ISSN No:-2456-2165

Environmental Accounting and Sustainable Development: A Systematic Literature

Gayatri Perwitasari*
Faculty of Economics and Business
Brawijaya University, Indonesia

Erwin Saraswati
Faculty of Economics and Business
Brawijaya University, Indonesia

Yeney Widya Prihatiningtias
Faculty of Economics and Business
Brawijaya University, Indonesia

Abstract:- This study aims to analyze environmental accounting contributes for sustainable development. The research method used in this study is systematic literature study method. Data collection is conducted by collecting articles from accounting journals in 5 electronic databases (Elsevier, Emerald, Springer, Scopus, and Google Scholar) in 2010 – March 2020. Based on results from the systematic review, 10 articles were obtained for analysis and found that implementation of environmental accounting contributes to the measurement of environmental costs, energy costs, energy use, resource use and the impact of the exploitation, minimizing water use, minimizing waste generated in a production process, minimizing carbon emission, and maximizing 3R (reuse, reduce, and recycle) activities. By implementing environmental accounting, companies in varoius industrial sector will recognize negative impacts which caused by production activities, so that sustainable development can be achieved.

Keywords:- *Environmental Accounting, Sustainable Development, and Systematic Literature Review.*

I. INTRODUCTION

The concept of sustainable development links environmental concerns and human needs by adjusting economic growth with social and environmental concerns (Ramcilovic-Suominen & Pulzl, 2018). This concept affects the economic development policies of world governments and affects the supply and demand for economic and business activities (Castaneda, Martinez, Marte, & Roxas, 2015). On the supply side, businesses and industries face pressure to adopt a triple bottom line approach and reduce negative impacts on the environment (Castaneda et al., 2015). Based on the demand side, consumers will be more concerned about the environment in using goods and services (Castaneda et al., 2015).

Thornton (2013) states that the World Commission has presented the definition of sustainable development on Environment and Development as a development process with the principle of "meeting current needs without sacrificing future generations' ability to meet their own needs." When a company's decision involves aspects of sustainability that must be made, the decision must be based on information related to sustainability (Dong & Hauschild, 2017). This is a new challenge for companies to provide rational, coherent, and transparent decisions towards sustainable resource use and environmentally friendly production patterns (Dong et al., 2017).

In realizing sustainable development, companies/business people can apply environmental accounting. Tu & Huang (2015) revealed that environmental accounting is a way to measure, record, and disclose the impact of a company's environmental activities in financial statements. Environmental accounting can provide more information about the extent to which business actors make a positive contribution to the quality of human life and the environment (Belkaoui, 2000). Also, environmental accounting's objective is to encourage business actors to implement environmental activities more effectively and efficiently to achieve sustainable development.

Environmental accounting implementation must be done because human activities do not care about the environment and cause environmental damage. In Indonesia, to be precise in Papua, severe environmental damage occurred Papua caused by PT. Freeport. PT. Freeport disposes of its waste residue, categorized as B3 waste (Hazardous Toxic Material), through the Ajkwa River (Senopati, 2018). This waste has destroyed several sensitive aquatic species in the Ajkwa River. Human activities that damage the environment do not only occur in Indonesia. In China, Linfen city is the city with the worst air pollution in the world at the international level. This city is the center of the coal industry in China. Emissions from vehicles and the coal industry in the city of Linfen choke its residents in coal dust (Aulian, 2019).

The rise of environmental damage cases has led researchers to research environmental accounting and sustainable development. Yermolenko, Gafurova, Krasnova, & Krasnova (2020) reveal that environmental accounting is the most important tool in implementing sustainable development. Environmental accounting provides an objective picture of natural resources' state and dynamics, shows economic and environmental relationships, measures environmental costs and costs of environmental damage (Yermolenko et al., 2020).

Caiado, Dias, Mattos, Quelhas, & Filho (2017) researched sustainable development through eco-efficiency. Caiado et al. (2017) found that increasing eco-efficiency is not a guarantee for change through sustainable development. Eco-efficiency indicators will be more useful if businesses promote global sustainable development, such as realizing sustainable development in a sustainable world.

Based on the description above, researchers are interested in researching the relationship between environmental accounting and sustainable development. The research to be carried out refers to the research of Caiado et al. (2017). Research by Caiado et al. (2017) discusses sustainable development from an eco-efficiency perspective through a systematic literature study. This research distinguishes this research from previous research because this research discusses sustainable development from an environmental accounting perspective. Environmental accounting is a novelty of this study because environmental accounting has a broad scope, where one of the environmental accounting areas is eco-efficiency. So, what is discussed in this study is from an eco-efficiency perspective and a broader discussion, namely the implementation of environmental accounting globally in realizing sustainable development.

This research was conducted using a systematic literature study method in reviewing theories regarding the application of environmental accounting to increase sustainable development. The systematic literature study method can provide knowledge about accounting concepts that can promote sustainable development. Therefore, this study aims to determine the contribution of environmental accounting in realizing sustainable development.

II. METHOD

A systematic literature study is a method of reviewing existing theories through a series of stages to ensure that good accuracy and transparency are brought into the literature review process (Garza-Reyes, 2015). Systematic literature studies differ from general literature studies in terms of the process of taking the literature to be reviewed in the study (Reim, Parida, & Ortqvist, 2015). This process will lead to collective insights based on a theoretical synthesis from existing studies (Reim et al., 2015). A systematic literature review's main objective is to identify the key scientific contributions to the field or question whose results will be discussed and presented descriptively (Beceikh, Landry, & Amara, 2006).

This study's data source is secondary data with the unit of analysis in the form of research results from articles on environmental accounting and sustainable development themes. The data is obtained from various journals published in electronic databases. Electronic databases used are Elsevier (sciencedirect.com), Emerald (emeraldinsight.com), Springer (springerlink.com), Scopus (scopus.com), and Google Scholar.

This study's population is all research on the relationship between environmental accounting and sustainable development in the form of electronic articles (e-articles) found in 5 electronic databases with a set of search keywords. Based on a predetermined population, the sample determination in this study is:

1. Articles in accounting journals
2. Articles that discuss the relationship between environmental accounting and sustainable development
3. The time scale used is from 2010 to March 2020
4. Articles are written in English
5. Available in the electronic database as full text

Data collection in this study was carried out using the keyword (keywords) environmental accounting and sustainable development and green accounting and sustainable development. Based on this search process, articles that do not refer to the search conditions will be eliminated and not included in the data analysis stage.

Jesson, Matheson, & Lacey (2011) revealed several keys stages to perform data analysis in a systematic literature review. These stages are:

1. Mapping the research scope
2. Comprehensive search
3. Assessment of articles

The assessment of this article was carried out concerning Viegas et al. (2016):

a. Eliminate articles based on similar titles
b. Eliminate articles based on abstract
c. Eliminate articles based on discrepancies in journal content with the specified theme

All articles that are eliminated and included in the analysis must be documented so that the principle of transparency can be seen during the data analysis process.

4. Data extraction
5. Synthesize data

A picture of the stages of data analysis is presented in Figure 1 below

ISSN No:-2456-2165

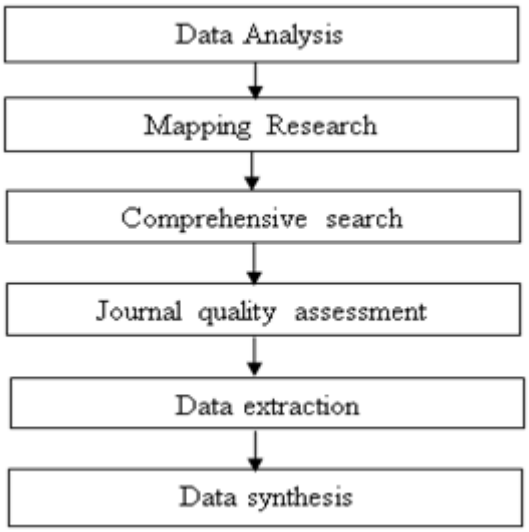

Fig 1:- Data Analysis Phase

III. RESULTS AND DISCUSSION

A. RESULT

After the database filtering process was carried out in order to obtain articles on environmental accounting and sustainable development using the keywords environmental accounting (green accounting) and sustainable development, the following results were obtained:

Table 1. Database Filtering Results

Database	Population
Science Direct	27
Emerald Insight	55
Springer Link	6
Scopus	109
Google Scholar	12
Total	**209**

Based on table 1, it can be seen that the population number shows the number of articles that have the theme of environmental accounting and sustainable development obtained from the database filtering process. The total population in this study amounted to 209 articles, of which 209 articles will be eliminated based on the similarity of titles, abstracts, and suitability of the themes determined by the contents of the articles. The articles obtained from this database filtering process will be selected again based on the specified criteria. Selection criteria in systematic literature studies are useful for obtaining the number of articles that can be analyzed. If the articles do not meet the selection criteria, they are eliminated. The criteria set in this study can be seen in Table 2 below:

Table 2. Selection Criteria in Systematic Literature Studies

Criteria	Inclusion	Exclusion
Time Scale	Used 2010 - March 2020	Before 2010 and after March 2020
Domain	Business, management, and accounting	Other domains besides business, management and accounting
Subdomain	Accounting	Other subdomains other than accounting
Type Publication	'Peer-review' articles from academic journals	Other types of publication (book, encyclopedia, or review article)
Language	English	Other English Language
Availability	Available in electronic database as full text	Not available in electronic database and Not available as full text

Based on the database filtering results, 209 articles were obtained with the keywords environmental accounting (green accounting) and sustainable development. The articles were then selected using predetermined criteria so that the following results were obtained:

Table 3. Article Elimination Results Based on Similarity of Titles

Description	Total
Database Filtering Results	209
Eliminated Articles	123
Number of Potential Articles to be Analyzed	86

Based on the results of eliminating articles with the same title, 86 articles have the potential to be analyzed. A total of 86 articles were then eliminated again based on the abstract. In the abstract for each article, the abstract must mention the keywords environmental accounting / green accounting and sustainable development (sustainability) or discuss environmental accounting's effects in realizing sustainable development. Articles that do not mention the keywords environmental accounting / green accounting and sustainable development (sustainability) or discuss environmental accounting's effects in realizing sustainable development will be eliminated.

Elimination of articles is carried out to facilitate the process of obtaining articles that match the set theme, without having to read the entire content of an article. Abstract in a research article can show the essence of the research. Therefore an abstract from a study that does not discuss environmental accounting and sustainable development, or in the abstract, does not mention the keywords environmental accounting / green accounting and sustainable development (sustainability). Indeed, the article does not discuss environmental accounting and sustainable development. Based on these provisions, the results of the articles to be analyzed can be seen in table 4.

Table 4. Article Elimination Results Based on Abstracts

Description	Total
Potential Articles	86
Eliminated Articles	57
Number of Potential Articles to be Analyzed	29

Based on eliminating articles based on the abstract, 29 articles could potentially be analyzed. A total of 29 articles were eliminated based on the article content's suitability with the set theme. This process is carried out to ensure that the entire article will be analyzed following the set theme. These articles must discuss the effect of environmental accounting in realizing sustainable development. If these articles do not discuss environmental accounting's effect in realizing sustainable development, then the article will be eliminated. Based on these provisions, the results of the articles to be analyzed can be seen in table 5.

Table 5. Article Elimination Results Based on Content Conformity with Themes

Description	Total
Potential Articles	29
Eliminated Articles	19
Number of Articles Taken to the Discussion Process	10

Based on table 5, it can be seen that the number of articles that were brought in the discussion process was 10 articles. The discussion of these 10 articles can be seen in the discussion.

B. DISCUSSION

Stechemesser & Guenther (2012) stated that environmental accounting is divided into 2, namely environmental, financial accounting, and environmental management accounting, based on its stakeholders. Environmental financial accounting discusses environmental costs, profit, and loss of business investments that pay attention to the environment and company obligations to the environment (Stechemesser et al., 2012). Meanwhile, environmental management accounting discusses the development and implementation of an appropriate management control system related to the environment and the disclosure of activities concerning environmental costs in its business strategy (Stechemesser et al., 2012).

Ikhsan (2009) states that environmental management accounting is one of the sub-systems of environmental accounting. Environmental management accounting discusses how the company's business impacts several monetary units (Ikhsan, 2009). Based on these two statements, it can be concluded that environmental management accounting, which is part of environmental accounting, must be included in this study's analysis.

1. Contribution of Environmental Accounting to Sustainable Development

Machete, Hangoro, & Nhamo (2016) reveal that the implementation of environmental accounting can be used in assessing energy use, energy costs, and carbon emissions. According to Machete et al. (2016), an assessment of energy savings using environmental accounting can integrate energy use, energy costs, and carbon emissions. The implementation of environmental accounting will reduce energy costs and carbon emissions because environmental accounting can show which energy characterization can consume the highest and lowest energy consumption in companies' activities (Machete et al., 2016). For example, indoor lighting activities in the hotel sector that use petroleum energy or electrical energy can be replaced by using solar energy because diesel energy use is relatively lower than petroleum energy and electrical energy (Machete et al., 2016).

Replacement of energy characterization that consumes high energy consumption with energy characterization that consumes lower energy consumption will impact energy costs and carbon emissions (Machete et al., 2016). If the quantity of energy required is low, the costs incurred to obtain this energy are also low (Machete et al., 2016). A low energy consumption level will reduce carbon emissions released on this energy (Machete et al., 2016). Environmental accounting practices in energy characterization and selection can also reduce energy waste and improve returns on energy-saving investments in energy quantities, energy costs, and carbon emissions and help realize sustainable development (Machete et al., 2016).

Saymeh et al. (2013) revealed that the implementation of environmental accounting would take the economy on a sustainable path. A sustainable economy is one of seventeen sustainable development goals. Another researcher, Aladwan (2018), states that corporate social responsibility to implement environmental accounting concepts and methods can enhance sustainable development. Like Biobele & Mefor (2012), Biobele et al. (2012) also revealed that environmental accounting has a significant influence in realizing sustainable development.

Franzese, Buonocore, Paoli, & Massa (2015) revealed that environmental accounting is also useful in assessing environmental costs and assessing environmental exploitation's associated impact (Franzese et al., 2015). Like Franzese et al. (2015), Viglia, Nienartowicz, Kunz, & Franzese (2013) also revealed that environmental accounting is used to calculate environmental costs. Besides, Franzese et al. (2015) also state that the implementation of environmental accounting can be used in formulating management

strategies, as well as making policies that are oriented towards optimizing the balance between costs borne and benefits obtained in a sustainability framework that is oriented towards sustainable development, particularly sustainable resource management.

The implementation of environmental accounting in a company will increase production costs and operational costs (Tu et al., 2015) because companies must internalize external costs associated with production activities. Some companies may need external parties to improve the environment to increase the expenses of these companies (Tu et al., 2015). This increase in costs forces companies to maintain profits or minimize costs (Tu et al., 2015). Companies can maintain profits or minimize costs by making changes in environmentally oriented product designs (green design or green design) (Tu et al., 2015). The essence of green design is to use low resources to produce more products, product differentiation, or product efficiency (Tu et al., 2015).

According to Tu et al. (2015), the benefits of this green design can reduce the use of resources to produce more products. Reducing excess resources can be done using energy more effectively and lowering waste expenditure (Tu et al., 2015). Also, technology innovation can be carried out to increase resource productivity and produce more products with lower use of raw materials so that costs incurred in production activities can be minimized (Tu et al., 2015).

The second benefit of green design is that it can prevent pollution (Tu et al., 2015). Pollution prevention can be done by designing environmentally oriented products, changing the final treatment stage of a product to the pollution prevention stage as the final stage in the production process, and the production process and product design that is incompatible with environmental protection must be changed (Tu et al., 2015). This environmentally-oriented change will be able to reduce waste so that pollution can be controlled.

The third benefit is net production (Tu et al., 2015). The purpose of clean production is to produce a product without toxicity and a production process without environmental pollution (Tu et al., 2015). To produce clean production, companies must produce environmentally friendly products so that the products produced do not contain toxins or other hazardous materials (Tu et al., 2015). Companies must have their waste treatment plants so that the waste generated from production activities is not harmful to the surrounding environment (Tu et al., 2015).

The fourth benefit is improving environmental performance (Tu et al., 2015). Improving environmental performance can be done by improving processing designs that do not damage the environment, demonstrating environmental friendliness by the company, increasing its competitive advantage in terms of company concern for the environment, and conducting environmental maintenance regularly (Tu et al., 2015). These efforts can improve environmental performance and protect the environment from various kinds of environmental damage that can be caused by the company.

The last benefit, the fifth, is that input equals output (Tu et al., 2015). The purpose of input is the same as output; that is, no material is left and is wasted during the production process (Tu et al., 2015). This can be done by analyzing and recording production costs using the material flow cost method (Tu et al., 2015). The material flow cost method is used to measure the costs used during the production process (starting from raw material costs, production results to waste / waste disposal costs) (Tu et al., 2015). Measurements using material flow analysis are carried out to help companies make the remaining, and wasted materials tend to zero (Tu et al., 2015).

The implementation of green design will help companies protect and preserve the surrounding environment. Besides, the implementation of this green design can also enhance sustainable development if accompanied by the implementation of environmental accounting (Tu et al., 2015). The implementation of environmental accounting, accompanied by implementing this green design, can increase sustainable economic development (Tu et al., 2015). Sustainable economic development is one of the targets of the Sustainable Development Goals.

2. Contribution of Environmental Management Accounting to Sustainable Development

Environmental management accounting also contributes to the realization of sustainable development. Gunarathne & Lee (2015) stated that implementing environmental management accounting in the hotel sector would make cost savings. These cost savings can be achieved by saving water and energy (Gunarathne et al., 2015).

Energy savings can be done by using solar water heaters (activities carried out using solar energy require lower energy use than using electrical energy), scheduling lighting changes (lighting replacement in question is replacing lamp light with sunlight in the morning day to evening), replacing incandescent/halogen / fluorescent lamps with solid incandescent lamps (the use of solid incandescent lamps requires less energy compared to halogen lamps and fluorescent lamps), and establishing biomass plants for steam production (Gunarathne et al., 2015). Apart from saving energy, the hotel management also conserves water by using treated water for garden irrigation (Gunarathne et al., 2015).

The second energy saving is minimizing liquid waste, solid waste, air pollution, and various other chemical pollutants (Gunarathne et al., 2015). Minimizing solid waste is done by grading waste, recycling waste, reusing waste, reducing waste, and composting plant waste (Gunarathne et al., 2015). Liquid waste management is also carried out and establishing a waste treatment plant to minimize liquid waste (Gunarathne et al., 2015). Minimizing chemical pollution is done by reducing chemicals and not using plastics (Gunarathne et al., 2015).

The third energy saving is maximizing practices to reduce, recycle, and reuse (3R / reduce, recycle, reuse) (Gunarathne et al., 2015). The practice of reducing

(reduction) can be done by reducing the use of plastics or other materials that are difficult to decompose in the company's operational activities (Gunarathne et al., 2015). For example, suppose a company uses packaging made of plastic. In that case, it can be replaced with cardboard, paper, or other materials so that the waste from these materials can be broken down. Recycling (recycling) can be done by recycling waste (Gunarathne et al., 2015). Waste that does not contain hazardous materials can be recycled back into recycled items so that by reducing the volume of waste, the environment will also not be polluted. The practice of reusing (reuse) can be done by reusing materials or tools that can still be used (Gunarathne et al., 2015). An example is the use of office stationery. If the ink in the ballpoint pen runs out, the employee can refill the ink with refill ink instead of buying a new pen.

Various environmental problems such as excessive energy use, toxic and hazardous waste, air pollution, and other chemical pollution can be minimized by implementing environmental management accounting. The implementation of environmental management accounting can realize sustainable development (Gunarathne et al., 2015). This sustainable development can be realized in various fields such as energy, water, raw materials, and waste (Gunarathne et al., 2015).

Behind the advantages of implementing environmental management accounting, it turns out that environmental management accounting also has weaknesses in terms of measuring energy use/consumption. Christensen & Himme (2016) revealed that this weakness in measuring energy consumption could be overcome using multivariate regression analysis. Multivariate regression analysis can show each machine's energy use throughout the company in the same period. Companies know which machines must be operated first so that energy savings can be applied (Christensen et al., 2016). This multivariate regression analysis will improve the environmental management accounting system that cannot be used to measure energy use appropriately. Measuring energy consumption using this multivariate regression analysis can optimize production and cost allocation that considers energy-saving aspects (Christensen et al., 2016).

The implementation of environmental management accounting, especially in terms of measuring energy efficiency using multivariate regression analysis, can be one of the efforts that a company can make, especially energy-intensive companies, to achieve the desired sustainable development (Christensen et al., 2016). Besides, the implementation of environmental accounting can also support the company's operational activities to improve the company's economy, environmental performance, and sustainable business (Christensen et al., 2016). This energy efficiency measurement is a promising effort in reducing carbon emissions (Christensen et al., 2016). If carbon emissions are reduced, the global climate temperature will decrease, the sea level will decrease, extreme weather can be controlled, and reduce other negative impacts/losses in life to realize sustainable development (Christensen et al., 2016).

The realization of sustainable development is also influenced by the awareness and knowledge of social responsibility and sustainable development by employees in the company (Aladwan, 2018). Without concern and support for the environment and sustainable development from employees, sustainable development will also not be realized. Gunarathne et al. (2015) said that employees need to be given training related to the importance of preserving the environment, saving energy use, and implementing environmental accounting regularly in order to realize sustainable development.

Thabit & Ibraheem (2019) reveal some of the benefits of implementing environmental management accounting for increasing sustainable development. These benefits, namely the implementation of environmental management accounting, will provide data on the environmental impact of hazardous waste and carbon emissions. Companies that care about the environment will implement environmental management accounting so that companies have various data about the impact of company activities on the environment, how to preserve the environment, how to treat waste, or how to reduce carbon emissions that arise due to energy use. This data can help stakeholders, shareholders, or external parties in making decisions.

The benefits of implementing the second environmental management accounting, namely the implementation of environmental management accounting, will contribute to reducing the use of resources/energy in the production process or company activities (Thabit et al., 2019). Implementing environmental management accounting will provide information regarding the use of resources or energy used in the production process. Based on this information, the company can analyze which resources cannot be renewed, resulting in environmental damage. Besides, the company can also analyze which energy use requires large amounts of energy in a production cycle.

The third benefit is that environmental management accounting will contribute to improving the decision-making process by providing information about environmental performance (Thabit et al., 2019). Environmental accounting implementation that provides information about the environment will also show how the company's environmental performance. Environmental performance in a company makes company management, stakeholders, and other interested parties realize that environmental accounting and preserving the environment are essential things to maintain environmental sustainability.

The last benefit is that the application of environmental management accounting will contribute to evaluating and implementing environmental programs to ensure long-term sustainable development (Thabit et al., 2019). The provision of environmental information and environmental performance in environmental accounting implementation makes companies more aware of the importance of protecting the environment from various kinds of adverse impacts on production activities carried out by the company. This will inspire company management to implement environmental

protection programs in the long term to realize long-term sustainable development.

Sustainable development will not be realized if all company parties are not directly involved in environmental accounting practices. The concept of sustainable development has a considerable role in the decision-making process (Aladwan, 2018). When the decision-makers decide, the decision-makers should rethink whether there are negative impacts and the relationship between the decisions that will be taken on the environment and sustainable development. The concept of sustainable development has high complexity because this concept is crucial for current and future generations (Aladwan, 2018). This concept of sustainable development requires the right laws, accounting methods, and tools such as environmental accounting and the right indicators used in balancing the environment and sustainable development (Aladwan, 2018).

IV. CONCLUSION

Based on the results of a systematic review, environmental accounting contributes to the improvement of sustainable development. The implementation of environmental accounting contributes to measuring environmental costs, measuring energy costs, measuring energy use, measuring resource use and the impact of its exploitation, minimizing water use, minimizing waste generated in a production process, minimizing carbon emissions, and maximizing 3R activities (reuse, reduce, and recycle). This contribution from environmental accounting can reduce the negative impact of various business activities in various sectors. Reducing these negative impacts makes the environment clean and preserved so that sustainable development can be realized.

This research certainly has limitations. This study's limitation is the lack of the number of articles or journals obtained from database searches. This is because many studies do not discuss environmental accounting and sustainable development. These studies do discuss environmental accounting, but they do not link environmental accounting and sustainable development. For example, the research discusses laws and regulations related to environmental accounting and participation in environmental-based decision-making. Besides, some discuss the policy concept of environmental accounting, how environmental accounting practices, and how to increase environmental accounting potential through education, and many other studies that discuss environmental accounting but do not relate it to sustainable development. Because of this, the number of articles analyzed in this study was only a small number.

In terms of suggestions for future researchers, further researchers may use other accounting methods besides environmental accounting about sustainable development. The use of other accounting methods aims to determine the contribution of these accounting methods for sustainable development. The accounting method in question is carbon accounting, accounting for biodiversity, water accounting, or climate change. Using other accounting methods besides environmental accounting will expand the research area so that later it can be seen how the contribution of these accounting methods to sustainable development.

ACKNOWLEDGMENT

The author would like to thank the supervisor who has contributed in writing this paper.

REFERENCES

[1]. Aladwan, M. (2018). Undertaking of environmental accounting responsibility to achieve sustainable development: Evidence from Jordanian chemical and mining companies. International Journal of Managerial and Financial Accounting, 10(1), 48-64. doi:10.1504/ijmfa.2018.10012242.
[2]. Aulian. (2019, April 3). My Blog. Dipetik Mei 25, 2019, dari aulianfblog.wordpress.com: https://aulianfblog.wordpress.com
[3]. Beceikh, N., Landry, R., & Amara, N. (2006). Lessons from innovation empirical studies in the manufacturing sector: A systematic review of the literature from 1993–2003. Technovation, 26 (5-6), 644-664. doi:10.1016/j.technovation.2005.06.016.
[4]. Belkaoui. (2000). Accounting theory (4th ed.). USA: Thomson.
[5]. Biobele, B. S., & Mefor, I. P. (2012). The impact of environmental accounting and reporting on sustainable development in Nigeria. Research Journal of Finance and Accounting, 3 (7), 55-63.
[6]. Caiado, R. G., Dias, R. d., Mattos, L. V., Quelhas, O. L., & Filho, W. L. (2017). Towards sustainable development through the perspective of eco-efficiency - A systematic literature review. Journal of Cleaner Production, 165, 890-904. doi:10.1016/j.jclepro.2017.07.166.
[7]. Castaneda, M. G., Martinez, C. P., Marte, R., & Roxas, B. (2015). Explaining the environmentally-sustainable consumer behavior: A social capital perspective. Social Responsibility Journal, 11 (4), 658-676. doi:10.1108/srj-02-2014-0019.
[8]. Christensen, B., & Himme, A. (2016). Improving environmental management accounting: How to use statistics to better determine energy consumption. Journal of Management Control, 28 (2), 227-243. doi:10.1007/s00187-016-0239-0.
[9]. Dong, Y., & Hauschild, M. Z. (2017). Indicators for environmental sustainability. Procedia CIRP, 61, 697-702. doi:10.1016/j.procir.2016.11.173.
[10]. Franzese, P. P., Buonocore, E., Paoli, C., & Massa, F. (2015). Environmental accounting in marine protected areas: The EAMPA project. Journal of Environmental Accounting and Management, 3 (4), 324-332. doi:10.5890/jeam.2015.11.002.
[11]. Garza-Reyes, J. A. (2015). Lean and green – a systematic review of the state of the art literature. Journal of Cleaner Production, 102, 18-29. doi:10.1016/j.jclepro.2015.04.064.

[12]. Gunarathne, N., & Lee, K.-H. (2015). Environmental Management Accounting (EMA) for environmental management and organizational change. Journal of Accounting & Organizational Change, 11 (3), 362-383. doi:10.1108/jaoc-10-2013-0078.
[13]. Hussain, M. D., Halim, M. S., & Bhuiyan, A. B. (2016). Environmental accounting and sustainable development: An empirical review. International Journal of Business and Technopreneurship , 6 (2), 335-350.
[14]. Ikhsan, A. (2009). Akuntansi Manajemen Lingkungan & Pengungkapannya (Edisi Pertama ed.). Yogyakarta: Graha Ilmu.
[15]. Jesson, J., Matheson, L., & Lacey, F. M. (2011). Doing your literature review. SAGE Publications Ltd.
[16]. Machete, F., Hangoro, C., & Nhamo, G. (2016). The use of environmental accounting to determine energy saving in mpumalanga hotels, south africa. Journal of Environmental Accounting and Management, 4 (4), 413-422. doi:10.5890/jeam.2016.12.005.
[17]. Ramcilovic-Suominen, S., & Pulzl, H. (2018). Sustainable development – A 'selling point' of the emerging EU bioeconomy policy framework? Journal of Cleaner Production, 172, 4170-4180. doi:10.1016/j.jclepro.2016.12.157.
[18]. Reim, W., Parida, V., & Ortqvist, D. (2015). Product–Service Systems (PSS) business models and tactics – a systematic literature review. Journal of Cleaner Production, 97, 61-75. doi:10.1016/j.jclepro.2014.07.003.
[19]. Saymeh, A. A., & Shoubaki, Y. A. (2013). The commitment of the Jordanian industrial companies in applying environmental accounting. European Journal of Business and Management, 5 (16), 178-192.
[20]. Senopati, I. (2018, Mei 24). Senayan Post. Dipetik Juni 2, 2018, dari senayanpost.com: https://senayanpost.com
[21]. Stechemesser, K., & Guenther, E. (2012). Carbon accounting: A systematic literature review. Journal of Cleaner Production, 36, 17-38. doi:10.1016/j.jclepro.2012.02.021.
[22]. Thabit, T. H., & Ibraheem, L. K. (2019). Implementation of environmental management accounting for enhancing the sustainable development in Iraqi oil refining companies.
[23]. Thornton, D. B. (2013). Green accounting and green eyeshades twenty years later. Critical Perspective on Accounting, 24 (6), 438-442. doi:10.1016/j.cpa.2013.02.004.
[24]. Tu, J.-C., & Huang, H.-S. (2015). Analysis on the relationship between green accounting and green design for enterprises. Sustainability, 7 (5), 6264-6277. doi:10.3390/su7056264.
[25]. Viegas, C. V., Bond, A. J., Vaz, C. R., Borchardt, M., Pereira, G. M., Selig, P. M., et al. (2016). Critical attributes of sustainability in higher education: A categorisation from literature review. Journal of Cleaner Production, 126, 260-276. doi:10.1016/j.jclepro.2016.02.106.
[26]. Viglia, S., Nienartowicz, A., Kunz, M., & Franzese, P. P. (2013). Integrating environmental accounting, life cycle and ecosystem services assessment. Journal of Environmental Accounting and Management, 1 (4), 307-319. doi: 10.5890/jeam.2013.011.001.
[27]. Yermolenko, V., Gafurova, O., Krasnova, M., & Krasnova, Y. (2020). Legal principles of environmental accounting as means of identifying sustainable development indicators in Ukraine. European Journal of Sustainable Development, 9 (2), 263-279. doi: 10.14207/ejsd.2020.v9n2p263.