounting report was still very low. This condition was caused by several factors, namely: 1) students' lack of interest and curiosity in knowing the concept of green accounting as a whole; 2) several universities have not presented separate courses in the curriculum that discussed the concept of green accounting; and 3) only few of student's research explored themes related to green accounting.

In the future, the Undergraduate Accounting Study Program is expected to be more intensive in holding seminars and public lectures related to green accounting themes for accounting students so they can gain knowledge not only from lectures, but also get the latest information about green accounting. Supervisors should also be more active in directing students in taking green accounting themes for undergraduate thesis research so there will be more exploration of ideas and empirical findings related to the theme.

The results of this study have some implications for the future curriculum development of the Undergraduate Accounting Study Program, where one of them was by presenting courses specifically discussing the concept of green accounting. This effort was expected to have direct impact on increasing student's literacy towards the concept. This study has limitations because it only focused on the literacy of accounting students, while an inclusive interpretation was very important to describe the literacy level of the concept of green accounting comprehensively in university. The next research is expected to be able to provide a description of literacy not only limited to students, but also able to provide different interpretations from the point of view of other academicians.

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