BIOLOGICAL ASSET DISCLOSURE: A STUDY ON AGRICULTURAL COMPANIES IN INDONESIA

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A R T I C L E   I N F O

A B S T R A C T

Research Purposes. *This research aims to investigate the effect of biological asset intensity and the characteristics of boards of directors on the disclosure of biological assets.*
Research Methods *The population in this study is the agriculture companies listed on the BEI using a purposive sampling method with 216 samples between 2005 and 2021. Data analysis uses multiple linear regression using STATA version 17.*
Research Results and Findings. *The result indicates that biological asset intensity, board of directors size, and board of directors accounting expertise positively affect the disclosure of biological assets. The evidence has direct implications for companies in selecting directors, as stakeholders may demand the appointment of directors with accounting experts.*

A B S T R A K

Tujuan Penelitian. *Tujuan penelitian ini adalah untuk melihat bagaimana pengaruh intensitas aset biologis dan karakteristik dewan direksi terhadap pengungkapan aset biologis.*
Metode Penelitian. *Populasi dalam penelitian ini adalah perusahaan agrikultur yang terdaftar di BEI dengan metode purposive sampling menggunakan 216 sampel selama periode 2005-2021. Analisis data menggunakan regresi linier berganda dengan menggunakan STATA versi 17.*
Hasil Penelitian dan Temuan Penelitian. *Hasil penelitian membuktikan bahwa intensitas aset biologis, ukuran dewan direksi, dan keahlian akuntansi dewan direksi memiliki pengaruh positif terhadap pengungkapan aset biologis. Hasil ini memiliki implikasi langsung bagi perusahaan dalam pemilihan direksi dimana pemangku kepentingan dapat menuntut penunjukan direksi yang memiliki keahlian akuntansi.*

INTRODUCTION

Indonesia's agricultural sector has great potential. The ASEAN Secretariat's report on the *Statistical Yearbook 2021* (The ASEAN Secretariat, 2021) notes that more than thirty-three percent of land area in Indonesia has been used or allocated for agricultural purposes. National data, data according to the Badan Pusat Statistik (2021), also notes that the structure of Indonesia's Gross Domestic Product (GDP) in 2021 is dominated by the agricultural sector, with a contribution of 13.28%. The agricultural sector has played rds, a crucial factor in Indonesia's economic system.

The uniqueness of the agricultural sector lies in the main assets owned, namely biological assets (Van Biljon & Scott, 2019). The uniqueness of this group of assets is that they will continue to change over time. These changes include quantitative and qualitative changes such as growth, degeneration, procreation, and production. This phenomenon is known as biological transformation. The possibility of agricultural companies communicating information related to biological assets in a biased manner is an inevitable consequence, so it is crucial that biological assets value can be reasonably measured and demonstrated. These results then become essential to be conveyed to stakeholders to meet the final objectives of the financial reporting stage.

Facing this phenomenon, the development of the agricultural sector is something to look forward to, especially regarding biological assets disclosure

information. In this regard, the first step was initiated with the entry into force of the Pernyataan Standar Akuntansi Keuangan (PSAK) No. 69 about agriculture (Ikatan Akuntan Indonesia, 2018). The implementation of PSAK No. 69 aims to regulate agricultural activities, especially in accounting and disclosure treatment . Given the agricultural sector's contribution to Indonesia's economy, implementing PSAK No. 69 is expected to further widen the door to investment in efforts to develop the agricultural sector in Indonesia.

The company's performance can be reflected through the information disclosed (Khoesuma, 2022; Wardhani et al., 2019). One of the means of disclosure by companies is through annual reports (Ulupui et al., 2021). The annual report issued by the company contains information and records that reflect the position and performance of the company (Rahman & Kartika, 2021). In addition, the disclosure of information made by the company is also a means to attract new investors to get capital (Qamruzzaman et al., 2021). Conversely, from the point of view of investors, information availability is vital as a basis for making a decision. The available information will be able to influence investor interest. In the context of agricultural activities, information such as the quantity of each type or group of biological assets owned, gender, variety, species, age, and other descriptions will be used by investors to reevaluate and estimate the prospects of the company based on market information and knowledge they have (van Biljon & Scott, 2019). In other words, an investor's investment decisions will be influenced by the biological asset information disclosed.

Several studies on the determinants of biological asset disclosure have been conducted before. One factor that is widely studied is the intensity of biological assets (Carolina et al., 2020; Ika et al., 2022; Istutik & Ainun, 2021; Kartikasari et al., 2021; Nikmah et al., 2022; Zufriya et al., 2020). The intensity of biological assets shows is supported by *stakeholder* theory. The company obtains funds from *stakeholders, which* are then allocated to increase biological assets Higher intensity of biological assets increases, higher accountability be given by *stakeholders*. One of the urgent responsibilities to do is the disclosure of biological assets. Carolina et al. (2020) proves the intensity of biological assets positively influence the disclosure of biological assets. Nikmah et al. (2022) also agreed that the higher the intensity of a company's biological assets, the greater the impetus to disclose more complete information about biological assets. However,

Kartikasari et al. (2021) found the opposite or negative findings. As for other impartial research results, Carolina et al. (2020) and Kartikasari et al. (2021) also found, Alfiani & Rahmawati (2019) did not find relationship between biological assets intensity and biological assets disclosure. This result is also confirmed by Zufriya et al. (2020). Therefore, the high intensity of a company's biological assets does not guarantee much and complete disclosure of biological assets made by the company. The existence of inconsistencies and differences in the results of previous studies prompted researchers to examine the influence of biological asset intensity on biological asset disclosure.

In addition, researchers are also interested in examining the effect of board involvement on the disclosure of biological assets of agricultural companies. This is because, based on Undang-Undang Republik Indonesia No. 40 (2007) about Perseroan Terbatas, the preparation and issuance of the Company's Annual Report is the responsibility of the Company's Board of Directors concerned. Thus, the involvement and character of the board of directors of a company will also influence the information in the company's annual report (Dey et al., 2020; Imelda et al., 2022; Milad & Bicer, 2020). Therefore, researchers also added variables of board size and board of directors accounting expertise to be studied in this study. To the best of the researcher's knowledge, these variables have never been studied in research on biological asset disclosure.

In addition to differences in results and limited use of variables, previous studies still have limitations. Most past studies have only examined the disclosure of biological assets in recent years. Alfiani & Rahmawati (2019), e.g., just researching for years 2014-2017, while Carolina et al. (2020), Istutik & Ainun (2021), dan Zufriya et al. (2020) researching for years 2016-2018, dan Nikmah et al. (2022) researching for tahun 2018-2020. A narrow scope will cause the sample size to get smaller. Research Alfiani & Rahmawati (2019) only used 72 (seventy-two) samples; even Istutik & Ainun (2021) only used 57 (fifty-seven) samples. Limitations in previous studies have motivated researchers to see how the influence of biological asset intensity, board size, and board accounting expertise on biological asset disclosure. The object of research is an agricultural company listed on the Indonesia Stock Exchange (BEI) for the period 2005-2021. The company size variable was also used as a controlling variable in this study by adopting the study Ika et al. (2022). The larger the company, the higher the

tendency of company management to disclose its biological assets to accommodate various *stakeholder interests*. The result from Ika et al. (2022) shows that the company's size positively influences the disclosure of biological assets.

LITERATURE REVIEW
Teori Stakeholder

Stakeholder theory provides the perspective that the company also prioritizes the interests of *other stakeholders*. The term *stakeholder* includes all parties that can influence management in company operations, such as shareholders, creditors, consumers, government, and other stakeholders.

Stakeholder *theory* emphasizes that the role *of stakeholders* with various backgrounds and motives of interest will impact a company's sustainability (Carolina et al., 2020). The support provided by *stakeholders* will significantly affect the sustainability of the company. Therefore, companies try to adopt ways to provide satisfaction to *stakeholders* so that the company's sustainability is maintained, and information disclosure is one of the commonly chosen options (Istutik & Ainun, 2021). In agricultural companies, biological assets are the main element to be reported to *stakeholders*.

Biological Assets

The main element in agricultural sector enterprises is biological assets. Biological assets are animals and/or plants that undergo biological transformation due to past events and can potentially provide economic benefits in the future (Ikatan Akuntan Indonesia, 2018). The definition of biological transformation based on PSAK No. 69 is changes in assets through (i) growth, i.e., increase in quantity or change in the quality of biological assets; (ii) degeneration, i.e., decrease in quantity or deterioration of the quality of biological assets; or (iii) procreation, i.e., the creation of a new living animal or plant; or the production of agricultural products. Agricultural products refer to the produce harvested or produced by a biological asset.

PSAK No. 69 has regulated various aspects related to biological assets, including recognition, measurement, and disclosure. PSAK No. 69 states that recognition of biological assets needs to take into account the following circumstances: entities controlling biological assets due to past events (Ikatan Akuntan Indonesia, 2018). Future economic benefits related to biological assets are likely to flow to the main body, and the fair value or cost of biological assets can be reliably measured. Biological assets can be classified as current or fixed assets

according to the valuable life of biological transformation. Based on the inherent characteristics, biological assets can also be classified into two groups: consumable biological assets and carrier biological assets. Consumable biological assets are harvested as agricultural products or sold as biological assets. Examples can be livestock intended for meat production, fishing businesses, and trees planted to produce timber. Bearer biological assets are groups other than biological assets that can be consumed, for example, livestock from which milk is produced, grapes, and fruit trees. The biological asset of the carrier is not agricultural products but is self-regeneration. In addition to these two types of biological assets, biological assets can be classified as adult or immature. Mature biological assets have reached harvestable specifications (for consumable biological assets) or can maintain regular harvests (for carrier biological assets).

Measurement of biological assets using the fair value method, except where the fair value of assets cannot be reliably measured. Biological assets are measured at fair value minus the cost of sales at the beginning and end of each reporting period (Ikatan Akuntan Indonesia, 2018).

Biological Asset Disclosure

Disclosure means delivering information to stakeholders (Ulupui et al., 2021). Disclosure can be voluntary or mandatory. Voluntary disclosure is the submission of information that is carried out without coercion by the rules and is carried out purely on the personal awareness of the company. In contrast to mandatory disclosure, which must be done by the company following applicable rules, there is an element of coercion.

The details of disclosure of biological assets are voluntary or mandatory as stipulated in PSAK No. 69 (Ikatan Akuntan Indonesia, 2018). The disclosed biological asset information can be conveyed through quantification or narrative explaining biological asset information. As stipulated in PSAK No. 69, there are 40 (40) items of biological asset disclosure, 33 (thirty-three) items are mandatory disclosures, and 7 (seven) items are voluntary disclosure.

Forward-looking information can provide an overview of the company's performance and prospects (Rifai & Siregar, 2021). In the context of biological asset disclosure, one of the disclosure items that the company must fulfill is disclosure related to the company's commitment to developing or acquiring biological assets. The company's

commitment to maintaining the average age of its biological assets through rejuvenation programs is information that can estimate its future performance. Therefore, disclosure of biological assets is also included as forward-looking information.

Intensity of Biological Assets

The intensity of biological assets describes the proportion of investment to biological assets owned by the company (Carolina et al., 2020). Biological assets are the main assets of agricultural companies and are a critical factor in the operation of agricultural companies, so the value of biological assets is generally dominant. Given the urgency of achieving corporate goals, it is only natural that agricultural companies continue to focus on investing in biological assets. Alfiani & Rahmawati (2019) also added that the intensity of biological assets can also be described as cash expectations that will be received if the assets are sold.

Board of Directors Size

The size of the board of directors is the overall members of the board of directors in the company. Based on Undang-Undang Republik Indonesia No. 40 (2007) concerning Limited Liability Companies, one of the duties and responsibilities of the company's board of directors is to prepare and issue the company's annual report. Thus, the disclosure of biological assets in the company's annual report cannot be separated from the role of the company's board of directors concerned. According to Bae et al. (2018), the size of the board of directors is a form of the company's commitment to providing disclosure and transparency to stakeholders and assurance that various stakeholder interests have been considered in operations and decision-making by the company.

Board of Directors Accounting Expertise

Based on Undang-Undang Republik Indonesia No. 40 (2007) concerning Limited Liability Companies, one of the duties and responsibilities of the company's board of directors is related to preparing and issuing the company's annual report. Thus, the involvement and expertise of the board of directors will contribute and greatly determine the disclosure of biological assets in the annual report of the company concerned. The presence of a board with an accounting background in the composition of the board of directors is considered capable of providing various advantages for the company. This is because boards with accounting expertise have knowledge of the reporting rules set by regulators

and tend to know the items that must be disclosed (Rifai & Siregar, 2021).

Hypothesis Development
Effect of Biological Asset Intensity with Biological Asset Disclosure

The company's investment in biological assets can be reflected through the intensity of biological assets. In line with *stakeholder* theory, companies must conduct business activities and report to *stakeholders*. In other words, *stakeholders* have the right to be provided with information, and companies can disclose information beyond what is required to meet expectations and gain *stakeholder support* (Nikmah et al., 2022). A positive relationship was found between biological asset intensity and disclosure (Carolina et al., 2020) and (Nikmah et al., 2022). Based on the explanation above, the following hypothesis is obtained:

H_1: The intensity of biological assets positively affects the disclosure of biological assets. The intensity of biological assets positively affects the disclosure of biological assets.

The Effect of Board of Directors Size on Biological Asset Disclosure

Based on *stakeholder* theory, a larger board size allows directors to have a broader and more critical mind so that the company can give responsibility to *stakeholders* (Nasih et al., 2019). The large size of the board also demonstrates the company's commitment to providing disclosure and transparency to *stakeholders* to ensure that various *stakeholder* interests have been considered (Bae et al., 2018). Previous research has provided empirical evidence that the size of a *board of directors* positively influences *voluntary disclosure.* Previous research has provided empirical evidence that the size of a *board of directors* positively influences *voluntary disclosure* (Milad & Bicer, 2020) and *forward-looking disclosure* (Dey et al., 2020a). Based on the explanation above, the following hypothesis is obtained:

H_2: The size of the board of directors positively affects the disclosure of hypothetical biological assets

Effect of Board of Directors Accounting Expertise with Biological Asset Disclosure

The presence of a board with an accounting background in the composition of the board of directors is considered capable of providing various advantages for the company. This is because boards with accounting expertise have knowledge of the reporting rules set by regulators and tend to know

the items that must be disclosed (Rifai & Siregar, 2021). In line with *stakeholder theory*, the presence of a board with accounting expertise also adds to the heterogeneity of directors to better ensure that various *stakeholder* interests are considered in decision-making related to information disclosure. Previous research has provided empirical evidence that *accounting expertise* positively influences *forward-looking disclosure* on audit committees (Abad & Bravo, 2018; Rifai & Siregar, 2021) and the board of directors (Bravo & Alcaide-Ruiz, 2019). Based on the above explanation, the following hypothesis was obtained:

H_3: The accounting expertise of the board of directors positively affects the disclosure of biological assets.

Research Model
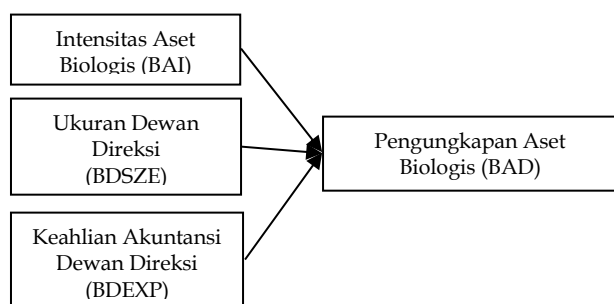
Figure 1. Research Model

RESEARCH METHODS

The type of research used in this study is quantitative. This study aims to determine and prove the causal relationship between variables (Sugiyono, 2019). Then, researchers can conclude and answer the problems presented in this study, namely the influence of biological asset intensity, the size of the board of directors, and the accounting expertise of the board of directors on the disclosure of biological assets of agricultural sector companies.

The study population is agricultural sector companies on the IDX between 2005 and 2021. The non-probability *purposive sampling* method is used in determining samples by the following criteria: (1) The company owns and reports biological assets in the financial statements; and (2) The company publishes an annual report for the relevant year. Based on the sampling criteria, the number of samples used in the study was 24 (twenty-four) agricultural sector companies listed on the IDX. The total number of observational data used for data processing is 216 from 2005-2021.

The type of data used in this study is quantitative data. The data source used is secondary

data in the form of annual reports taken from the official website of each company and/or the official website of the IDX. The measurement scale used is the ratio scale.

This study uses three independent variables, namely the intensity of biological assets, the size of the board of directors, and the accounting expertise of the board of directors. On the other hand, the dependent variable used in this study is the disclosure of biological assets.

The variable disclosure of biological assets indicates the delivery of information that describes the condition and performance of the company, whether financially, non-financially, quantitatively, or qualitatively related to biological assets (Carolina et al., 2020; Kartikasari et al., 2021). There are a total of 40 (forty) disclosure items consisting of 33 (thirty-three) mandatory disclosure items and 7 (seven) voluntary disclosure items. If each item is disclosed in the annual report, it is given a score of 1 (one) and 0 (zero) if not disclosed. The determination of the extent of disclosure is carried out by comparing the total score obtained (n) with the total disclosure according to PSAK No. 69 or expressed by the following Wallace index formula:

$$BAD = \frac{n}{K} \qquad \text{...................} \quad (1)$$

BAD = disclosure of biological assets
n = Total score obtained
K = total disclosures according to PSAK 69

The variable intensity of biological assets reflects the portion of the company's investment in biological assets (Carolina et al., 2020). This variable is calculated based on the sum of the company's biological assets divided by the company's total assets.

$$BAI = \frac{Aset\ Biologis}{Total\ Aset} \qquad \text{..............} \quad (2)$$

BAI = intensity of biological assets

The variable size of the board of directors represents the number of members in the organ of the board of directors (Dey et al., 2020). At the same time, the variable accounting expertise of the board of directors shows the proportion of members who have accounting expertise (Bravo & Alcaide-Ruiz, 2019). Skills can be acquired through education (formal & informal) or/and work experience. The accounting expertise of the board of directors is calculated based on the number of members of the board of directors with an accounting background

divided by the size of the board of directors. The controlling variable in company size is proxied by the logarithm of the company's total assets.

The procedure carried out in data collection is a documentation method. The documentation method is obtaining processes by collecting and studying documents and the necessary secondary data. Secondary data is obtained from the company's annual report from 2005 to 2021.

This study used *multiple regression analysis* with STATA test equipment. The stages of research are as follows: conducting descriptive analysis, testing classical assumptions, testing hypotheses, and drawing conclusions.

This study used descriptive statistical analysis. Descriptive statistics analyzes data by describing or providing information about a phenomenon to make it easier to understand without generalizing (Sugiyono, 2019). This study used maximum value, minimum value, average value, and standard deviation to describe data on biological asset intensity, board size of directors, board of directors accounting expertise, and biological asset disclosure.

The classical assumption test is a test for a regression model so that the model becomes more representative by satisfying existing classical assumptions. The classic assumption tests in this study will be carried out: normality tests and multicollinearity tests.

The normality test is used to test whether the dependent and independent variables in the regression model are normally distributed. In this study, the normality test used the skewness/kurtosis test. According to Ghozali (2018), variables in the regression model can be said to be normally distributed if the value of Prob>chi is more significant than 0.05. A Prob>chi value less than 0.05 indicates that the normality assumption test is not met, meaning the data is not normally distributed.

The multicollinearity test aims to test the correlation between independent variables in the regression model. A good regression model should not correlate with independent variables (Ghozali, 2018). The correlation of multicollinearity can be seen using the value of the Variance Inflation Factor (VIF). If the value of VIF > 10, then multicollinearity occurs; conversely, if the value of VIF < 10, then multicollinearity does not occur.

This study used three hypothesis testing indicators: the F test, t-test, and determination coefficient test. The F test aims to test the feasibility of the regression model of the variables studied. This test can be done by measuring the Prob>F value of the regression results. A regression model is feasible when the Prob>F value is less than 0.05 (Ghozali, 2018).

The t-test aims to test whether the dependent variable affects the independent variable. The t-test uses a significance value. If the significance value < 0.05, then the independent variable affects the dependent variable. In other words, the hypothesis is accepted. If the significance value > 0.05, the independent variable does not affect the dependent variable. In other words, the hypothesis is rejected (Ghozali, 2018).

The coefficient of determination test or *adjusted R^2* aims to measure how much influence the independent variable has on the dependent variable. The value of the coefficient of determination is between the numbers 0 and 1. A *small adjusted R^2* value indicates that the ability of the independent variable to explain the dependent variable is minimal. A value close to one indicates that the independent variables provide almost all the information needed to predict the variation of the dependent variable (Ghozali, 2018). The use of adjusted R^2 is more appropriate than R^2 because R^2 can cause bias caused by increasing independent variables in the study. With every addition of one independent variable to the regression model, the R^2 value increases (Ghozali, 2018). The adjusted R^2 value was used in this study because the increase in the adjusted R^2 value will only be influenced by adding an influential independent variable, so the results are not biased.

Multiple regression analysis shows the direction of the relationship between the independent variable and the dependent variable (Ghozali, 2018). The regression model used in this study is as follows:

$$BAD = \alpha + \beta 1\ BAI + \beta 2 BDSZE + \beta 3 BDEXP + e \ldots (3)$$

BAD = disclosure of biological assets
α = Constanta
β = Regression coefficient of each independent variable
BAI = intensity of biological assets
BDSZE = Board of Directors Size
BDEXP = Board of Directors Accounting Expertise
e = *error*

RESULTS AND DISCUSSION
Result

Table 1. Descriptive Test Results

Variables	Mean	Min	Max	Std. Dev
BAI	0,3514	0,0007	0,7210	0,1628
BDSZE	4,9212	3,000	7,000	1,1111
BDEXP	0,4189	0,1667	0,8000	0,1538
UP	12,772	11,673	13,605	0,4186
BAD	0,3677	0,2750	0,5000	0,0573

Based on Table 1, the minimum value of biological asset intensity of 0.0007 comes from PT Bisi International Tbk (2021), which means 0.07% of the company's assets are biological assets. The maximum value of 0.7210 comes from PT Golden Plantation Tbk (2019), which means 72.10% of the company's assets are biological assets. The mean value of 0.3514 shows that, on average, 35.14% of agricultural company assets in Indonesia are biological assets. The comparison between the mean and standard deviation values shows the characteristics of samples that do not deviate far or are still evenly distributed.

Based on Table 1, it is known that the minimum value of the size of the board of directors of 3 means that the board of directors in a company has three members. A maximum value of 7 means that the company's board of directors has seven members. The mean value of 4.9212 shows that, on average, agricultural companies in Indonesia have a 5-member board of directors. The comparison between the mean and standard deviation values shows that the sample characteristics do not deviate far, and the size of the board of directors in agricultural companies in Indonesia is still evenly distributed.

Based on Table 1, it is known that the minimum value of accounting expertise of the board of directors of 0.1667 comes from PT Astra Agro Lestari Tbk (2007-2016), which means that 16.67% of the company's board of directors have an accounting background. The maximum value of 0.8000 comes from PT PP London Sumatra Indonesia Tbk (2018), which means 80% of the board of directors have an accounting background. The mean value of 0.4189 shows that, on average, 41.89% of the boards of directors of agricultural companies in Indonesia have an accounting background. The comparison between the mean and standard deviation values shows that the sample characteristics do not deviate far, and the accounting expertise of the board of directors in agricultural companies in Indonesia is still evenly distributed.

Table 1 shows that the minimum value of company size is 11,673, and the maximum value is 13,605. The minimum value of 11,673 comes from PT Golden Plantation Tbk (2020), which means that the company is a sample of companies with the smallest total assets. The maximum value of 13,605 comes from PT Smart Tbk (2021), which means that the company is a sample of companies with the most significant total assets. The mean value of 12,772 shows that the average sample of companies is large-sized companies. The comparison between the mean and standard deviation values shows that the sample characteristics do not deviate far, and the size of agricultural companies in Indonesia is still evenly distributed.

Table 1 shows that the minimum value of biological asset disclosure of 0.275 comes from PT Bisi International Tbk (2016-2021), which means that the company only discloses 11 (eleven) items in the biological asset disclosure *checklist*. The maximum value of 0.500 comes from PT Eagle High Plantations Tbk (2018), which means the company discloses 20 (twenty) *checklist items*. The mean value of 0.3677 shows that agricultural companies in Indonesia disclose biological assets by 36.77% or approximately 14 (fourteen) items out of 40 biological asset disclosure checklist items. Of the 14 *items* disclosed, approximately 13 of them are mandatory or mandatory disclosures. The comparison between the mean value and standard deviation shows the characteristics of samples that do not deviate far; in other words, the disclosure of biological assets in Indonesia tends to be evenly distributed.

Table 2. Normality Test Results

Keterangan	Sig
Prob>chi	0,0703

Table 2 shows a significance value of 0.0703. A significance value of > 0.05 means that the distribution of residual data is normally distributed and can be used to predict the disclosure of biological assets.

Table 3. Multicollinearity Test Results

Keterangan	VIF
BAI	1,33
BDSZE	1,27
BDEXP	1,15
UP	1,48

Table 3 shows that the vif value of the variables of biological asset intensity, board size of directors, and accounting expertise of the board of directors is below 10. In other words, the symptoms of multicollinearity do not occur between independent variables.

Table 4. F Test Results

Keterangan	Sig
Prob>F	0,0000

Table 4 shows a significance value of 0.0000, meaning the research model is feasible.

Table 5. Result of Adjusted R²

Adjusted R²
0,6386

Table 5 shows an adjusted R2 value of 0.6386 or 63.86%. This means that the variables of biological asset intensity, the size of the board of directors, and the accounting expertise of the board of directors can explain the variable disclosure of biological assets by 63.86%. Other variables outside the model explain the remaining 36.14%.

Table 6. Test Results t

Items	Koef.	Sig.	Result
Constant	-0,060		
BAI	0,110	0,000	Accepted
BDSZE	0,007	0,003	Accepted
BDEXP	0,233	0,000	Accepted

Hypothesis 1 (H1) aims to test whether the variable intensity of biological assets positively affects the disclosure of biological assets. Table 6 shows that the variable intensity of biological assets has a regression coefficient value of 0.110 with a significance level of 0.000. This means that the variable intensity of biological assets positively influences the disclosure of biological assets. Thus, H1 was accepted in this study.

Hypothesis 2 (H2) aims to test whether the board size variable positively affects the disclosure of biological assets. Based on Table 6, it is known that the size variable of the board of directors has a regression coefficient value of 0.007 with a significance level of 0.003. This means that the board of directors's variable size positively influences the disclosure of biological assets. Thus, H2 was accepted in this study.

Hypothesis 3 (H3) aims to test whether the board of directors' accounting expertise variable positively affects the disclosure of biological assets. Table 6 shows that the accounting expertise variable of the board of directors has a regression coefficient value of 0.233 with a significance level of 0.000. This means that the board of directors' variable expertise positively influences biological asset disclosure. Thus, H3 was accepted in this study.

Based on Table 6, the regression equation is obtained as follows:

$$BAD = -0,060 + 0,110\ BAI + 0,007BDSZE + 0,233BDEXP + e \quad \dots\dots\dots\dots\dots\dots\ (4)$$

A constant value of -0.060 means that if the variables of biological asset intensity, the board size, and the board of directors' accounting expertise are 0 (zero), then the disclosure of biological assets is -0.060. The value of the biological asset intensity coefficient is 0.110, the size of the board of directors is 0.007, and the accounting expertise of the board of directors is 0.233. The figure shows a positive direction from biological asset intensity, the board size, and the board of directors' accounting expertise toward biological asset disclosure.

Discussion

The results of hypothesis 1 testing state that there is a positive influence between the intensity of biological assets and the disclosure of biological assets, so H1 in this study is accepted. The ownership of biological assets will affect the high or low level of biological asset information disclosed. These findings align with those of Nikmah et al. (2022) and Carolina et al. (2020).

Stakeholder *theory* states that other parties have an impact on the sustainability of a company. In this case, investors are providers of capital injections or funds so that the company can grow, one of which is through investment in biological assets. Investors deserve to know how their funds are being used or allocated. In addition, biological assets are generally also used as loan collateral, so their disclosure will be a concern for many parties. Therefore, when biological assets increase, it is the same as increasing corporate responsibility to *stakeholders* by reporting more information related to biological assets.

This finding is also supported by the observational data results where higher disclosure completeness is found in companies with high or dominant intensity. PT Golden Plantation Tbk, with an intensity of 0.721, is proven to have a complete disclosure of 0.475 (47.5%). Meanwhile, companies

with low intensity tend to make limited disclosures, for example, PT Bisi International Tbk, which only has a biological asset intensity of 0.0007 and completeness of disclosure of 0.275 (27.5%).

The results of hypothesis 2 testing stated that there was a positive influence between the size of the board of directors and the disclosure of biological assets, so H2 in this study was accepted. That is, the more members of the board of directors, the higher the disclosure of biological assets.

In line with *stakeholder* theory, the large size of the board demonstrates the company's commitment to providing disclosure and transparency to stakeholders (Bae et al., 2018). This pressure encourages the board to disclose more information related to biological assets and ensure that stakeholders' interests are considered. These findings align with research (Dey et al., 2020), which states board *size* positively influences *forward-looking disclosure*.

The results of the descriptive analysis also support the results of the study that the mean value of the size of the board of directors in Indonesian agricultural companies is 4.92, and the average agricultural company in Indonesia has disclosed 36.7% of the total 40 (forty) *biological asset disclosure* checklist items.

The results of hypothesis 3 testing stated that there was a positive influence between the accounting expertise of the board of directors and the disclosure of biological assets so that H3 in this study was accepted. That is, the higher the number of board of directors members with accounting backgrounds in the company, the higher the disclosure of biological assets. Similar results were also found in the study (Bravo & Alcaide-Ruiz, 2019)

In line with *stakeholder theory*, the presence of a board with accounting expertise also adds to the heterogeneity of directors to better ensure that various *stakeholder* interests are considered in decision-making related to information disclosure. The board with accounting expertise knows the biological asset reporting rules set by regulators and is more aware of what biological asset information must be disclosed by the company.

The descriptive analysis results also support the study's results that the mean value of expertise of the board of directors in agricultural companies in Indonesia is 0.418. This means that, on average 41.89% of the boards of directors of agricultural companies in Indonesia have an accounting background. Meanwhile, the average agricultural company in Indonesia has disclosed biological assets by 36.7% or about 14 of the total 40 *biological*

asset disclosure checklist items, and of the 14 items disclosed, around 13 of them are mandatory disclosures.

CONCLUSION

The findings indicated that the intensity of biological assets and their disclosure have a beneficial relationship. Increased disclosure of biological assets will follow an increase in the intensity of biological assets. Second, the disclosure of biological assets and the size of the board of directors have a beneficial relationship. Companies will be encouraged to increase the disclosure of their biological assets by an increasing number of board members. Third, biological asset disclosure and the board's accounting experience have a beneficial relationship. Increasing the number of board of directors members with accounting expertise will result in a higher level of biological asset disclosure. The study's findings add to our understanding of the factors influencing biological asset declaration, particularly in the field of accounting science. The degree of biological assets, the size of the board of directors, and the board's accounting knowledge are among the variables that have been demonstrated to have an impact. As a result, the disclosure of biological assets can be directly influenced by all three of these variables. The results of the investigation support stakeholder theory as well.

The limitations faced by researchers in this study are limitations in accessing data in the form of company annual reports, especially for years before 2012. This is because some companies only publish annual reports for the last 10 (ten) years on their official website. Future research can add other variables beyond the research model, such as gender diversity and board age, either the board of directors or/and the board of commissioners. Future research can also expand the research sample by adding data on agricultural companies in other countries adopting *IAS 41 Agriculture*, such as Malaysia or Thailand.

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