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Exploring the Role and Opportunities Through Eco Enzyme Making Practices in Implementing Green Accounting in Pematang Kuing Village, Sei Suka District, Batubara Regency

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Abstract

This study delves into the functions and opportunities associated with producing Eco Enzyme as a means of promoting Green Accounting in Pematang Kuing Village, Sei Suka Sub-district, Batubara Regency. Despite the tremendous agricultural potential in this village, there exist challenges in effectively managing organic waste resulting from household activities. By providing educational guidance and facilitating the production of Eco Enzyme, it is anticipated that the community will adopt a more judicious approach to organic waste management. This, in turn, will not only mitigate adverse environmental impacts but also enhance awareness regarding the significance of sound environmental stewardship. Employing a quantitative methodology and regression analysis, this research evaluates the impact of Eco Enzyme production on the implementation of Green Accounting. The findings reveal that despite efforts to heighten awareness and improve waste management practices, the influence on the utilization of Green Accounting remains largely constrained.

Keywords: Eco enzyme, Green accounting, Organic waste management, Sustainable agriculture

INTRODUCTION

Indonesia is predominantly an agricultural nation, with agriculture serving as the foundation of the country's economy. The advancement of the agricultural industry is considered a crucial element in driving future economic growth. At present, a large portion of agriculture in Indonesia remains traditional or subsistence-based. Subsistence farming

involves agricultural practices that are primarily focused on fulfilling the basic requirements of the farmer's own family, agricultural commodities are planted only for daily consumption (primary commodities) and use limited cultivation technology (Prihatiningtyas et al., 2023).

Technological advancements are bringing significant changes to the world of work. Companies and industries are changing the way they work, from business processes and so on with the adoption of technology (Kamilah & Nasution, 2024).

Vegetables and fruits are important for delivering necessary nutrients and improving general health in the human diet. Eating a diverse range of fruits and vegetables regularly not only helps maintain a balanced diet but also boosts the immune system and protects against illnesses. Nonetheless, the act of consuming these foods also results in the production of waste products like peels and scraps that are not edible for humans. These leftover materials are commonly thrown away, contributing to environmental pollution and resource depletion.

Disposing of fruit peels and leftovers in landfills has a detrimental impact on the environment by contributing to the emission of greenhouse gases and other harmful substances. Furthermore, the decomposition of organic waste in landfills can result in the release of methane gas, a potent greenhouse gas that exacerbates climate change. Therefore, it is crucial to explore sustainable approaches to handling fruit and vegetable waste in order to mitigate the environmental consequences and support resource preservation. Initiatives such as implementing composting programs or utilizing food waste for energy generation are effective methods for environmentally responsible management of fruit and vegetable waste. Converting discarded fruit and vegetable matter into compost or renewable energy resources presents an opportunity to mitigate environmental harm and promote a more sustainable and environmentally friendly lifestyle. Acknowledging the significance of fruits and vegetables in our dietary habits and implementing measures to decrease waste can pave the way for a healthier and more environmentally conscious future for humanity and the Earth.

Waste classified as organic is made up of organic substances that quickly break down either naturally or with the help of living things, particularly microorganisms (Fadlilla et al., 2023). Waste contributes to environmental pollution through the release of offensive odors, contamination of soil and water, and degradation of the visual appeal of the environment. Fruit and vegetable waste is often disposed of in open landfills in its raw form, resulting in the emission of odors and air pollution.

Utilizing fruit and vegetable peel trash to create an eco-friendly enzyme environment is one usage for it. After that, the waste is combined with water and sugar. O3 gas, or ozone, is created during the fermentation process and is used to make fertilizer and cleaning solutions (Fadlilla et al., 2023).The eco enzyme is believed to be environmentally safe and possesses acidic qualities. This acidity plays a role in transforming carbohydrates into volatile acids and breaking down organic acids in waste through fermentation. The acidity of the fermentation process assists in isolating organic waste and decreasing the likelihood of infections through extracellular enzymes.

Eco enzyme, which is derived from organic materials such as food waste, has significant potential to reduce waste and environmental pollution (Ochoa-Hueso et al., 2021). These naturally occurring enzymes can serve as an environmentally friendly alternative resource, contributing to sustainable waste management practices and reducing environmental footprint. By converting organic waste into valuable products, eco enzymes not only promote a circular economy but also help minimize the adverse impact of waste disposal on the environment (Behrooznia & Nourmohammadi, 2024). Its application can result in a cleaner ecosystem, better waste recycling processes, and reduced dependence on chemical-based solutions,

making it a promising innovation for a greener future. The application of eco enzymes will support the formation of green accounting whichwith green accounting, it encourages resource efficiency and cost savings through waste reduction and improved resource management (Amananti et al., 2024).

Green Accounting is an accounting science that seeks to identify, measure, and evaluate results and disclose costs associated with business related to the environment. The application of Green Accounting provides accountability media and decision support for stakeholders to determine environmental costs to be included in the submitted report, and makes it easier to identify environmental costs when grouped (Maisyaroh et al., 2023). According to the EPA (Environmental Protection Agency), green accounting is a combined approach that provides a form of data transition from financial accounting and cost accounting to accounting. increasing material efficiency and reducing environmental impacts and risks while reducing environmental protection costs. Green accounting or environmental accounting can play a role in addressing economic problems to the environment arising from the company's production process. Green accounting also influences approaches that integrate environmental aspects into financial statements and business decisions. This approach is particularly relevant for regional UMKM that want to improve competitiveness while maintaining environmental sustainability. To improve UMKM through this eco enzyme, UMKM can innovate by creating or using biometric technology in products or services that can bring attractive innovations to the market. For example, the use of biometric technology in mobile applications for UMKM (Nasution et al., 2020).

Thus, green accounting or Environmental Accounting is the right tool to minimize energy, save resources, reduce health risks to a safe environment, and increase competitive advantage (Wati et al., 2024).

Green Accounting is a useful link between environment and economics because it addresses environmental costs, environmental liabilities, and environmental performance. Its component parts include environmental financial accounting, environmental management accounting, environmental ecological accounting, and internal ecological accounting (Choudhary et al., 2023). In short, green accounting is essential to reduce environmental costs because it provides the instruments and knowledge needed for sustainability into the projects being executed. Green accounting also supports environmental management and financial prosperity by reducing environmental risks, increasing efficiency, encouraging innovation, and enhancing reputation (Riyadh et al., 2020).

The community should have an understanding of waste disposal procedures. The responsibility for waste management is a joint effort between the government and the public. Household waste is primarily comprised of organic materials. As a result, it is essential for the public to increase their awareness of the significance of effective waste management. Waste that is managed or recycled properly will help reduce negative impacts on the environment (Izzati et al., 2024).

Pematang Kuing Village, situated in Batubara Regency, is renowned for its rich biodiversity and natural resources. Batubara Regency, in itself, boasts various natural assets like forests, farmland, and rivers that play a crucial role in the livelihood of its residents. Pematang Kuing Village consists of 10 hamlets, each housing approximately 13 active farmer groups. Human resources have a major role. supported by adequate infrastructure and facilities without being supported by the role of human resources, the goals of the Company's Vision and Mission will not be achieved properly (Winarsih et al., 2023). This village, like many others in Batubara Regency, stands out for its distinct social and economic characteristics. The juridical existence of the village in Law No. 6/2014 explains that the village is the smallest part of the

government administration system. Because the village is part of the government system that is in direct contact with the community, every policy implementation issued by the Central Government and Regional Government must go through the village, and the consequence of village success is the role of the village (Finance & Journal, n.d.). Geographically, Pematang Kuing enjoys a fertile terrain conducive for agriculture, with its landscape mainly comprised of rice paddies, gardens, and fields, making it suitable for a variety of crops.Traditionally, the residents of Pematang Kuing Village employ age-old farming methods and also utilize chemical fertilizers.

According to the explanation, there is a need for follow-up in managing household organic waste, agricultural techniques, and the use of chemical fertilizers in Pematang Kuing village. In response to this, we, as students of KKN Universitas Islam Negeri Sumatera Utara Group 16, organized a counseling session on the production of Eco Enzyme and Green Accounting for farmer groups in the village. The purpose of the counseling was to enhance natural agricultural productivity, which is especially important in a community where the majority are farmers, and to promote awareness about effective environmental management throughout the village's production and consumption processes.

LITERATURE REVIEW

Eco Enzyme

Eco enzymes are generally composed of fruit or vegetable waste, water, and sugar, and are generated via the fermentation of kitchen waste as a substrate. These enzymes theoretically work as biocatalysts, with "bio" indicating living creatures and "catalyst" signifying a material that accelerates processes. Eco enzyme is a complex organic compound that is fermented from fresh kitchen waste as substrate with sugar Eco enzyme is a liquid extract produced through fermentation of vegetable and fruit scraps using brown sugar or molasses as substrate Eco enzyme was first introduced by Dr. Rosukon Poompanvong the founder of the Organic Farming Association in Thailand. Dr. Rosukon Poompanvong has been researching waste enzymes for 30 years.

Eco enzyme has many benefits, such as as a natural cleaner on surfaces and also serves to clean the air. According to Goh in Eco enzyme is also useful as a plant growth factors, cleaning detergent blends floor, cleaning pesticide residues and scale, and decrease in car radiator temperature From the narrative Mr. Joko Riyanto, as one of the founders of Eco Enzyme Nusantara Bali Community, many requests related to socialization about eco enzyme from the community then formed a community with the same goal (Balqis & Arifianto, 2024). Eco Enzyme Community Nusantara is a non-profit organization, first introduced itself to the community in 2019. Eco Enzyme Nusantara Community has established in all provinces in Indonesia, with their respective regional leaders for coordination. People who are interested in learning eco enzyme can join easily through community forums on social media or contact volunteer members directly.

Eco enzyme is a term used to describe a naturally occurring, biodegradable liquid made from the fermentation of organic waste, typically fruits, vegetables, and sugar. The fermentation process produces an enzyme-rich solution that can be used for a variety of purposes, including waste management, cleaning, and agriculture. This eco-friendly solution provides a sustainable alternative to chemical-based products, helping reduce waste and lower the ecological impact of daily activities.

The most studied eco enzymes catalyze the degradation of the largest environmental sources of organic C, nitrogen (N), and phosphorus (P). The largest organic C pool is structural

polysaccharides that form the cell walls and matric glycolates of plants and microorganisms, followed by lignins and other secondary polyphenolic molecules, storage polysaccharides, and lipids. Polysaccharide degradation is primarily hydrolytic; lipid and phenolic degradation is primarily oxidative. The organic N pool includes polymers of amino acids and aminosaccharides, which are sources of C and N. The organic P pool includes labile nucleic acids and phospholipids and more recalcitrant P storage products, principally inositol phosphates (Vidalia et al., 2023).

Green Accounting

The most effective measures are the preventive ones that actually discourage the start-up of businesses that could further damage the Natural capital. This could be done introducing the ‘‘green accounting’’ in the phase of the investment project appraisal and business plan preparation for a new power plant. When the investment projects are prepared in conventional way, using traditional cash-flow analysis, the environment protection costs are usually assumed not to affect significantly a new factory’s operations. Both owners and managers emphasize profitability indicators, like the return of investment period, breakeven point, internal rate of return, etc., which is easy to understand. It is only normal for them to wish for the investment to pay off as soon as possible, and if they invest in cheaper ‘‘non-green’’ technologies and cheaper ‘‘non-green’’ energy sources, like fossil fuels, it will happen sooner. However, if the ‘‘green accounting’’ is used that penalizes for the damage done by using cheaper ‘‘non-green’’ fossil fuels, investors might actually conclude that the greener energy sources actually pay off in longer terms.

When the ‘‘green accounting’’ is used, it is necessary to identify and quantify the environmental impact of the investment project and the cost of annulating this impact (soil remediation, water purification, and other clean-up action), not to mention irreversible damage to the environment and human health. Without these calculations, investment managers may make very ‘‘expensive’’ wrong decisions, especially from the perspective of future generations. The costs treated by the standard accounting are insufficient if the environmental and social responsibility is considered. Environmental accounting includes production, analysis and the use of information related to financial matters in the environment regarding the economic and environmental performances of a company. It is aimed to create a better relationship between financial and environmental performances, including environmental constancy in the organization’s culture and performance by providing needed information for decisionmakers to reduce commercial costs and risks, thereby adding value. Economic savings only constitute part of the business for sustainable development (SD) (Stanojević et al., 2010). The higher value relates to non-obvious advantages that are related to the social and environmental responsibilities of the company. Among the non-obvious advantages, value of the brand and its popularity, the ability to attract and maintain the best people, higher efficiency of the workforce, etc. could be mentioned. Environmental accounting instruments especially for industrial accounting (that includes both social impacts and environmental impacts) can help financial managers to respond to the increasing volume of legislation development and voluntary actions.

Waste recovery has become one of the most important strategies to reduce environmental issues and improve economic performance in an industry. Thus, different systematic approaches have been developed for waste recovery. With increasing resource scarcity and environmental impacts resulting from inefficient resource utilization, accounting for resource consumption along the life cycle of a product or service becomes critical for

designing production–consumption systems. Many environmental costs can be significantly reduced by making better business decisions for investing in more environment-friendly technologies (green industries) and re-designing processes and products because some of these costs may not add value to the system or product (Rounaghi, 2019).

Until now, waste has been becoming a public concern. Waste means the useless, unwanted, and discarded material or product. Despite being unwanted material, it still can be utilized when humans reuse and recycle it for another product, such as eco-enzyme. Nevertheless, according to the Waste 4 Change the waste accumulation in Indonesia within 2021 was 24 million tons and dominated by household waste (41.1%). The elevated waste accumulation pushes the application of waste management practices to reduce the negative impact on society (Hmad & Gargouri, 2024).

RESEARCH METHODS

The type and approach of research used in this study uses a quantitative data processing model with the type of research on the influence or regression of two variables. Quantitative analysis uses a deductive thinking approach where the analysis framework starts from general problems to specific problems (Zakariah et al., 2020). Quantitative Research Methods, as stated by (Sugiyono, 2019) can be interpreted as research methods based on the philosophy of positivism, used to research certain populations/samples, sampling techniques are generally carried out randomly, data collection uses research instruments, data analysis is quantitative/statistical with the aim of testing the established hypothesis (Ph.D. Ummul Aiman et al., 2022)

The population in this study was 101 people from Pematang Kuing Village, Sei Suka District, Batubara Regency, obtained from the KKN Group 16 work program through extension and practice events for making eco enzymes and green accounting to farmer groups by distributing questionnaires and conducting interviews with the farmer groups, while the sample is part of the number and characteristics of the population. If the population is large, and researchers cannot study everything in the population, for example due to limited funds, manpower and time, then they can use samples taken from that population. All populations are used as samples in this study or can be said to be a census in sampling (Sugiyono, 2004)

In order to minimize errors and remove bias, SPSS software is utilized for data analysis and processing to examine validity, reliability, simple linear regression analysis, and correlation. The data collected is in the form of interval data, which is commonly used to evaluate specific attitudes or characteristics of individuals. Participants are able to provide responses on a scale ranging from positive to negative, based on their perception of the individual being evaluated. A rating of 5 indicates a highly positive perception of the eco enzyme practice, while a rating of 3 signifies a neutral viewpoint, and a rating of 1 indicates a very negative perception of the eco enzyme practice.

RESULTS AND DISCUSSION

Results

1. Multiple Linear Regression Test

This analysis is used to calculate how much influence the independent variable has on the dependent. The regression model tested is:

$$M = \alpha + \beta 1X1 + \beta 2X2 + \mathcal{E}$$

The results of the analysis using SPSS software are as follows:

Table 1
Model Test

Coefficientsa

Model		Unstandardized Coefficients B	Std. Error
1	(Constant)	13,060	1,869
	X1	-.114	.068
	X2	-.016	.064

a. Dependent Variable: Y

Source: Data Processed (2024)

Referring to the results of the model test presented in the table above with the equation and will be explained as follows:

M =13.060- 0.114X1- 0.016X2

1. The static numerical value of 13,060 indicates that in the scenario where the variables representing the role and potential of eco enzyme manufacturing practices are either nonexistent or negligible, the implementation of green accounting has been established at a level of 13,060 units.
2. The coefficient of 0.114 regarding the impact of eco enzyme manufacturing practices signifies that a one-unit increase in this variable results in a decrease of 0.114 units in the implementation of green accounting.
3. The coefficient of 0.016 in relation to the opportunity for engaging in eco enzyme production suggests that for every one unit increase in the opportunity variable for practicing eco enzyme production, there is a corresponding decrease of 0.016 units in the implementation of green accounting.

2. Partial Test

A partial examination is conducted to assess the impact of the independent variable on the dependent variable. The subsequent chart illustrates the analysis conducted through the t-test using the SPSS software version 25.

Table 2
Partial Test
Coefficientsa

Model		T	Sig.
1	(Constant)	6.988	.000
	X1	-1,690	.094
	X2	-.250	.803

a. Dependent Variable: Y

Source: Data Processed (2024)

Referring to the partial test table using the t-test, the analysis is as follows:

a. The t-value for the variable associated with eco-friendly enzyme production practice is 1.690, falling below the critical t-value of 0.98472, suggesting a notable difference. The significance level is set at 5%, with a p-value of 0.094, exceeding the threshold of 0.05. As a result, hypothesis one (Ha1) is refuted, indicating that there may be only limited or negligible positive influence from the eco enzyme manufacturing practice variable on the acceptance of green accounting.
b. The calculated t-value for the variable associated with the practice of eco enzyme production is 0.250, which falls below the critical t-value of 0.98472, indicating a lack of statistical significance. The significance level for the t-test is set at 5%, with a resulting significance value of 0.803, surpassing the established threshold of 0.05. Consequently, the rejection of the second hypothesis (Ha2) implies that there is no substantial correlation between the practice of eco enzyme production and the adoption of green accounting practices.

3. Simultaneous Test

This test is a test carried out to see the influence between the independent variable and the dependent variable.simultaneously. Therefore, in this study, a simultaneous test was conducted to determine the influence between the role of eco enzyme manufacturing practices, opportunities for eco enzyme manufacturing practices and perceived control perceptions on the implementation of green accounting. The following table is presented to show the results of the simultaneous test that has been conducted.

Table 3
Simultaneous Test

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	12.305	2	6.153	1,449	.240b
	Residual	411,805	97	4.245		
	Total	424.110	99			

a. Dependent Variable: Y

b. Predictors: (Constant), X2, X1

Source: Data Processed (2024)

According to the table displaying the concurrent test results above, it is evident that the analysis on the impact of eco enzyme manufacturing practices (X1) and the opportunity for eco enzyme manufacturing practices (X2) on green accounting implementation (Y) shows no significant effect, as the F-count value is 1.449 compared to the F-table value of 3.09 (F-count < F-table) at a significance level of 0.240 > 0.05. Consequently, hypothesis three (Ha3) is rejected based on these results. The study findings suggest that both the role of eco enzyme manufacturing practices and the opportunity for eco enzyme manufacturing practices do not have a simultaneous impact on green accounting implementation.

4. Test of Coefficient of Determination

This examination is utilized to assess the level of impact of the independent variable on the dependent variable. The subsequent table presents data on the level of influence of eco enzyme manufacturing practices, opportunities for eco enzyme manufacturing practices, and perceived control on the adoption of green accounting.

Table 4
Test of Determination Coefficient

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.170a	.029	.009	2.06044	1,916

a. Predictors: (Constant), X2, X1

b. Dependent Variable: Y

Source: Data Processed (2024)

The determination coefficient R Square based on the estimation of the determination coefficient shown in the table above is 0.029. This shows that the influence of the independent variable on the dependent variable is 2.9%. While the remaining 97.1% is influenced by other variables not examined in this study.

Discussion

Organic waste from food and beverage processing can be processed into useful items, including compost and eco enzymes (Chavan et al., 2022). The type of organic waste that is processed into eco enzymes is only raw vegetable or fruit waste. The stages in making eco enzymes include: preparation, fermentation process and evaluation.

To begin the preparation process for eco enzyme, the first step is to gather all the necessary materials and tools. One of the initial tasks involves sorting out organic waste such as peels and raw fruits. These fruits and vegetables are then cut or chopped into smaller pieces. It is important to note that the fermentation process, which results in the production of alcohol and acetic acid, should only be used on plant-based products due to their sugar content. The decomposition and fermentation of meat differ from that of plants, as meat tends to spoil quickly and can generate harmful pathogens when not properly regulated. Additionally, other essential ingredients to prepare include brown sugar, palm sugar, molasses, and water. As for the tools required, it is recommended to use airtight plastic containers that can expand easily, rather than glass containers, as the fermentation process releases a significant amount of gas.

Fermentation Process, After the necessary materials and tools are ready, the next process is to carry out the fermentation process (Fadlilla et al., 2023).

a. Fill the designated bucket/container with clean water. The proportion of water to other components is 10, with the ratio of the leftover fruits or vegetables being 3, and the ratio for brown sugar/molasses is 1, resulting in the ratio being Water: fruits/vegetables: molasses = 10: 3: 1. It is important to ensure that all ingredients are added to the container in such a way that it does not completely fill up the container as space is required for the fermentation gas.
b. Put brown sugar into a container filled with water and then stir until dissolved in water. Brown sugar/molasses serves as a source of sugar for bacteria to ferment.
c. Chop the fruit and vegetable skins into small pieces and place them in a container. Ensuring the proper ratio of each ingredient is essential for a successful fermentation process. The smaller pieces will help facilitate smooth fermentation.
d. After all the ingredients are put into the container, mix/stir all the ingredients so that they are well mixed, then close the container properly, make sure the container is airtight so that no air can escape or enter the container.
e. Store the container in a dry place at room temperature and avoid direct exposure to sunlight.
f. The container should be opened daily for the first 2 weeks and every day for the first month to release gas. When you open the Eco Enzyme container, if there is material that remains on the surface, you can mix and press it until it sinks into the liquid. Allow the fermentation process to continue for 3 months. After 3 months, strain the eco enzyme using gauze or a sieve. The leftover material can be reused for a new batch by adding fresh waste. The residue or dregs can be dried, blended, and then buried in the soil as fertilizer. The remaining residue of the Eco Enzyme can provide several benefits, such as acting as a starter or speeding up the production of the next batch.

Evaluation, The fermentation process in making EE can be said to be successful and can be used with maximum results if it meets the indicator criteria of color, odor or aroma and gas content. The indicators include (Sutrisnawati et al., 2022):

a. The fermentation process, lasting for a period of 3 months, will lead to a transformation in color from the start to the finish. This duration is essential for the natural occurrence of fermentation and decomposition. At the beginning, the liquid is transparent, but as time progresses, it will become murky and brown. The variation in color will be unique depending on the specific ingredients utilized. Even if the components are identical,

diverse microorganisms will produce varying colors.

b. The smell of the product will match the ingredients used, without any unpleasant odors. If the fermentation process is successful, the liquid will have a distinct alcohol smell after one month, and a pleasant, tangy vinegar smell after two months.
c. There is white fungus. If the fungus is black, it means it has failed, and must be immediately restored by adding sugar to the container according to the original measurement.

Application of Eco Enzyme Liquid: The fermentation process's byproduct, Eco Enzyme Liquid, is utilized in a number of ways, including (Jelita, 2022):

a. As a Floor Cleaning Liquid Eco enzyme liquid can be used as a multipurpose cleaning liquid. One of the uses of eco enzyme liquid at The Jayakarta Suites Komodo Flores is as a floor cleaning liquid in the kitchen area. How to apply dissolve pure EE and water with a ratio of 1: 10. After that apply to the floor using a mop. The dissolved EE liquid can last a maximum of 7 days.
b. Utilizing eco-enzyme plant fertilizer, one can enhance the quality and flavor of fruits and vegetables, eradicate pests, and fertilize soil and plants. How to apply it is: mix 30 ml of Eco enzyme into 2 liters of water. Put the mixture of water and Eco enzyme solution into a spray bottle and spray it on the soil around the plant.
c. Eco Enzyme Pest & Insect Repellent is very effective in repelling plant pests such as orchids and vegetables, even pests or animals that bother around the house, such as cockroaches, ants, flies, mosquitoes, and other insects. Application: mix 15 ml of Eco Enzyme into 500 ml of water. Put the mixture of water and Eco enzyme solution into a spray bottle and spray it on the part of the plant that is attacked by pests or where the insects nest.

CONCLUSION

The utilization of eco enzymes in managing organic waste could enhance awareness of the significance of effective environmental management. Nevertheless, the impact on overall adoption of green accounting remains quite limited, as shown by a coefficient of determination revealing that just 2.9% of the dependent variable is affected by the independent variables examined. Therefore, additional measures are necessary to enhance comprehension and application of green accounting within the population, including more comprehensive training and assistance from governmental and affiliated organizations.

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ATTACHMENT

Commented [ra1]: Uji asumsi klasik sudah ditempatkan di bagian lampiran

Validity Test

The outcomes presented are derived from data analysis performed with the use of validity assessments, aimed at evaluating the roles and opportunities associated with producing eco enzymes as part of the implementation of green accounting in the village of Pematang Kuing, located in the Sei Suka District of Batu Bara Regency. The analysis was conducted utilizing the SPSS software for data processing.

Table 5
Validity Test

Research Instruments	R count	R table	Information
X1			
P 1	.673**	0.1966	Valid
P 2	.688**	0.1966	
P 3	.712**	0.1966	
P 4	.714**	0.1966	
P 5	.704**	0.1966	
P 6	.685**	0.1966	
X2			
P 1	.737**	0.1966	
P 2	.716**	0.1966	
P 3	.770**	0.1966	Valid
P 4	.740**	0.1966	
P 5	.612**	0.1966	

Y			
P 1	.880**	0.1966	Valid
P 2	.819**	0.1966	
P 3	.886**	0.1966	

Source: Data Processed (2024)

Because r count > r table, then from the validity test table above it can be shown that all components or questions are declared valid.

Reliability Test

The purpose of this examination is to assess the measuring instrument's stability. The outcomes of the reliability analysis conducted with SPSS version 25 are outlined in the subsequent table.

Table 6
Reliability Test

Variables	Cronbach's Alpha	N of Items	Information
(X1)	0.787	6	Reliable
(X2)	0.768	5	
(Y)	0.825	3	

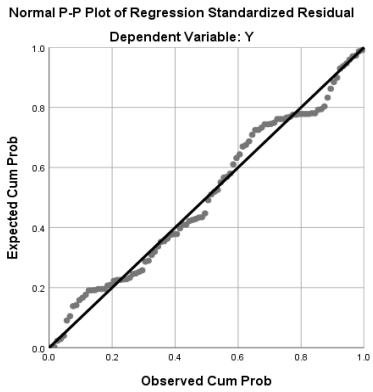
Source: Data Processed (2024)

All the research variables in this study demonstrate a Cronbach's Alpha value exceeding 0.7, as evidenced in the reliability test table provided. Consequently, in accordance with current standards, all research variables are deemed to be reliable and trustworthy.

1. Normality Test

This examination is utilized to determine the normal distribution of a set of data. Below is a visual representation displaying the results of the analysis performed using SPSS version 25.

Figure 1
Normality Test



The results of the normality test indicate that the regression model exhibits a normal distribution, as evidenced by the alignment of plotted data points with the diagonal line in the p-plot normal test image.

Multicollinearity Test

This is a test to determine the relationship between independent variables. In this study, the independent variables being examined are financial inclusion and capital. The analysis results, displayed in a table, show the outcome of a multicollinearity test carried out using the software SPSS version 25.

Table 7
Multicollinearity Test

Coefficientsa

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	X1	.999	1.001
	X2	.999	1.001

a. Dependent Variable: Y

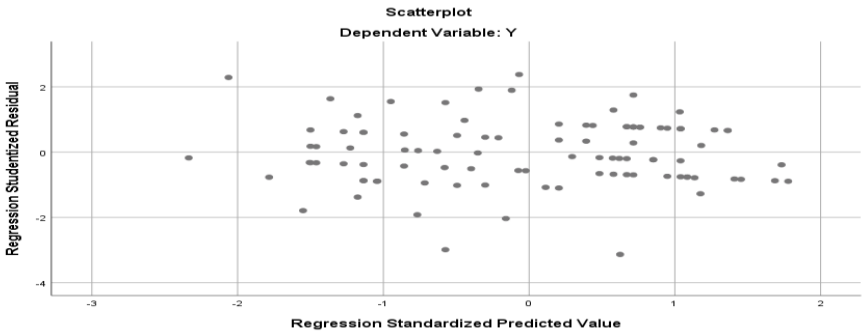
Source: Data Processed (2024)

According to the results of the multicollinearity test provided, it has been determined that only the independent variables of capital and financial inclusion do not exhibit multicollinearity. This conclusion is supported by tolerance levels that surpass 0.10 and VIF values below 10 for both of these independent variables.

Heteroscedasticity Test

The purpose of this test is to examine if the residual variance of a single observation is distributed non-uniformly within the regression model. The results of the heteroscedasticity test analysis, using SPSS version 25 software, are depicted in the figure located on the right.

Figure 2
Heteroscedasticity Test



The scatterplot illustrating each equation displays a consistent distribution pattern, as corroborated by the results of the heteroscedasticity test discussed previously. The data points are uniformly distributed both above and below the 0 value on the Y axis. Consequently, it can be deduced that the regression model remains unaffected by heteroscedasticity.