



## The Implementation of Green Accounting Based on University Social Responsibility (USR) in Muhammadiyah University of Sidoarjo

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### ABSTRACT

This study aims to determine the application of green accounting based on university social responsibility (USR) at Muhammadiyah University of Sidoarjo. The population in this study were officials at Muhammadiyah University of Sidoarjo. Data collection techniques in this study are documentation and questionnaires. The sampling technique used is simple random sampling. The design of this research is descriptive research. In the questionnaire presents elements of the statement about 1) environmental awareness on the implementation of green accounting based on university social responsibility in UMSIDA. 2) environmental involvement on green accounting implementation based on university social responsibility in UMSIDA 3) environmental report on green accounting implementation based on university social responsibility in UMSIDA 4) environmental audit on green accounting implementation based on university social responsibility in UMSIDA. The result of the research by collecting questionnaires and processing it with SPSS 18.0 got the conclusion that the environmental awareness is high enough indicated by the percentage. Medium environmental involvement because UMSIDA has not implemented green accounting in the policy. With no policy so that the results of the questionnaire for the report is low and environmental audits also do not exist. It is expected that UMSIDA can apply Green Accounting to increase efficiency and operational effectiveness

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## INTRODUCTION

In line with the encouragement of Corporate Social Responsibility (CSR) to the people, planet and profit in the last 3-5 years, to the corporations, both public and non-public, the corporation's degree of understanding becomes the topic of interest to be studied. This degree of understanding can be shown through the degree of disclosure of CSR impact information on sustainability accounting. In addition, the community began to realize how important the environmental sustainability for human survival in the future. Environmental issues directly or indirectly affect business activities in an organization. This necessarily forces the company's business activities to adapt to environmental issues. The form of adjustment of the company's business activities to environmental issues is accounting. Accounting as calculate science means that accounting applies environmental cost calculation in the implementation of knowledge for corporate transparency purposes in disclosing environmental information as the impact of business activities done by a company (Kartikasari, 2012, p.1). Accounting science that studies specifically in the field of environment called green accounting or also known as enviromental accounting

The development of environmental accounting began in the mid-1990s in which the International Accounting Standards Committee or IASC developed concepts on environmental accounting and human rights audits. Further, the industry standard on environmental accounting began to evolve and professional auditors began to issue principles on environmental auditing (Kartikasari, 2012, p.3). In Japan, in May 2000, The Environmental Environment or Environmental Agency issued an environmental accounting guide which was subsequently refined in 2002 and 2005 and required all state enterprises to apply environmental accounting. At the moment, environmental accounting in Japan is as important as conventional accounting (Kartikasari, 2012, p.3).

The definition of Environmental Accounting according to the United States Environment Protection Agency (US-EPA), Green Accounting is identifying and measuring the cost of environmental materials and activities and using this information for environmental management

decisions. The purpose is to recognize and mitigate the negative environmental effects of activities and systems (US-EPA Memorandum, 1995, p.20). Further, US-EPA divides the term environmental accounting into two main dimensions, the first is the environmental accounting is a cost that directly impacts the company as a whole. Second, environmental accounting is an individual cost, society and environment of a company that can not be accounted for.

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Environmental Accounting based on Corporate Social Responsibility (CSR) has been implemented. large corporations as a form of corporate responsibility for the environmental impact of their business activities. The form of CSR in Higher Education is known as University Social Responsibility or USR. The definition of USR described in the research of Maylia Pramono Sari and Paulus Basuki Hadiprajitno is the Universiy Social Responsibility is basically an ethical policy that affects the quality of the performance of the college community which includes students, managers, teachers, and all college employees through responsibility management of educational, cognitive impact , employment, and the environment produced by universities through an interactive dialogue with the community in order to produce sustainable human development (Sari & Hadiprajitno, 2013, p.178).

In Indonesia, accounting standards used as references have not required universities to disclose social information relating to activities undertaken, especially in the responsibility of universities to the environmental impacts resulting from the activities undertaken. This obligation causes the college to consider the benefits and losses to be obtained before deciding to disclose the social information.

The college will disclose social information if the benefits of disclosing the social information are valued more than the loss. But it would be wise if the college is not only concerned with internal interests alone, but the interests of other parties such as students, employees, lecturers, and communities affected by environmental and social activities of universities either directly or indirectly also must be considered and taken into account .

In a study by Teoh and Thong (1986) in Yousef (2003) that an organization can be categorized as contributing to environmental protection if it has environmental awareness itself, followed by its involvement in environmental issues (Environmental Involvement ). This needs to be followed by environmental reporting, especially organizational performance in overcoming the impact of the organization's activities on the environment, which is then enhanced by environmental auditing activities to measure and evaluate organizational performance. Therefore it can be concluded that at least four factors are needed in terms of the organization's responsibility to the environment is environmental concern, environmental involvement, environmental report, and environmental audit.

In its development several universities have implemented Green Accounting based on USR, one of which is State University of Solo. Some findings that although applied by USR based Green accounting is not yet all elements in the University are able to understand and apply Green Accounting

In its development, Muhammadiyah University of Sidoarjo needs to improve itself in the management of its management. Where one form of improved management governance is to show accountability both performance and finance. In order for Muhammadiyah University of Sidoarjo to perform well in all stakeholders, there must be understanding and then the application of Green Accounting based on USR within Muhammadiyah University of Sidoarjo. To know the level of understanding and how the application of Green Accounting then we must do the analysis on the level of understanding and application of Green Accounting at Muhammadiyah University of Sidoarjo.

Given the fact that it is considered essential to implement Green Accounting at the University level, the research problem formulated in this study

is: how is the understanding and implementation of Green accounting based on University Social Responsibility (USR) at the University of Muhammadiyah Sidoarjo.

## **LITERATURE STUDY**

### **Green Accounting**

Accounting is a science that influenced and influenced its environment. Along with the development of the period where the concern for the environment began to get the attention of the community, it emerged the discourse of social accounting and environmental accounting that ultimately led to the concept of Socio Economic Environmental Accounting (SEEC) which is a brief explanation of the definition of Triple Bottom Line (Wiedmann & Manfred, 2006). Which is the accounting reporting to the public include economic performance, environmental performance and social performance. Environmental accounting is the identification, measurement and allocation of environmental costs and the integration of costs into business decision making and communicating the results to the company's stockholders (Astuti, 2002 in Wahyudi, 2012)

Green accounting or environmental accounting is the incorporation of benefits and environmental costs into accounting practices and the incorporation of environmental costs into business decisions (Uno, 2004). This concept began to develop since the 1970s. In the 1990s, the IASC (The International Accounting Standards Committee) developed a conceptualizing of international accounting principles, including the development of environmental accounting. The AICPA (American Institute of Certified Public Accountants) also issues universal environmental auditing principles.

Bell & Lehman (1999) define environmental accounting as: "Green accounting is one of the contemporary concepts in accounting that support the green movement in the company or organization by recognizing, quantifying, measuring and disclosing the contribution of the environment to the business process" . Environmental accounting that describes efforts to combine environmental benefits and costs into economic decision making or a business financial result, Green Accounting illustrates an effort to

combine environmental benefits and costs into economic decision-making. Environmental accounting firms are concerned with the environmental impact of a business, national environmental accounting strives to achieve the same at the state-level

According to Cohen & Robbins (2011, p.190) "Environmental accounting collects, analyzes, assesses, and prepares reports of environmental and environmental data and costs. This form of accounting is central to many aspects of governmental policy as well. Consequently, environmental accounting has become a key aspect of green business and responsible economic development". This means that green accounting collects, analyzes, estimates, and prepares reports on both environmental and financial data in order to reduce environmental impact and costs. This form of accounting centers on some aspects of government policy as best as possible. Consequently, environmental accounting is an important aspect of green business concept and responsible economic development.

### ***Green Accounting based University Social Responsibility***

In Indonesia, there has not been any adequate references in accounting standards that require universities to disclose social information relating to activities undertaken especially in the responsibility of universities to the environmental impacts resulting from the activities undertaken. Since the absence of regulatory rules causes the university to consider the amount of benefits and losses to be obtained before deciding whether to disclose such social information or not. Therefore prior to disclosure of social information, the college will assess whether the action gives greater value than its loss. And it would be better and wise if the colleges are not only concerned with internal interests, but also must emphasize the interests of other parties such as students, employees, lecturers and communities affected by environmental and social activities of universities either directly or indirectly also must be considered and taken into account.

A study conducted by Teoh & Thong (1986) in Yousef (2003) revealed that an organization can be categorized as contributing to environmental protection if it has environmental awareness itself,

followed by its involvement in environmental issues (Environmental Involvement). This needs to be followed by environmental reporting, especially organizational performance in overcoming the impact of the organization's activities on the environment, which is then enhanced by environmental auditing activities to measure and evaluate organizational performance. Therefore it can be concluded that at least four factors are needed in terms of the organization's responsibility to the environment is environmental concern, environmental involvement, environmental report, and environmental audit.

According to Susilo (2008, p.154) and research by Sari & Hadiprajitno (2013, p.179) the stages of university to apply Green Accounting based on University Social Responsibility are:

- a. Environmental awareness The first thing universities do in their planning to implement Green Accounting based on University Social Responsibility is to build awareness and commitment to the importance of USR. In this variable studied are conditions that cause respondents attention to environmental issues.
- b. Environmental Involvement USR-based Green Accounting implementation where conducted with a specially formed team directly under the supervision of a designated college leader and conducting implementation evaluations and measuring to application effectiveness.
- c. Environmental Reporting Environmental reporting is required for the decision-making process as well as for the purposes of material and relevant disclosure of information about universities. This variable is measured based on an answer to the availability of an entity's environmental performance report.
- d. Environmental Auditing Ensuring whether the performance of environmental conservation programs that have been conducted effectively and efficiently required environmental performance audit. This latter variable is measured based on the answer to the availability of the environmental performance audit report of higher education.

There are already several universities that begin to realize the application of USR, the form of environmental awareness by the campus, among others, is the greening in the campus environment, began to be available special parking bike users,

campus activities related to the environment. While at Muhammadiyah Sidoarjo University that has not manifested fully social responsibility towards the campus environment. This is reflected in several student and employee complaints about environmental issues that are about the lack of green open space, the lack of hot and unkempt parking lot. From the emergence of these problems raises the question whether Muhammadiyah University of Sidoarjo already has a concern in the field of environment as a form of social responsibility and the environment? Furthermore, it needs to be reviewed whether UMSIDA has financial report and environmental auditing activities as one form of report and control from campus internal party? So the purpose of this research is to know whether there is application of Green Accounting based on University Social Responsibility (USR) at Muhammadiyah University of Sidoarjo and to know how the level of understanding and application of Green Accounting based on University Social Responsibility (USR) at Muhammadiyah University of Sidoarjo.

**RESEARCH METHODOLOGY**

**Research Stages**

This study is a one-year action research study. This section explains in detail, covering the outline of research approaches, methods and procedures of data collection and analysis that will be used to achieve research objectives.

In the first stage will be conducted research activities namely literature review and interviews and retrieve primary data USR owned by UMSIDA, To obtain the results of research in accordance with the expectations of researchers, the activities undertaken is to collect additional data required, literature review. In the second stage will be distributed questionnaires to the respondents are structural officials in UMSIDA. After the questionnaires were scattered and reassembled. The third stage is the analysis of the questionnaires that have been returned and deserved to be analyzed. Furthermore, the results of the analysis are expected to assist the leadership of UMSIDA in the formulation of policies related to the application of Green Accounting.

Questionnaire In this study, researchers used non-test instruments where the media used were

questionnaires or questionnaires. The list of questions in the questionnaire was prepared based on the research variables ie respondents' assessment of responsibilities in managing the environment around the campus as measured by Teoh and Thong (1986) in Yousef (2003) where there are four environmental aspects: environmental awareness, environmental involvement (environmental involvement), environmental reporting (environmental reporting), and environmental auditing (environmental auditing). The variable is measured by a Likert scale model that measures the attitude and the real condition expressed by the numbers one through five.

Table 1. Likert Scale

Choice Score Answer	Meaning
A	1 Respondent disagrees, and in a real condition, the item is not available in his/ her workforce.
B	2 Respondent disagrees that the item is available in his/ her workforce
C	3 Respondent doesn't know the item
D	4 Respondent agrees if the item is available in his/ her workforce
E	5 Respondent agrees and in a real condition, the item is available in his/ her workforce

Research Instrument Application of Green Accounting Based on University Social Responsibility ((USR) at Muhammadiyah University of Sidoarjo is as follows:

1. Environmental Awareness

In the application of Green Accounting the most fundamental thing that must be done by universities adalah build awareness and komintmen on the importance of USR. So in this condition the variables studied are:

- a. The existence of environmental regulations
- b. The philosophy of the college leadership
- c. Suggestion from other college associations
- d. The existence of self-suggestion. The existence of suggestions from employees
- e. The suggestion of students

- f. The existence of suggestions from environmental agencies
- g. The existence of suggestions from the environmental community
- h. The existence of support Human Resources (HR) and Economic Resources (SDE)
- i. The support of master plan of research and community service. K. There is realization of research and community service

2. Environmental Involvement

In the USR-based Green Accounting application where conducted with a dedicated team formed directly under the supervision of a designated college leader and conducting an implementation evaluation and measuring it to the effectiveness of implementation. To measure environmental involvement in universities, according to Teoh & Thong (1986) in Yousef (2003) are:

- a. The existence of environmental units in universities
- b. The availability of funds for environmental protection
- c. The availability of programs or procedures that reduce the consumption of natural resources
- d. Availability of environmental safety studies if the entity uses machinery in its operational activities

3. Environmental Reporting

Environmental reporting is required for the decision-making process as well as for the purposes of material and relevant disclosure of information about universities. This variable is measured based on an answer to the availability of an entity's environmental performance report (Dunk, 2002, p.719-732):

- a. Environmental performance report
- b. Performance reports are reported on a consolidated basis
- c. Performance reports are published
- d. The environmental performance report attached to the publication

4. Environmental Auditing

The last step that must be done is to ascertain whether the performance of environmental conservation programs that have been done effectively and efficiently required an environmental performance audit. This is measured based on the answers to the

availability of environmental performance audit reports of higher education including:

- a. There is an audit report on green accounting at college
- b. There is an internal supervisory unit (SPI) on green accounting at College.

The analytical technique used in this research is descriptive analysis that focuses on the cause of the emergence of the attention of unit leaders on environmental issues, what conditions most influence each university leadership for attention to environmental problems, and how much attention. Likewise with environmental involvement, environmental reporting, and environmental auditing will also be assessed in this descriptive analysis

**RESULT AND DISCUSSION**

This study was conducted in January to March 2018. Data in this study were collected by distributing questionnaires. Questionnaires distributed a number of samples of 68 questionnaires with a return rate of 64.7059% ie a number of 44 questionnaires. The following is the details of the return of the questionnaire.

**Environmental Awareness**

Data obtained from questionnaires are categorized as environmental concerns that are divided into five categories, namely very high category, high category, medium category, low category, very low category. Here are the results of environmental awareness:

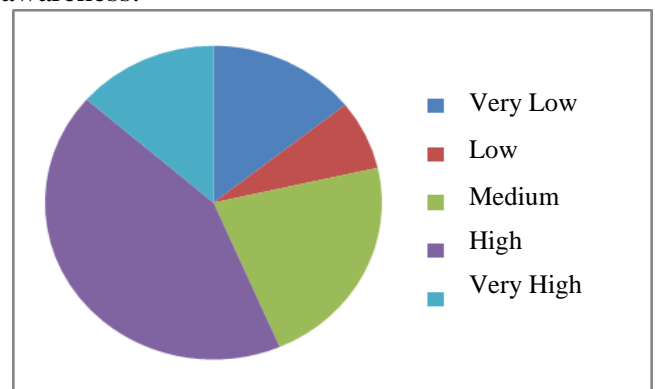


Figure 1. Environmental Awareness Pie Chart

From Figure 1 it can be seen that the majority environmental awareness is high with a percentage of 50% or a total of 21 respondents.

**Environmental Involved**

Environmental Involved Data obtained from questionnaires categorized as environmental involvement can be divided into five categories, namely very high category, high category, medium category, low category, very low category. Here are the results of the interest involvement.

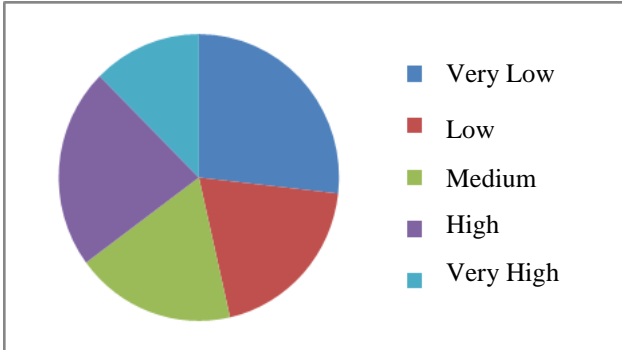


Figure 2. Environmental Involved Pie Chart

Environmental involvement of data distribution is quite evenly, but the tendency of the category is very low because it is the highest percentage of 27% or a number of 12 respondents.

**Environmental Reporting**

The data obtained from questionnaires categorized as environmental reports are divided into five categories, namely very high category, high category, medium category, low category, very low category. Here are the results of the interest report:

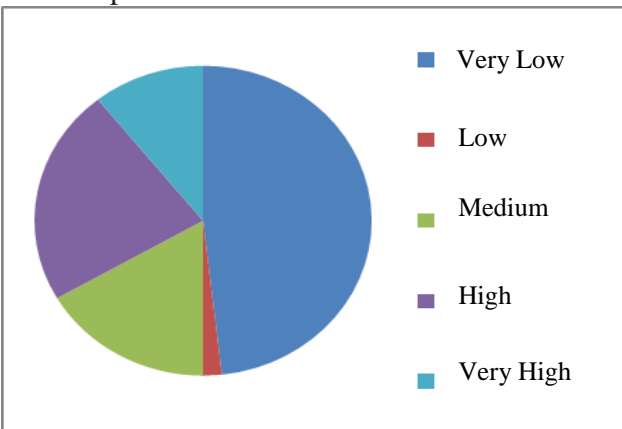


Figure 3. Environmental Reporting Pie Chart

In the chart shows the tendency of data on very low category that is 21 respondents (48%).

**Environmental Auditing**

Data obtained from questionnaires categorized as environmental audits are divided into five categories, namely very high category, high

category, medium category, low category, very low category. Here are the results of an environmental audit:

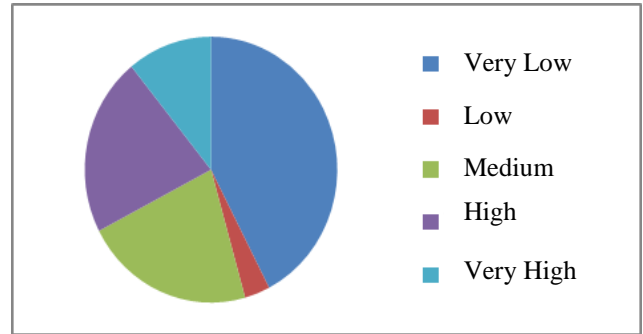


Figure 4. Environmental Auditing Pie Chart

In the chart shows the tendency of data on very low category that is 20 respondents (46%).

**DISCUSSION**

The result of this research shows that Muhammadiyah University of Sidoarjo has a high concern for the environment. Unfortunately UMSIDA's concern for the environment is inversely related to UMSIDA's involvement with the environment. This high environmental awareness is not realized with environmental involvement by the Muhammadiyah University of Sidoarjo. Neither environmental reporting and environmental auditing in UMSIDA are still categorized as low. Here are the results of research related four aspects of green accounting environment based on university social responsibility at Muhammadiyah University of Sidoarjo:

**Environmental Awareness**

The first step that colleges must take in planning Green Banking implementation is to build awareness and commitment to the importance of University Social Responsibility. Therefore, it is expected that the leaders of Muhammadiyah University of Sidoarjo agree and support if there are environmental regulations and USR in UMSIDA. Leaders must have a philosophy about the environment. Muhammadiyah University of Sidoarjo quite understand the importance of the environment, evidenced by the unit that handles the problem of greening which is realized maintenance of the park around the area of Muhammadiyah University of Sidoarjo. In all work units both lecturers and employees are aware of the environment by minimizing paper usage.

The head of Muhammadiyah University of Sidoarjo is willing if UMSIDA has a special budget for handling environmental issues and USR. UMSIDA has a special institution on master plan of research and community service that is Institute of Research and Community Service (LPPM). In the LPPM oversees several study centers but none have directed specifically to the Environment and USR, it is hoped that after the results of this study there will be environmental studies and USR.

### **Environmental Involvement**

Muhammadiyah University of Sidoarjo does not yet have a special unit that handles environmental problems, so the construction of facilities and infrastructure has not considered environmental problems. Muhammadiyah University of Sidoarjo needs to invest to support the application of USR-based green accounting. So on the criteria of environmental involvement UMSIDA on the low category ditunjukkan with lack of components or conditions that support the implementation of Green Accounting.

### **Environmental Reporting**

The Muhammadiyah University of Sidoarjo does not have an environmental performance report, therefore no transparent accountability report can be published and published periodically on the performance and value of funds spent on the environment.

### **Environmental Auditing**

Muhammadiyah University of Sidoarjo has no environmental report, nor is its environmental involvement too low. So it can be concluded that Muhammadiyah University of Sidoarjo although already has Internal Supervisory Unit but no one has special competence to audit the UMSIDA programs, funds and environmental performance.

## **CONCLUSION**

From the results of data collection and processing then analyzed, then the conclusions can be drawn from this study are:

- a. Environmental awareness of Muhammadiyah University of Sidoarjo on the application of Green Accounting based on USR is quite high, proved from the research that shows the

percentage of 50% where the majority of 21 respondents answered the high category.

- b. In terms of environmental involvement Muhammadiyah University of Sidoarjo associated with the application of USR-based green accounting data distribution evenly even though the high category has the greatest percentage ie 27% with 12 respondents.
- c. For environmental reporting at the University of Muhammadiyah Sidoarjo related to Green Accounting result is low, according to 48% of respondents data is 21 in low category.
- d. Environmental Audit based on research results in very low category, according to respondents data as much as 46% or 20 respondents.

Based on the above conclusions, the Muhammadiyah University of Sidoarjo needs to:

- a. Paying attention to the environmental community at Muhammadiyah University of Sidoarjo in order to implement Green Accounting based on USR.
- b. Realizing environmental awareness with concrete actions one example by forming a special unit that handles environmental problems at Muhammadiyah University of Sidoarjo.
- c. Muhammadiyah University of Sidoarjo needs to re-promote Clean Friday as one way to realize environmental engagement.
- d. Muhammadiyah University of Sidoarjo needs to allocate special budget to handle environmental problems, and also need to invest for environment around Muhammadiyah University of Sidoarjo.
- e. It has an environmental performance report that allocates special costs for the environment and is reported periodically and continuously.
- f. Conducting environmental audits conducted by the Internal Supervisory Unit, so that the SPI must have a competent person in the environment so that it can ensure that environmental related programs and environmental specific budget allocations that have been implemented by Muhammadiyah University of Sidoarjo can run effectively and efficiently.



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