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Sustainability in Palm Waste Management: Land Application Systems in a Quadruple Bottom Line Perspective

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ABSTRACT

The study focuses on the description of the implementation of the land application system on the sustainability of palm oil liquid waste management. The application of qualitative descriptive methods is the method used to analyze data obtained from interviews, observations and documentation. The results of the study indicate that the Land Application System is the Company's Driving Wheel in Carrying Out Sustainability in Palm Oil Liquid Waste Processing, the Quadruple Bottom Line Perspective coherently explains Processing activities starting from the Economic Perspective in Efficient Budget, the Environmental Perspective explains the Company's Concern in Minimizing environmental effects, the Social Perspective supports the empowerment of the surrounding Community, and the Governance Perspective ensures the implementation of operational standards based on government policies and encourages companies to move towards sustainability.

Introduction

Palm oil waste management is classified as a strategic issue that is receiving increasing attention in the context of sustainability industry palm oil, especially in Indonesia, which is one of the world's largest producers of palm oil production (Lau et al., 2024; Purwanto, 2020). Palm oil waste management needs to be carried out to prevent environmental problems that result in fatal errors to the environment because it has the potential to damage the environment starting from environmental pollution, water pollution to greenhouse gas emission problems that result in the thinning of the earth's atmosphere (Nuswantoro, 2021; Paranoan et al., 2025; Zahrani, 2024). This phenomenon triggers an urgent need for companies to develop environmentally friendly waste management but still provides value to the company's operational performance. The land application system is a form of description that deals with waste management from within the palm oil production process, through the existence of a system that manages the waste still requires a form of reporting that drives the company's operations. Therefore, environmental accounting is then presented in presenting reports on the movement of company activities in issuing

resources for environmental maintenance for the company's operations that continue to run without stopping (BAKRY et al., 2024; Jurana et al., 2022).

Management of liquid palm oil waste through a land application system from an environmental accounting perspective is shown in the following display.holisticthrough the Quadruple Bottom Line approach which emphasizes not only the company's ability to manage the company to generate financial or economic profits, but also forces the company to be able to present reports on environmental, social and corporate governance aspects to create increasingly visible corporate sustainability to achieve progress According to Tajbakhsh et al. (2024), company performance can be assessed if the company presents complex reporting in managing the company for its sustainability which is not just a written report in the financial report but in real practice that can be felt by the surrounding community, and also the environment around the company's operations. This activity then displays a new form in showing the importance of waste management that is not only focused on the economic side but also in a broader perspective including the environment, social and corporate governance (Bratt, 2022; Nworie & Orji-Okafor, 2024).

System integration in palm oil waste management is an important key, but there has not been much research that has revealed the benefits of a palm oil waste management system presented through the Quadruple Bottom Line perspective. Many previous studies have revealed the importance of developing companies through responsibility.socialthat the company provides to its environment (Almasyhari et al., 2024; Ramadhani & Ekaviana, 2020; Sudarminto & Harto, 2023), which indicates limitations on the elements presented, namely the Triangle Bottom Line approach which contains the Planet which talks about the environment in which the company operates, then People which refers to activitiessocialcompany in running its operations, and profit which is intended for the company's acquisition in maintaining its image and financial income for the company's sustainability. However, this study presents a new approach that presents the 4P issue which re-explains the company's Purpose so that it emphasizes the economic, environmental elements social and corporate governance to review in depth the company's activities through the implementation of the Land Application System in managing palm oil waste.

Several previous studies have not directly presented the results of company activities in applying a palm oil waste management system such as a land application system, previous studies such as those conducted by (Wedayanti et al., 2023), (Lau et al., 2024), (Siagian et al., 2024), (Effendi, 2021), (Suyudi, 2012), And (Ramadhani & Ekaviana, 2020) tends to emphasize the use of accountability social, managerial reporting until finally responding to the problems of environmental issues that are rampant. The land application system is a novelty and research gap that is developed in research through the Quadruple Bottom Line perspective to present a descriptive picture of the integration of both in supporting the sustainability of companies managing their palm oil waste.

This study focuses on the study of the depiction of the implementation of the land application system in the management of palm oil waste based on the Quadruple Bottom Line perspective that supports the operational sustainability of palm oil companies. The study is expected to contribute to the development of company policies and increase the value of palm oil companies in integrating various aspects that support the sustainability of their companies and not only focusing on activities that repetitive without considering the urgency of the strategic issues surrounding the company's environment.

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Method

Efforts to reveal palm oil waste management in supporting the urgency of green accounting as a parameter for corporate sustainability were carried out in this study through a qualitative descriptive approach that generally highlights the company's actions in following up on waste liquid on palm oil production that can have an impactnegativeon the company's operational environment. The qualitative descriptive approach is considered relevant because it contains techniques that generally describe the phenomena raised in the study through simple depictions, making it easier to understand the research context. Thus, the context of waste management palm oil liquid in context land application system from a Quadruple Bottom Line perspective.

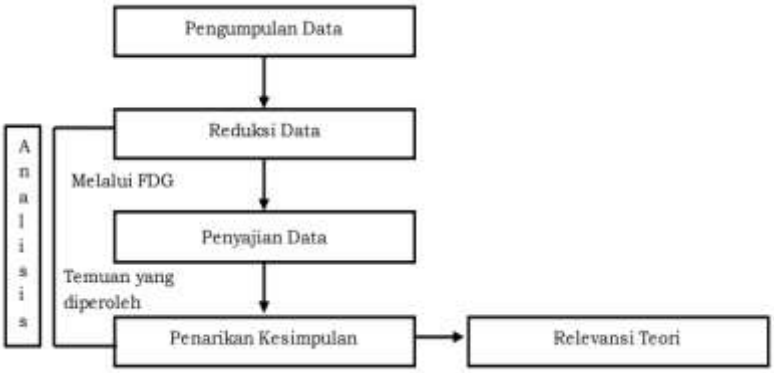

Figure 1. Research Analysis Diagram
Source:Tempomona et al.(2023)

Table 1 shows informants in the study with backgrounds directly related to the operational activities of a palm oil company located in North Morowali, Central Sulawesi. Thus, the information obtained by researchers will be very relevant in the process of processing research data. Experience and work periods that are sufficient to support providing information to researchers are the main focus. Researchers respect the privacy of informants. Informants are presented asanonymous. Then, Figure 1 underlies the research model conducted based on the Tempomona (2023) framework that menshow the analysis stage in qualitative descriptive research. The researcher's data collection through interview information, observation and documentation is then carried out with data reduction which shows harmony in the informant's expression and data presentation which is then compared with research or the relevance of the theory to draw research conclusions in revealing the essencel and application systemin waste management liquid palm oil for sustainability in company operations.

Table 1. Research Informants

No	Informant	Position
1	ND Finance	Head of Finance
2	RN Factory Head	Factory Head
3	CS Factory	Waste Management Employee

Results and Discussion

Economic Perspective "Minimize Budget Usage in Liquid Waste Management"

The acquisition of income, namely profit from the company's operations, is the main goal that is the focus of companies with a profit orientation. The palm oil production company that is the object of this study is included in this category, indicating that the profits obtained are an interest that needs to be prioritized. In the Quadruple Bottom Line perspective, profit refers to the company's profits that support all operational activities of the company in material and non-material terms, indicating that operational activities can continue to run without any obstacles (Suyudi, 2012). One of profit which is obtained in the operation of palm oil companies, namely the management of palm oil liquid waste through the use of land application systems.

> *"In the production process, there are two types of waste produced, the first is waste from the pulp or known as tangkos and the second is liquid waste or commonly abbreviated as lcks (liquid palm oil waste)."*RN Factory Head

Furthermore, RN explained the process of managing liquid waste through a land application system to prioritize profits for the company.

> *"The income obtained from waste management is not in the form of monetary value, but in the form of profit for plants.PWe manage liquid waste with our principle of land application, so we apply the waste to the garden so that later the oil palm roots will absorb the wastewater."* RN Factory Head

The benefits obtained in the management of palm oil liquid waste through land applications explain that palm oil companies focus on the resources they have to then experience a turnover that will improve the quality of the raw materials produced. This practice emphasizes on minimized financial activities to obtain quality through the use of adequate resources so that there is no occurrence of excess financing that causes losses to palm oil companies. ND Finance's statement supports the existence of cost-minimization practices which explain that the management of palm oil liquid waste does not require expensive costs, thus helping the company's financial activities to prioritize other activities that require greater costs.

> *"In general, there are no more costs, because waste management has been made or planned from the beginning. So actually what exists is for liquid waste, it is managed through a pond. For the costs later when the pond is saturated or full, then we do the dredgingand there is a cost.*ND Finance

Further, the Financial ND states that the identification of costs incurred in liquid waste management is based on activities carried out and has been organized based on company policies based on government regulations.

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> *"Identification of waste costs, such as liquid waste processing.NAh, let's see what the pond is like, or if it is already full, we have to make a plan for dredging, from there we can identify the costs."*ND Finance.

The focus of financing on palm oil liquid waste management activities is not only on waste that provides benefits for plants in absorbing their fertilizers, but there is also financing in the management of liquid waste containing B3 elements, or B3 waste. Financing for the type of B3 liquid waste is recognized and reported by the company based on the type and quantity of waste produced. The Financial ND emphasizes that financing in terms of B3 waste is recognized if the transportation of waste is in process because for its management the company is not permitted to manage B3 waste that has the potential to damage the activities of the natural ecosystem.

> *"B3 waste is recognized when we have done what is called B3 waste transportation, in this case the company can only store B3 waste because it cannot manage it. After the waste we produce is in accordance with its shelf life, and the volume is known, later there will be a sales or transportation cost and from there we must transport it to a final management site that has a permit."*ND Finance

The expression expressed in the practice of financing or economic value in the management of palm oil liquid waste shows that the management of liquid waste has a fairly broad impact on company activities, especially through the land application system, although it is limited to liquid waste that does not contain B3 elements due to the absence of a management permit by the company. This finding is in line with the findings of the study Bagas et al. (2023) which explains that environmental cost efficiency in green accounting practices is an important value because of its inseparable nature, including in the use of land application systems that empower the environment. This is in line with Pinto et al. (2024) Whichshows that well-targeted business investments in natural capital can provide high rates of return in terms of benefits to humans.

Environmental Perspective "Minimizing Environmental Impact in Palm Oil Production Processing"

The success of environmental maintenance becomes factor determinant of the sustainability of company operations. A well-maintained environment will support the company's production process, especially in palm oil companies. Management of palm oil liquid waste through a processing process using a land application system is real evidence by the company in showing that environmental maintenance with a company that continues to move has an inseparable connection. The existing connection in the attention to the company's environment after producing palm oil from the company's operations in the processing of palm oil liquid waste through a process that is quite divided into several comparisons based on company standards. The Factory CS informed that there were several separations before the liquid waste from the palm oil production process finally entered the land application which was intended for the maintenance of oil palm plants.

> *"Palm oil liquid waste or LCKS is processed through ponds, each pond has its own function, there is a cooling pond that helps to form good bacteria to kill substances that can increase BOD or control BOD, then there is a pond where bacteria live to reduce BOD during sedimentation.*

The separation process in the processing of liquid palm oil waste aims to separate liquid waste that is good for use in oil palm plantations, and liquid waste containing B3 so as to prevent environmental pollution. The company manages waste based on the form of responsibility to the environment to realize a corporate environment that illustrates sustainable development at the entity level.

The principle in the Quadruple Bottom Line theory in environmental maintenance describes the importance for companies to design a framework that has a cycle that is not only oriented towards financial profit but also towards profits that build the environment in the formation of natural empowerment in the company's oil palm plantations. The land application system in processing liquid palm waste supports growth in the plantation area so that there is no gap between the company's operations and the surrounding environmental problems. The Factory CS stated that land application is the last stage of processing liquid waste that has been separated by type, and will then be applied to plants to support their growth.

> *"So after going through the process, we send it to the land application.ALand application is the final place for the liquid waste management process which we then apply to the garden so that the oil palm roots will absorb the wastewater."Factory CS.*

The explanation of the Factory CS indicates that the company maximizes the needs needed to empower its environment, even though it uses efficient financing. Reporting on the processing of palm oil liquid waste is recorded in the company's financial report for external parties so that there is no separation and difference in the company's operational financial report.

Lau et al. (2024) have similar thoughts on the findings by stating that the results of maximizing the processing of palm oil production waste support the environment, especially in the growth of oil palm trees up to 50% with nutrients distributed up to 15%. This shows that the management of palm oil waste with a good system can provide benefits to the environment around the company.

Social Perspective "Creating Interactions That Build Company Value"

Company operations are increasingly developing with the movement in interactionsocialin society and the company.KThe sustainability of the company is also determined by the community's commitment to building the company. If the company does not see the community's life social around it can potentially cause conflict for the development of the company so that it becomes a barrier in the company's operations. Of course, the management of palm oil waste is also inseparable from the company's operational activities, so that support is needed between the company and the surrounding community in encouraging its processing which provides benefits for both parties. Companies in blending with life social The surrounding community plays a role in

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building public trust. Therefore, through the land application system in the processing of palm oil liquid waste, it greatly strengthens public trust, this was indirectly conveyed by RN, Head of Factory, who expressed

> *"The income obtained from waste management is not like a monetary value, but a profit value for plants. Waste given to plants as fertilizer is then absorbed by the oil palm roots and the effect is that the oil palm will be fertile and the fruit will be bigger or more."RN Factory Head*

The expression indirectly refers to the post-growth benefits experienced by oil palm trees in taking nutrients produced through liquid waste processing based on the land application system. Good oil palm tree growth will provide good growth and fruiting for maximum results for the oil palm harvest. Income from the harvest of oil palm fruit later, of course, has a very positive impact on the surrounding community, several reasons that support this are (1) community involvement in the harvesting process, is very much an additional workforce for the company in obtaining maximum harvest results without providing higher wages for its workforce because the return given by the company to the community is the acquisition of oil palm production results at a better price, cheaper than production results that have gone through the distribution process. (2) The community will build the company's image in responding to various complaints from external parties that could possibly lower the company's value. (3) Interaction social between companies and communities will encourage each other to develop more environmentally friendly innovations rather than producing waste that is harmful to the surrounding community. (4) The community will consciously become an agent that makes a greater contribution to sustainable development as planned in the company to achieve sustainable targets in its golden age.

The existing findings are similar to the thoughts expressed Effendi (2021) which reveals that Disclosure of Corporate Social Responsibility as an encouragement to increase public trust in the achievement of efforts to improve and enhance the environment around the company. The information provided must be transparent and accountable for its social activities so that disclosure of Corporate Social Responsibility (CSR) becomes important.

Governance Perspective "Compliance in establishing Sustainable Governance"

The main aspect in making a company able to maintain its operational activities is to have a clear goal, which requires good governance in the company. Governance is often the main focus that cannot be denied because governance isindicatorother determinants in the sustainability of the company. The company continuously needs to evaluate its operational activities so that it can update policies that provide a form of compliance with applicable regulations.

Governance cannot just happen, especially in companies engaged in palm oil plantations, the many regulations and permits that need to be complied with make companies engaged in sector. This becomes more agrarian in nature. Especially in the processing of palm oil liquid waste through land applications, companies need to go through various complex permits so that waste management activities become more structured and systematic without causing impacts.negativetowards environmental activities andsocialaround it. Processing of liquid palm oil waste in a company requires a

permit from the local government, this is included in the regulation on environmental concerns and shows that corporate governance is more proven by real practices.

> *"For example, we apply waste to land applications.KWe have to apply for a permit from the government, after they have reviewed it and proven it feasible, then we will get a processing permit."RN Factory Head*

> *"Because waste storage sites can be recognized if they have obtained a permit issued by stakeholders or the government, in this case the environmental service."ND Finance*

Consistency in conveying information regarding licensing governance for processing palm oil liquid waste through land applications indicates that the company is moving towards good governance to provide a positive impact on its operations. furthermore, based on the information managed, every liquid waste management activity of a palm oil company has a procedurestandards and sustainability that are appropriate to be practiced in field implementation, thus risk mitigation based on considerations that allow deviations or other risks faced by the company due to the impact of waste management can be overcome and minimized.The information provided to prevent risks from occurring in the management of palm oil liquid waste through land applications is reported in reports that serve as the basis for external parties to be able to contribute directly to the company through arguments and solutions to avoid threats and risks that await.

> *"For waste itself, which means the report is from the company to external parties. Currently the report is still not separated, it is still one in the general report."ND Finance*

This expression indicates something that leads to the need for companies in building their governance to pay attention to the opinions of external parties as a good consideration for the interests of the company and the sustainability of the company. Through the land application system in palm oil waste management, a positive view becomes the main measure required by the company. This is in line with Pinto et al. (2024) Which shows that well-targeted business investments in natural capital can provide high rates of return in terms of benefits to humans. findings in view Jha et al. (2024) which states by aligning environmental and human resource processes, organizations can achieve environmental sustainability goals, enhance reputation, and foster a culture of sustainable well-being.

Land Application System: The Wheel of Corporate Sustainability in Palm Oil Liquid Waste Processing

The Quadruple Bottom Line perspective in viewing corporate sustainability through the management of palm oil liquid waste by palm oil companies shows the existence of sustainability as an unbroken form. The inte gration of the four elements that build it means that this perspective approach gives priority to activities social society, the survival of living things in the company environment, the acquisition of profits that can increase the

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company's income and the renewal of governance that guarantees the company's permits to continuously renew and test the feasibility of the management implemented.

The integration of the four existing elements is described in a simple analogy like a wheel which shows the continuity of the rotation of the company's operational activities as long as the company continues to move in the direction intendedand the control held remains on the appropriate guidelines so that it can avoid various obstacles in the company's operational journey cycle, especially on the management of palm oil liquid waste. Figure 2, illustrates the wheel illustration applied in the management of palm oil liquid waste through land applications to encourage the sustainability of the company.

This finding is supported by similar thoughts put forward by (Ermawati & Suhardianto, 2024), (Paranoan et al., 2025), (Sudarminto & Harto, 2023) And (Almasyhari et al., 2024) who agreed that sustainability in the company's business activities is driven by good management of the waste produced to encourage the company toward sustainable.

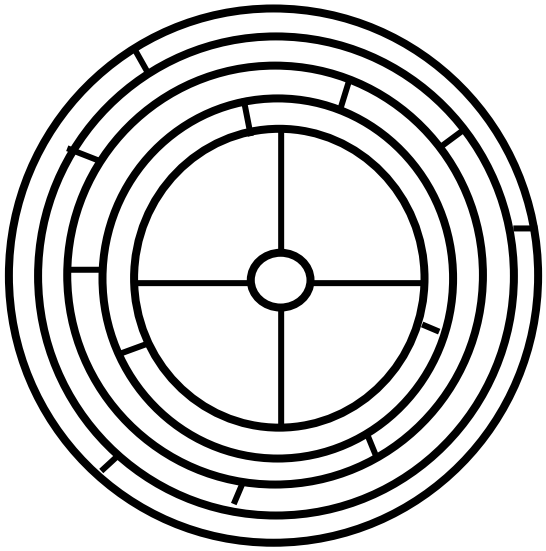

Figure 2. Analogy of Research Findings
Source: Researcher

Thus, this study concludes the results that The Land Application System is the Company's Driving Force in Implementing Sustainability in Palm Oil Liquid Waste Processing, the Quadruple Bottom Line Perspective coherently explains Processing activities starting from the Economic Perspective in Making Budgets More Efficientn, Environmental Perspective explains the Company's Concern in Minimizing environmental impacts, Social Perspective supports the empowerment of the surrounding community, and Governance Perspective ensures the implementation of operational standards based on government policies and encourages companies to move towards sustainability.

Conclusion

In reviewing the implementation of the land application system in the management of palm oil waste based on the Quadruple Bottom Line perspective in supporting the operational sustainability of palm oil companies, a simple depiction was found through the

analogy of a generating wheel that never stops turning and drives company activities to create sustainable companies in economic and environmental aspects.social, and effective, efficient governance to align the achievement of sustainable goals inindustrypalm oil and free from poorly managed waste.

The research conducted has implications for company activities to continuously innovate and carry out complex integration in realizingindustrywhich is free from environmental pollution. The limitation of the research lies in the limited exploration in the Quadruple Bottom Line perspective, further research is recommended to explore in depth the modern and innovative environmental perspective on the utilizationenergyrenewable in waste management.

References

Almasyhari, A. K., Rachmadani, W. S., & Priatnasari, Y. (2024). The Role of Environmental Accounting on Waste Management. *Shirkah: Journal of Economics and Business*, *9*(2), 261–274. https://doi.org/10.22515/shirkah.v9i2.720

Bagas, M. A., Riani, N., & Ekawati, F. (2023). Manajemen Akuntansi Hijau Dalam Efisiensi Biaya Lingkungan Studi Pada Pt. Coca Cola Bottling Indonesia Tanjung Bintang. *Journal of Interdisciplinary Science and Education*, *3*(1), 55–68.

BAKRY, M. I., MULIATI, M., JURANA, J., & RIDWAN, M. (2024). The Concept of Corporate Social Responsibility in Higher Education Institutions in Perspective Ketadulakoan. *International Journal of Environmental, Sustainability, and Social Science*, *5*(4), 879–891. https://doi.org/10.38142/ijesss.v5i4.1115

Bratt, R. G. (2022). The quadruple bottom line and nonprofit housing organizations in the United States: Housing Studies, 2012. In *The Affordable Housing Reader* (pp. 196–211). Routledge. https://doi.org/10.1080/02673037.2012.677016

Effendi, A. (2021). Factors Affecting CSR Disclosure on Palm Oil Companies in Indonesia. *Budapest International Research and Critics Institute-Journal (BIRCI-Journal)*, *4*(3), 7013–7025. https://bircu-journal.com/index.php/birci/article/view/2527

Ermawati, Y., & Suhardianto, N. (2024). Accounting and Sustainability Practices grounded in Spirituality and Ethics. *Atestasi : Jurnal Ilmiah Akuntansi*, *7*(1), 13–28. https://doi.org/10.57178/atestasi.v7i1.730

Jha, R., Mishra, S., & Sharma, A. (2024). The Integration of Green Accounting and Green Human Resource Management for Sustainable Business Practices. In *Innovative Human Resource Management for SMEs* (pp. 62–76). IGI Global.

Jurana, J., Indriasari, R., Totanan, C., Parwati, N. M. S., Mayapada, A. G., & Pakawaru, M. I. (2022). Basic environmental accountability in the yadnya ceremony in Malakosa Village, Indonesia. *AMCA Journal of Community Development*, *2*(1), 1–6. https://doi.org/10.51773/ajcd.v2i1.89

Lau, G. W., King, P. J. H., Chubo, J. K., King, I. C., Ong, K. H., Ismail, Z., Robin, T., & Shamsi, I. H. (2024). The Potential Benefits of Palm Oil Waste-Derived Compost in Embracing the Circular Economy. *Agronomy*, *14*(11). https://doi.org/10.3390/agronomy14112517

Nuswantoro. (2021). Warga Rembang Keluhkan Pembuangan Limbah Sawit. *Mongabay, Situs Berita Lingkungan*. https://www.mongabay.co.id/2021/02/07/warga-rembang-keluhkan-pembuangan-limbah-sawit/

Nworie, G. O., & Orji-Okafor, T. G. (2024). Quadruple Bottom Line Disclosure Among Listed Manufacturing Firms in Nigeria: A Paradigm for Cost Savings. *International Journal of Management, Accounting & Economics*, *11*(10). https://doi.org/10.5281/zenodo.13910231

Paranoan, S., Yusuf, R. M., & Yamin, N. Y. (2025). Accounting Reality Behind Waste Scales. *Jati: Jurnal Akuntansi Terapan Indonesia*. https://doi.org/https://doi.org/10.18196/jati.v8i1.24902

Pinto, T., Machado, T., Nicolau, D., Oliveira, N. G., & Vaz, A. S. (2024). Accounting for nature contributions to people in corporate sustainability: The case of a waste management company in Portugal. *Corporate Social Responsibility and Environmental Management*.

Purwanto. (2020). New ISPO : a New Hope to Strengthen Oil-Palm Governance? *Info Brief*, *44*, 1–6.

Ramadhani, F. N., & Ekaviana, D. (2020). Circle bottom line: mengkonstruksi akuntansi sosial-lingkungan dalam bingkai spiritualitas. *Imanensi: Jurnal Ekonomi, Manajemen, Dan Akuntansi Islam*, *5*(1), 17–24. https://doi.org/10.34202/imanensi.5.1.2020.17-24

Siagian, U. W. R., Wenten, I. G., & Khoiruddin, K. (2024). Circular Economy Approaches in the Palm Oil Industry: Enhancing Profitability through Waste Reduction and Product Diversification. *Journal of Engineering and Technological Sciences*, *56*(1), 25–49. https://doi.org/10.5614/j.eng.technol.sci.2024.56.1.3

Sudarminto, H. T., & Harto, P. (2023). Green Accounting Concepts and Practices Towards Measuring Environmental Sustainability and Sustainable Business Value. *International Journal of Science and Society*, *5*(5), 629–643. https://doi.org/10.54783/ijsoc.v5i5.927

Suyudi, M. (2012). Quardrangle Bottom Line (QBL) dalam Praktik Sustainability Reporting Dimensi "Spiritual Performance." *Jurnal Akuntansi Multiparadigma*, *3*(April), 1–14. https://doi.org/10.18202/jamal.2012.04.7148

Tajbakhsh, A., Nematollahi, M., & Shamsi Zamenjani, A. (2024). Migration to the quadruple bottom line framework for achieving sustainable development goals: the 4Ps of sustainability. *Annals of Operations Research*, 1–39. https://doi.org/https://doi.org/10.1007/s10479-024-06042-0

Tempomona, I. A. O., Yusuf, R. M., & Paranoan, S. (2023). Urgensi Artificial Intelligence Dalam Transformasi Akuntan(Si). *Jurnal Akuntansi Multiparadigma*, *14*(3), 536–551. https://doi.org/10.21776/ub.jamal.2023.14.3.37

Wedayanti, M. D., Santri, S. H., Baharuddin, T., & Yogia, M. A. (2023). *CSR and Sustainability of the Palm Oil Industry in Riau Province CSR dan Keberlanjutan Industri Minyak Kelapa Sawit di Provinsi Riau Introduction Indonesia ' s palm oil industry has become a critical sector in the country ' s econ-*. *14*(2), 195–209.

Zahrani, H. A. (2024, October 16). Pencemaran oleh Pabrik Sawit PT BMB di Kecamatan Mahuning, Gunung Mas (Pencemaran limbah dari pabrik sawit PT BMB). *Netral News Channel (NNC)*. https://www.netralnews.com/pencemaran-oleh-pabrik-sawit-pt-bmb-di-kecamatan-mahuning-gunung-mas/eWpOa01KZ2JYL2VyY3RYMWpmcUwxZz09