

# Green Accounting Concept Based on University Social Responsibility

Hadi Sumarsono<sup>1</sup>, Satia Nur Maharani<sup>2</sup>, Mufazatul Istiqomah<sup>3</sup>

{hadi.sumarsono.fe@um.ac.id<sup>1</sup>, satia.nur.fe@um.ac.id<sup>2</sup>, mufazatulistiqomah@gmail.com<sup>3</sup>}

Universitas Negeri Malang, Malang, Indonesia<sup>1, 2, 3</sup>

**Abstract.** Green accounting is an accounting concept that seeks to report environmental contributions to business processes. The success of green accounting does not only focus on classifying environmental costs, but also on the ability to reduce the impact of company or organisation activities on the environment. Higher education as an educational institution implements green accounting as a form of responsibility towards the environment and society. Higher education social responsibility called University Social Responsibility (USR) is not only carried out through research but also contributions to the environment and society. USR is an ethical policy that involves the entire academic community who are responsible for the impact of higher education activities on society and the environment. The importance of USR in tertiary institutions is related to the formation of human resources who have superior competence in science, technology, and awareness of the environment. This article is a conceptual thought that presents a perspective on the concept of green accounting based on USR. This idea is described in four important points based on green accounting concept including environmental awareness, environmental involvement, environmental reporting, and environmental auditing. The application of green accounting is expected to be able to push universities towards a consensus regarding the concept of sustainability.

**Keywords:** Green Accounting, University Social Responsibility, Higher Education

## 1 Introduction

Environmental problems are important issues faced by the global community to date. These environmental issues include global warming, deforestation, land degradation, loss of biodiversity, air pollution, accumulation of plastic waste, acidification of seawater, and other problems that can exacerbate environmental conditions [1]. The United Nation Development Program (UNDP) states that by 2060 there will be at least 6 million deaths caused by air pollution. Humans play an important role in the environmental damage caused by their activities. The use of fossil energy, industrial activities, deforestation, transportation, agriculture, electricity consumption, and consumptive attitudes are triggers for global climate change [2]. The impacts resulting from climate change include rising global temperatures, more severe storms, rising sea surface temperatures, drought, loss of species, food crises, health risks, and poverty.

In 2013, Indonesia was ranked first by contributing 50% of illegal logging in the large timber sector [3]. Mangrove forests also experienced a global decline of around 38% in 2010 [4], and Indonesia has lost 40% of its mangrove forests in the last 30 years [5]. According to the 2018 Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES) report, Indonesia loses 680 thousand hectares of forest every year. The *Wahana Lingkungan Hidup Indonesia* (WALHI) notes that the causes of this deforestation are corporations, the government, and a combination of the two. Human actions in exploiting natural resources massively trigger a natural resource crisis in the next generation.

Efforts that can be made to minimise acts of destruction of nature, one of which is through regulation. Laws related to environmental management have been enacted since 1982, namely *Undang Undang no 4 tahun 1982*. In the accounting field, there is a Statement of Financial Accounting Standards (PSAK) number 1 concerning the presentation of financial statements, PSAK number 57 concerning provisions, contingent liabilities and contingent assets, PSAK number 33 concerning general mining, and PSAK no 64 concerning exploration and evaluation activities of mineral resource mining. In addition to regulation, there is a green accounting concept within the company.

The concept of green accounting has been popularized since the 1970s in Europe as a form of increasing environmental awareness. The community demands companies to manage the environment as a result of their company's activities. This green accounting concept is related to the revolution of the single bottom line concept towards the triple bottom line [6]. In the single bottom line, the company applies profit-based business continuity as the main driving force of the business. In the development of environmental management, the triple bottom line has begun to be implemented. The triple bottom line requires companies to focus on profit, people and planet in running their business.

Apart from companies, educational institutions also play an important role in environmental management. Higher education is a scientific reference centre, a source of developing ideas, and sustainable innovation. Universities can instill environmental awareness in society explicitly in everyday life [7]. Green accounting is not only important to be implemented by companies, but also universities. The concept of green accounting in college refers to the social responsibility of higher education which is also known as University Social Responsibility (USR). Green accounting based on higher education social responsibility is expected to be able to create a consensus towards the concept of sustainability.

## **2 Discussion**

### **2.1 Green Accounting**

Human awareness of resources that will run out if they continue to be exploited is the trigger for the emergence of the idea of green accounting. This idea began to emerge in the 1970s to be precise in Norway by creating an accounting method that was able to accommodate the use of natural resources such as forests, fisheries, energy and land. This concept began to develop in the 1980s with accounts for air pollution [8]. The modernization of the company causes the concept of green accounting to evolve. Green accounting then focuses on accounting

processes related to the impact of business processes on the environment. This new concept answers the increase in stakeholder awareness of environmental issues that occur. The purpose of green accounting based on the Environmental Accounting Guidelines is to achieve sustainable development, maintain harmonious relations with the community, and support effective and efficient environmental conservation activities [9].

Green accounting is an environmental accounting system that allows the measurement and disclosure of environmental costs borne by companies. Environmental costs are environmental impacts that arise as a result of the company's business processes and can be measured in units of money. Business processes are inseparable from the use of energy and resources, therefore it is important to assess and present environmental impacts in environmental reports. Some of the urgency of green accounting increasingly needs to be implemented by companies, among others [10], first, showing sensitivity and concern for the environment in the midst of the energy crisis and global warming. Second, encourage companies to innovate in technology and environmentally friendly fuels. Third, increasing stakeholder trust in the company. The Alliance for Environmental Innovations, concluded that companies have positive stock returns along with the company's environmental performance.

The use of green accounting in cost issues, investment analysis and strategic management decisions has increased. Currently, many companies are facing environmental problems and are looking for solutions to report and disclose information to the general public and use the information for environmental development and preservation. As a result, the use of green accounting is an attempt to protect the environment.

## **2.2 University Social Responsibility**

Green accounting is not only important to be implemented in the corporate sphere, but also in universities as a form of responsibility to society. The concept of higher education social responsibility is referred to as University Social Responsibility (USR). USR means an ethical policy as a form of university responsibility for the resulting impact, through collaboration with the community to support sustainable human resource development [11]. The importance of this concept is also included in the International Association of University Policy Statements, along with other challenges facing higher education such as academic freedom and university autonomy, as well as the establishment of international organisations in this area, such as the University Social Responsibility Alliance founded in San Francisco in 2008 [12].

USR cannot be separated from the university's strategic and operational plans through the interaction of the university's internal and external stakeholders. This integration aims to develop and establish harmonious relations with local and global communities to continue social, ecological, environmental, engineering and economic development. The USR concept put forward by [13] includes curriculum, politics, expansion of teaching, sustainable development, and training. The university is an ideal place for social and development levels [14], USR is one of the efforts in realising the *Tridharma* of Higher Education namely "Education and Teaching, Research and Development, and Community Service". USR can also be used as an aspect of higher education's competitive advantage. Accounting standards in Indonesia do not require universities to report university social responsibility.

One important part of USR is the environment. Universities' real action to contribute to environmental management needs to be developed. Support from various elements of tertiary institutions in responding to global environmental issues is the main key to the successful implementation of USR in environmental aspects. Green accounting is an idea that can be developed and implemented by universities in responding to global environmental issues. Education and teaching in tertiary institutions become a vehicle for the realisation of human resources who have innovative thinking and high awareness of the environment.

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

The green accounting concept implemented by the company is related to the disclosure of environmental impacts due to the company's business processes. In tertiary institutions, the concept of green accounting leads to higher education efforts in using energy effectively and efficiently. Universities as educational institutions operationally do not exploit natural resources directly. The majority of universities in Indonesia have implemented environmental and sanitation management programs based on reduce, reuse and recycle [15]. This program is realized through environmentally friendly waste management, shifting the use of pollution-free energy, creating green open spaces, and sustainable development.

The first step that universities can take to implement green accounting is through environmental awareness. [16] suggests that awareness is in awakening the soul towards something, in this case the environment. Environmental awareness is basically grown in every individual. This awareness can be encouraged by written slogans to maintain cleanliness, ban smoking, and prohibit the use of loud noises in motorized vehicles. Awareness of the environment can be reflected through the attitudes and actions of the academic community in tertiary institutions. Understanding of the concept of green accounting in tertiary institutions needs to be carried out through socialization agendas, campaigns, and organisational activities in tertiary institutions [17]. Environmental awareness behaviour can be started with small things such as being wise in using electronic equipment, reducing the use of plastic in campus activities, separating waste disposal, and making policies related to environmental management.

The second step is environmental engagement. One of the environmental-related engagement programs is the *Green Campus* or *Eco-campus*. *Eco-campus* is a reflection of the involvement of the entire academic community on campus to always pay attention to health and environmental aspects. Universities can also establish task forces such as environmental volunteers to manage and ensure the achievement of environmental engagement programs in tertiary institutions [18]. Environmental involvement can also be carried out by collaborating with external parties and the community in welcoming sustainable development. The end of this environmental involvement is creative and innovative human resources in creating environmentally friendly technologies and renewable natural resources. Measurement of environmental costs in tertiary institutions is also an aspect of environmental involvement, namely by measuring the environmental impact caused by university activities such as costs for waste management, environmental research and development, and costs used to use environmentally friendly energy such as solar electricity [19].

The third step is environmental reporting which presents the performance of implementing environmental accounting in tertiary institutions. The objectives of environmental reporting include assisting the decision-making process and transparency of information relevant to tertiary institutions regarding the environmental accounting programs that have been implemented. Accounting science emphasizes that information reporting is not only centered on material, but also qualitative aspects regarding environmental impacts. Furthermore, according to [20] reporting is important as a decision-making tool and disclosure of relevant information about tertiary institutions. Environmental performance reporting is voluntary by universities. There are no official provisions regarding components in environmental reporting by university reports. Therefore, transparency of university environmental performance needs to be published as a form of USR to the public.

The last step to ascertain whether the performance of the environmental preservation program that has been carried out is running effectively and efficiently, an environmental performance audit or Environmental Auditing is required. Evaluation of higher education programs and environmental costs is carried out to measure the extent to which green accounting has been implemented. This environmental audit provides benefits, including identifying environmental risks, avoiding financial losses due to environmental impacts, and increasing public trust in this matter to universities [19]. An environmental audit can be carried out if the university publishes an environmental report. Basically this environmental audit is carried out to support environmental preservation. Monitoring and evaluation must also continue to be carried out so that USR can be realised effectively and efficiently in the higher education environment.

In technological progress and industrialization which is in the spotlight in the world caused by global climate change. With progress that has an effect on the environment, it has an impact on social inequalities on the environment. According to [21] the influence that occurs regarding the context of social responsibility and sustainability, especially for young people today, has a broad impact on community organisations. Based on this progress, there are challenges that have arisen in facing the reform process in recent times which have had an impact on education. The influence of university and organisational identity is enhanced for market power as an important factor facing new challenges [12]. Higher education as one of the community organisations related to the academic context in social responsibility related to new models of academic administration or management . Theoretically, [22] said that this is still uncertain because the theory has not been explored continuously regarding the relationship between USR and universities.

University social responsibility or called University Social Responsibility (USR) is a form of Corporate Social Responsibility (CSR) implemented by the University. It can be defined that USR can be assessed by four (4) aspects that are used on an organisation's ability to provide benefits including: Awareness of social issues, sources of information on social issues, required training, and organisational cooperation [13]. These aspects can distinguish universities with their abilities using the USR analysis method [23]. The definition of USR is also explained [14] as an ethical policy that influences the quality of performance in tertiary institutions consisting of students, managers, teachers, and the entire workforce at the University. The existence of USR can promote interdisciplinary work between educators, scientists, politicians, students, and stakeholders in terms of improving education, training, and morale.

Some aspects regulated in the USR instrument [24] are as follows:

First, Good university governance. Higher education is able to consistently comply with the organization's mission, actualize the code of ethics and establish an independent body tasked with introducing and supervising the achievement of goals to comply with global labor, social, and environmental standards and applicable national laws [25]. Have a commitment to create a healthy work climate, support gender equality, and compile transparent and reliable reporting related to the programs implemented [26]. Dialogue is part of accountability for stakeholders. This views the college as an ideal location where conflicts of interest and risks for many parties involved or not involved with the college that lead to the power to influence performance. The university must respond well to its stakeholders, establish transparent, democratic and harmonious relationships with them and reliably and honestly report on the results of joint decisions [26]. Of course by continuing to listen to the aspirations of internal stakeholders (students, lecturers, researchers and educators) and external stakeholders (alumni, local communities, the state, entrepreneurs, non-governmental organizations [NGOs] and other universities). A socially responsible regulatory process through this dialogue reduces the risk of failure within the organization.

Second, Independently recognize environmental and social impacts. USR's management philosophy is that universities must take into account the possible impact of their strategies and actions on individuals, society and the environment. Self-diagnosis is important for universities to determine prevention and mitigation measures due to the impact of activities on the internal and external environment on society and the environment [25]. Self-diagnosis that is not carried out carefully and responsibly leads to failures in the process of implementing mature habits and encourages improvement. USR thus becomes a management policy that requires universities to self-evaluate and responsibly bear the risk of their negative impacts [27]. Self-diagnosis, democratic and transparent, is also important as a way to practice good governance and listen, dialogue, and provide accountability to community stakeholders.

Third, Integration of local social and environmental for sustainable development. In realizing adherence to the mission and values of the university, the university must be proactive in two areas: first, involvement in solving social problems within the university; and, second, social integration and network building to overcome social problems together [25]. The partnership strategy for USR not only in the university itself, but also in the region where it operates on an ongoing basis establishes external participation by the university. This stimulates better forms of education, more capable campus management, more advanced scientific innovation and the creation of knowledge more relevant to global developments. The constitution of the alliance for local development is not only a momentary but sustainable philanthropic movement. USR rules out the deep-rooted arrogance that universities are major knowledge centers. USR helps universities to form networks with other stakeholders (local authorities, NGOs, businesses, local communities, central government, national and international organizations, universities, and so on) to achieve higher social transformation goals. USR thus helps reduce the risk of egocentrism in organizations [28]

### 3 Conclusion

University Social Responsibility based Green accounting is important to be implemented by universities as a form of responsibility towards the environment and society. Concrete steps taken began with raising environmental awareness by the entire academic community, followed by environmental involvement. Environmental reporting is a form of university transparency on environmental performance. Finally, the environmental audit aims to evaluate the sustainability of the environmental management program. Green accounting is not focused on measuring environmental costs, but the real contribution of the academic community in supporting efforts to preserve the environment in the midst of climate change due to global warming.

There are opportunities for academics and practitioners to develop regulations and concepts related to USR-based green accounting. The dynamic development of science and technology, followed by the development of the young generation's thinking is a challenge for universities to be able to create a generation that is responsible for the environment and supports sustainable development.

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