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Earnings quality before and after the implementation of PSAK 69

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CHRONICLE	A B S T R A C T	

Article history: Received: November 28, 2020 Received in revised format: December 28 2020 Accepted: February 7, 2021 Available online: February 7, 2021 Keywords: Agriculture Earnings quality Earnings response coefficient PSAK 69 Agriculture regulates the accounting treatment of agricultural activities in Indonesia. The measurement of biological assets is the most important part of the arrangement of PSAK 69. PSAK 69 deals with biological assets measured at fair value less costs to sell at the beginning and end of the reporting period. Characteristics of growing biological assets will have an impact on the growth in fair value of assets, so there will be differences in fair value at the beginning and end of the financial reporting period. The difference in fair value of biological assets, whether realized or not, is recognized as gain in the current period. This will have an impact on the quality of the company's earnings. This study aims to examine differences in earnings quality before and after the implementation of PSAK 69 in agricultural sector companies listed on the Indonesia Stock Exchange. The research was conducted on 14 agricultural companies listed on the Indonesia Stock Exchange in the 2016-2019 observation period. Earnings quality is measured by the earnings response coefficient. Earnings response coefficients are estimated using the firm specific coefficient model (FSCM) and pooled cross-sectional regression model (CSRM) methods. This study measures the quality of earnings before and after the application of PSAK 69. The quality of earnings before and after the application of PSAK 69 is tested by a paired two-sample t-test. The results of this study found no difference in earnings quality before and after the application of PSAK 69.

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1. Introduction

All efforts are made by accounting standards setting organizations, including the Financial Accounting Standards Board, to improve the quality of financial reports, especially profits. One of the efforts made to improve the quality of financial reports in the agricultural sector is the issuance of PSAK 69 on the accounting treatment of agricultural businesses. PSAK 69 provides accounting arrangements that include the recognition, measurement and disclosure of accounting for agricultural activities. PSAK 69 provides that the biological assets of agricultural activities are recognized when they meet the same criteria as the recognition of assets. Assets for agricultural activities are measured at the beginning and end of the financial reporting period at fair value less costs to sell. Gains or losses arising from changes in fair value are recognized in profit or loss in the period in which they occur. Basically PSAK 69 on agriculture uses fair value in measuring agricultural activity assets. The unique characteristics of agricultural assets (e.g., crops and livestock) are (1) the increase in asset value through the growth process and (2) income is associated with the growth of assets at the time of sale. The consequence of the characteristics of agricultural activities is that it is difficult to apply historical cost measurement because (1) it does not show the true value of the asset, (2) the carrying value of the asset does not reflect the quality of the asset, (3) the allocation of the arbitrator's costs (such as the * Corresponding author.

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amortization of costs for the accumulated costs and the allocation between products sold and not sold), (4) agricultural assets in the form of long-lived assets (such as timber trees and oil palm) and short-lived assets (such as poultry and rice crops). The application of fair value in measuring agricultural activity assets is expected to improve the quality of financial information presented in financial reports, including earnings quality. This study will examine the impact of the application of PSAK 69 on the quality of earnings of companies listed on the Indonesia Stock Exchange engaged in the agricultural sector. The impact of the application of PSAK 69 on earnings quality can be done by comparing the quality of earnings before and after the application of PSAK 69 which became effective starting January 1, 2018. Empirical research related to the impact of the application of PSAK 69 on earnings quality has never been carried out in Indonesia. Previous theoretical studies are Pratiwi (2017), Kurniawan, Mulawarman, & Kamayanti (2014), and Ariyanto, Sukendar, & Kurniawati (2014). The study of the application of accounting treatment in the agricultural sector, namely International Accounting Standard (IAS) 41 in countries other than Indonesia was conducted by several researchers Feleagă, Feleagă, & Răileanu (2012), Huffman AA (2013), Silva, Nardi, & Ribeiro (2015), Fischer & Marsh (2013), and Argile's & Slof (2001). This study is different from previous empirical research that examined the impact of applying IAS 41 on value relevance (Huffman A., 2014; Huffman A., 2013), and earnings management (Silva, Nardi, & Ribeiro, 2015).

2. Earning Quality Before and After the Implementation of PSAK 69

Indonesia is known as an agricultural country because it is supported by a tropical climate, fertile land, and is surrounded by volcanic mountains. This condition supports agricultural activities carried out by the majority of Indonesians, such as agriculture, plantations and livestock. Agricultural, plantation and livestock activities have unique characteristics. Biological assets owned by agricultural, plantation and livestock activities, such as trees and livestock, will grow. The growth of this asset will be related to the value of the dialogue asset, the value of the asset will continue to grow with the passage of time. The treatment of biological assets in Indonesia is regulated in the Statement of Financial Accounting Standards (PSAK) 69 on agriculture (IAI, 2016). PSAK 69 regulates agricultural accounting treatment which is effective since January 1, 2018. PSAK 69 Agriculture fully adopts the regulations in the International Accounting Standards (IAS) 41 Agriculture published by the International Accounting Standards Board (IASB). The discussion in PSAK 69 Agriculture, including recognition and measurement, government grants, and disclosures. PSAK 69 Agriculture regulates (1) biological assets except productive plants, (2) agricultural products at the point of harvest, and (3) government grants covering biological assets. One of the important arrangements in PSAK 69 is the measurement of biological assets. Biological assets are measured at initial recognition and at the end of each reporting period at fair value less costs to sell, unless fair value cannot be measured reliably. The measurement of biological assets at fair value is in accordance with IAS 41 which has been effectively implemented since January 1, 2016. However, IAS 41 cannot be quickly adopted into PSAK 69. This is due to the view that the use of fair value to measure biological assets is less relevant, effective, and perfect compared to the cost (Pratiwi, 2017). One researcher revealed that the use of fair value resulted in the recognition of unrealized gains / losses in the income statement due to changes in fair value less costs to sell which resulted in volatility in company performance (Herbohn & Herbohn, 2006). MASB (Malaysia Accounting Standards Board) is one of the institutions that proposed the IASB to revise IAS 41 Agriculture. After IAS 41 was revised, the Financial Accounting Standards Board (DSAK) followed up by adopting IAS 41 Agriculture to become PSAK 69 Agriculture which became effective on January 1, 2018.

PSAK 69 Agriculture regulates the accounting treatment of agricultural activities in Indonesia. The measurement of biological assets is the most important part of the arrangement of PSAK 69. PSAK 69 deals with biological assets measured at fair value less costs to sell at the beginning and end of the reporting period. The characteristics of growing biological assets will have an impact on the growth in fair value of assets, so that there will be differences in fair value at the beginning and end of the financial reporting period. The difference in fair value of biological assets, whether realized or not, is recognized as gain in the current period. This will have an impact on the quality of the company's earnings. The recognition of the gain or loss on the difference in fair value less cost of sales at the beginning and end of the reporting period results in volatility in earnings (Herbohn & Herbohn, 2006). Profits that have high volatility do not meet the characteristics of quality earnings because they result in less persistent earnings. Less persistent earnings reduce the benefits of earnings in estimating firm value and an indication of the company's future performance. This has sparked controversy over the adoption of IAS 41 Agriculture to become PSAK 69 in Indonesia, because the application of fair value will trigger the volatility of company profits. The application of fair value in accounting standards to value company assets will have an impact on financial statements (Huffman A., 2014; Huffman AA, 2013; Silva, Nardi, & Ribeiro, 2015; Fischer & Marsh, 2013; Markou & Tsitsoni, 2013; Feleagă, Feleagă, & Răileanu, 2012; Bozzolan, Laghi, & Mattei, 2016). The application of fair value to accounting standards occurs to increase comparability of financial statements, but will result in earnings volatility and subjective judgment in choosing a discount rate to evaluate biological assets (Feleagă, Feleagă, & Răileanu, 2012). However, Maruli and Farahmita (2011), Argiles, Bladón, & Monllau (2009) did not find the impact of fair value application on earnings volatility and income smoothing practices. The use of market value in estimating the fair value of biological assets creates problems when the market value of the assets is unknown (Pratiwi, 2017). This occurs because the asset does not have an active market, so the present value of cash flows is used instead. The

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computation of the present value of cash flows involves choosing a management desker at the discount rate to be used which affects the quality of financial information. The choice of the discount rate by management indicates the existence of earnings management practices (Silva, Nardi, & Ribeiro, 2015). Earnings management is associated with low earnings quality. Gains or losses arising from the application of fair value in asset valuation in the banking sector result in a decrease in the quality of company earnings (Sodan, 2015). However, Markou & Tsitsoni (2013) found that the application of the fair value method to value assets improves the quality of company earnings. The results of a survey conducted by Markou & Tsitsoni (2013) show that the application of fair value in the International Financial Reporting Standards (IFRS) does not reduce the quality of financial reports, and fair value increases the reliability and accuracy of financial information that supports decision making. Based on the results of several studies, the following research hypothesis can be formulated.

H₁: There are differences in earnings quality before and after the application of PSAK 69.

3. Research methods

This research is motivated by the publication of PSAK 69 on agriculture. PSAK 69 adopts IAS 41 regarding the accounting treatment of agricultural activities. PSAK 69 requires the application of fair value less selling costs to account for biological assets. The application of fair value will affect the quality of earnings, because the difference between the beginning and ending values of biological assets is recognized as profit for the period. Researchers responded to this fair value application (Feleagă, Feleagă, & Răileanu, 2012). The study population was all agricultural sector companies listed on the Indonesia Stock Exchange in 2016, 2017, 2018, and 2019. The research sample was a saturated sample, namely the entire study population. This study uses secondary data in the form of financial reports, agricultural sector stock price index, and stock market prices. This study requires quarterly financial reports of all agricultural sector companies listed on the IDX for the period 2016 to 2019. The financial statements provide the data needed in this study, namely quarterly net income which is used to calculate unexpected earnings. This study requires stock market prices and agricultural sector stock price indexes around quarterly earnings announcements to calculate abnormal returns. The variables of this study include cumulative abnormal return (CAR), unexpected earnings (UE) and earnings quality. This research uses the event study method. The event study analyzes the CAR around the announcement date of the annual financial statements. This study measures the two-day abnormal return around the announcement date and on the announcement date (t-2, t, t+2). Abnormal return shows the market's response to an event. Abnormal return is the advantage of return that actually occurs on normal return. Abnormal returns are calculated by subtracting the actual return from the expected return as follows. $AR_{i,t} = R_{i,t} - E [R_{i,t}]$

In this case:

 $AR_{i,t}$ = the abnormal return of the i-th security in the event period t

 $R_{i,t}$ = The actual return of the i-th security in the event period t

 $E[R_{i,t}]$ = The expected return of the i-th security in the event period t

Expected returns are estimated using market models. The expectation model is formed by using a regression technique with the equation:

 $R_{i,j} = \alpha_i + \beta_i \cdot RM_j + \varepsilon_{i,j}$

In this case:

 R_i = is the return of security *i* in the jth estimation period

 α_i = securities intercept *i*

 β_i = beta securities *i*

 RM_j = is the market index return in the jth estimation period

CAR around the event period is obtained by adding up firm i's abnormal return during the window period. Use of short window periods because investors will react quickly to information that has economic value. Unexpected earnings (EU) is the difference between actual profit and expected profit. The expected profit is estimated using the random walk model. The random step model estimates the current period's profit to be the same as the previous period's profit. The unexpected earnings is calculated by the following equation.

$$UE_{it} = \frac{E_{it} - E_{i,t-1}}{\left| E_{i,t-1} \right|}$$

In this case:

 $UE_{it} =$ company i's unexpected earnings in period t $E_{it} =$ accounting earnings for company *i* in period t $E_{it-1} =$ accounting earnings of company *i* in period t-1 Earnings quality can be measured by the earnings response coefficient. The earnings response coefficient is a market-based measure. We use the earnings response coefficient because the earnings response coefficient measures earnings directly capturing the decision usefulness of earnings (Liu & Sun, 2015). The earnings response coefficient measures the effect of one rupiah shock earnings on stock abnormal returns and is measured as a slop in the regression of stock abnormal returns and unexpected earnings (Cho & Jung, 1991). Measuring the earnings response coefficient can be estimated using two approaches, namely the firm specific coefficient methodology (FSCM) and the pooled cross-sectional coefficient method (CRSM). This study uses FSCM as a method of measuring earnings quality and CRSM for sensitivity analysis. FSCM estimates the earnings response coefficient using time series data regression models ((Dechow & Schrand, 2004; Dichev et al., 2012; Teets & Wasley, 1996; Suwardjono, 1997; Suaryana, 2006). The earnings response coefficient is estimated by the following equation.

$$CAR_{it} = \gamma_0 + \gamma_1 UE_{it} + \varepsilon_r$$

In this case:

 CAR_{it} = Company i's abnormal return in period t is caused by the earnings announcement event.

 UE_{it} = unexpected earnings for company i on earnings announcements.

The equation above is estimated for each company based on the quarterly data time series. $\gamma 1$ is the earnings response coefficient estimated by FSCM. Earnings response coefficients are estimated for each company, before and after the application of PSAK 69. Earnings response coefficients are then grouped into two groups, namely before and after the application of PSAK 69. Differences in earnings response coefficients between the two groups were tested using a paired sample *t* test. This study conducted a sensitivity analysis to ascertain the impact of the application of PSAK 69 on earnings quality. The sensitivity analysis estimates the coefficient of earnings response using the CRSM approach (Suaryana, 2006). CRSM estimates earnings quality by developing a pooled cross-sectional data interaction regression model (Suwardjono, 1997; Imhoff & Lobo, 1992).

$$CAR_{it} = \beta_0 + \beta_1 UE_{i,t} + \beta_2 PSAK69 \times UE_{i,t} + \beta_3 KOMITE_{i,t} + \varepsilon_{it}$$

In this case:

CAR _{it}	= Company i abnormal return caused by the earnings announcement event.
UE _{it}	= unexpected earnings for company i on earnings announcements.
PSAK69	= dummy variable (1 if the company applies PSAK 69, 0 if the company has not implemented PSAK 69).

The equation above is estimated using the company's quarterly panel data. The difference in earnings quality before and after the application of PSAK 69 is shown by

coefficient β_2 . Earning quality before and after the implementation of PSAK 69 is different if the coefficient β_2 is statistically different from 0.

4. Results and Discussion

The population of this study is public companies listed in the LQ45 company list. The study population is all agricultural sector companies listed on the Indonesia Stock Exchange in 2016, 2017, 2018 and 2019. The research sample is a saturated sample, namely the entire study populations. The research sample is all study population. The number of agricultural industrial companies in each period was 14 companies. The research variable is earnings quality. Earnings quality is measured by the earnings response coefficient. The earnings response coefficient is estimated using two approaches, namely FSCM and CRSM. The descriptive statistics of earnings response coefficients with the FSCM model are reported in Table 1.

Table 1

Descriptive Statistics of Profit Response Coefficient for the Periods Before and After PSAK 69 Implementation

Period	Number of Sample	Minimum Value	Maximum Value	Median	Mean	Standard Deviation
Before	14	-0.010	0.010	0.0015	-0.0004	0.0065
After	14	-0.260	0.260	0.0010	0.0210	0.1255
					Source: Secondary	data processed 2020

Source: Secondary data processed, 2020

The maximum value of the earnings response coefficient before the application of PSAK 69 was 0.010, while the minimum value of the earnings response coefficient before the application of PSAK 69 was -0.010. The median, mean, standard deviation, and kurtosis of the earnings response coefficient before the application of PSAK 69 were 0.0015, -0.0042, 0.0065, and 0.363, respectively. The average value of the earnings response coefficient of -0.0042 means that the unexpected earnings (EU) of 1 rupiah was responded to by investors of -0.0042 or 0.42% abnormal return. Kurtosis value of 0.063 shows the earnings response

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coefficient data is normally distributed. The maximum value of the earnings response coefficient after the application of PSAK 69 is -0.260. The median, mean, standard deviation, and kurtosis of the earnings response coefficient after the application of PSAK 69 are 0.0010, 0.0210, 0.1255, and 1.567, respectively. The average value of the earnings response coefficient of 0.0210 means that the investor response (UE) of 1 rupiah is responded to by the investor of 0.0210 or 2.10% abnormal return. Kurtosis value of 1.567 shows the earnings response coefficient after the application of PSAK 69 are 0.0012, no provide the earnings response coefficient of 0.0210 means that the investor response (UE) of 1 rupiah is responded to by the investor of 0.0210 or 2.10% abnormal return. Kurtosis value of 1.567 shows the earnings response coefficient data is normally distributed. The average value of the earnings response coefficient after the application of PSAK 69. This shows that in general agricultural industrial companies listed on the Indonesia Stock Exchange have better earnings quality after implementing PSAK 69. PSAK 69. Table 2 reports descriptive statistics of variable shock earnings (EU) and cumulative abnormal return (CAR) in the period 2016 to 2019. Unexpected earnings is calculated from quarterly profits reported by 14 companies in the agricultural industry. The number of observations for each company was 16 observations, so the number of observations from 14 companies was 224 observations.

Table 2

Descriptive Statis	stics of EU and	CAR Variables				
Variable	Number Sample	Minimum Value	Maximum Value	Median	Mean	Standard Deviation
UE	224	-251,752.000	39,978.000	-350.000	-2,944.821	24,048.283
CAR	224	-948.000	377.000	-7.500	-7.991	101.873
					Source: Secondary	data processed, 2020

The maximum value for the EU is 39,978, while the minimum value for the EU is -251,752. The median, mean, and standard deviation of the EU coefficient are 350, -2,944,821, and 24,048,283, respectively. The maximum CAR value is 377, while the minimum CAR value is -948. The median, mean, and standard deviation of the EU coefficient are -7,500, -7,991, and 101,873, respectively. Two different tests mean paired samples were used to test the research hypothesis. The test was conducted to test the differences between 14 companies' ERC pairs before and after the application of PSAK 69. This test was chosen because the Kolmogorof-Smirnov test concluded that the ERC sample distribution before and after the application of PSAK 69 was normally distributed.

Table 3

Test Results for the Mean Difference of Two Paired Samples

		Paired Differences			t	df	Sig. (2-tailed)	
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
			meun	-				
				Lower	Upper			
ERC before - ERC_after	0.02143	0.12869	0.03439	-0.05288	0.09573	0.623	13	0.544
							Source: pro	ocessed data, 2020

The results of the two-difference test of the paired sample mean in Table 3 show that the ERC average difference before and after the application of PSAK 69 is 0.02143. The average ERC after the application of PSAK 69 is greater than before the application of PSAK 69, however, the difference in ERC after the application of PSAK 69 is not significant. This is indicated by the t value of 0.623 and a significance of 0.544. The significance value is smaller than α of 0.05. The test results of two different paired samples mean that there is no difference in earnings quality before and according to the application of PSAK 69. The research sensitivity test used the pooled cross-sectional regression method (CRSM). CRSM tests the difference in the average ERC before and after the application of PSAK 69 by developing interaction regressions. The interaction regression model uses panel data of 14 companies for 16 quarters, so that the number of observations is 224. The results of CRSM analysis to prove the difference in ERC in the periods before and after the application of PSAK 69 can be seen in Table 3. The CRSM model is developed from regression of the unexpected earnings free variable (UE), the dummy for the period before the implementation of PSAK 69 and after the implementation of PSAK 69 (PSAK69), as well as the interaction variable of unexpected earnings and dummy earnings (PSAK 69 x UE) with cumulative abnormal return (CAR).

Table 4

CRSM Analysis Results

Variable Independen	Regression Coefficient	t	Significance
Unexpected Earnings (UE)	0,000	2.198	0.029**
Dummy Period (PSAK 69)	0,007	-3.239	0.001*
$PSAK69 \times UE$	0,000	-0.552	0.581

Source: processed data, 2020

Note: $\hat{CAR}_{it} = \beta_0 + \beta_1 UE_{i,t} + \beta_2 PSAK69 \times UE_{i,t} + \beta_3 PSAK69_{i,t} + \varepsilon_{it}$

where, CAR_{ii} = Company *i* abnormal return caused by the earnings announcement event, UE_{ii} = unexpected earnings for company *i* on earnings announcement, PSAK69 = dummy variable (1 if the company applies PSAK 69, 0 if the company has not implemented PSAK 69).

***, **, and * demonstrated significance at the 1 percent, 5 percent, and 10 percent levels, respectively (two-tailed test)

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The difference in ERC in CRSM analysis can be determined by the significance of the regression coefficient of the interaction variable PSAK69 x UEi, t. The regression coefficient of the interaction variable PSAK69 × UEi, t is 0.000 with a t value of -0.552 and a significance value of 0.581. The significance value of 0.581 is smaller than 0.05, so the results of the analysis prove that there is no significant difference between the ERC before and after the application of PSAK 69. The results of the CRSM analysis support the results of the FSCM analysis. However, the CRSM analysis results in Table 4 show that the EU regression coefficient is 0.007 and a significance value of 0.029. The significance value is smaller than 0.05, this result shows that investors respond positively to unexpected earnings in the periods before and after the application of PSAK69. PSAK 69 uses fair value in measuring agricultural activity assets. The application of this PSAK is expected to improve the quality of financial reports. And profit quality. The unique characteristics of agricultural assets are (1) the increase in asset value through a growth process and (2) income is associated with the growth of assets at the time of sale. The consequence of the characteristics of agricultural activity is that it is difficult to apply historical cost measurement because (1) does not show the true value of assets, (2) the carrying value of assets does not reflect asset quality, (3) allocation of arbitrator costs (such as the amortization of costs for the accumulated costs and the allocation between products sold and not sold), (4) assets in the form of long-lived assets (such as timber trees and oil palm) and short-lived assets (such as poultry and rice crops). The results of hypothesis testing with FSCM and CRSM do not support the hypothesis, there are differences in earnings quality before and after the application of PSAK 69. The results of this study do not support the results of previous studies which prove that the application of fair value in accounting standards to assess company assets will have an impact on financial statements (Pratiwi, 2017; Huffman, 2014; Huffman, 2013; Silva et al., 2015; Fischer & Marsh, 2013; Markou & Tsitsoni, 2013; Feleagă et al., 2012). The findings of this study do not match the expectations of the application of PSAK 69, namely improving the quality of corporate financial reports. Statistically, there is no change in the earnings quality before and after the application of PSAK 69.

PSAK 69 Agriculture regulates the accounting treatment of agricultural activities in Indonesia. PSAK 69 provides that biological assets are measured at fair value less costs to sell at the beginning and end of the reporting period. The characteristics of a growing biological asset will have an impact on the growth in the fair value of the assets presented in the statement of financial position. Generally, the fair value of biological assets will increase during the financial reporting period, so there will be differences in fair value at the beginning and end of the financial reporting period. The difference in fair value of biological assets, whether realized or not, is recognized as gain in the current financial reporting period. The adoption of PSAK 69 will have an impact on the presentation of the value of biological assets and earnings in the financial statements. Prior to the application of PSAK 69, the value of biological assets was stated at cost, after the application of PSAK 69 the value of biological assets was reported at fair value. The characteristics of biological assets that grow, so the fair value of biological assets will increase with the passage of time. The increase in fair value is recognized as a gain in the current period, even though the assets have not been realized. This study did not find an increase in the quality of earnings after the application of PSAK 69. The conceptual fair value approach should have added value to the financial statements, but in reality, it can cause several problems (Penman, 2007). The application of fair value in presenting the value of biological assets and recognition of gains on the value of biological assets has no impact on earnings quality. The findings of this study are in line with the research of Elad and Herbohn (2011) regarding the implementation of IAS 41. First, various variations of the fair value model that are applied to assess biological assets have an impact on the quality of company earnings in the agricultural sector. Second, the application of fair value is perceived by respondents to increase earnings volatility. Third, the fair value of commodities in developing countries is determined by commodity market authorities, which does not reflect the fair value of commodities.

The application of PSAK 69 is related to the concept of accretion. Biological assets are valued at fair value less selling costs, and are presented as gain or loss in the reporting period. The gain or loss is recognized together with the income from the growth of biological assets. This treatment is applied equally to all biological assets owned by the company, resulting in misleading information for users of financial statements. Biological assets are divided into two groups, biological assets that are harvested and the results are sold, and biological assets that are not harvested and the results are sold. Biological acids that are stored and sold can be divided into two groups, namely biological agents harvested for less than one year and biological estes that are harvested for more than one year. The application of fair value is more appropriate in assessing biological assets that are harvested and sold biological assets that can be harvested after being more than one year old. Biological assets that are not harvested and sold, such as oil palm which produces oil palm fruit, chickens that produce eggs, and cows that produce milk should be treated as tangible fixed assets. Accounting for biological assets that are not harvested and sold when they are not yet productive because they have not reached productive age, such as oil palm trees that have not yet produced palm fruit, should be treated the same as fixed assets in the construction process. Biological assets harvested and sold at less than one year of age are treated the same as inventories. Biolos assets that have not been harvested should be treated the same as inventories in the production process. The application of PSAK 69 to all types of biological assets, without considering the types of biological assets, will not have an impact on the quality of company earnings. The application of PSAK 69 to biological assets which are not harvested and sold assets will reduce the quality of financial statements including the quality of earnings. The application of PSAK 69 will improve the quality of profits on biological assets that are harvested and sold and have a harvest age of more than one year.

5. Conclusion

PSAK 69 provides for accounting recognition for biological assets. This PSAK came into effect on January 1, 2018. The implementation of PSAK 69 aims to improve the quality of financial information reported by companies. This study aims to examine differences in earnings quality before the application of PSAK 69. The results of the study do not find differences in earnings quality before and after the application of PSAK 69. The application of PSAK 69 does not improve investors' perceptions of the quality of company earnings. Two methods used in this study, namely FSCM and CRSM, gave uniform results that there was no difference in earnings quality before and after the adoption of PSAK 69 is two years or eight quarters, respectively. This period is relatively short because it uses the FSCM method to estimate the ERC of each period. Future studies are expected to use a longer period in order to obtain a better ERC estimate. ERC is estimated using quarterly earnings data. Profits for the first quarter, second quarter, third quarter have a different quality from the fourth quarter profit. The fourth quarter financial statements have been audited by the public accounting firm, while the first, second, and third quarter financial reports have not been audited. The use of quarterly reports in this study is to increase the number of observations in a relatively short period. Further research is expected to increase the observation period and use annual data to obtain financial reports that have been audited by the Public Accounting Firm.

Future studies should classify agricultural companies based on the types of biological assets they have, such as biological assets that are harvested and sold, and biological assets that are not stored and not sold. This study aims to determine the differences in earnings quality from the application of PSAK 69 in two groups of agricultural companies.

References

- Argile's, J. M., & Slof, E., J. (2001). New opportunities for farm accounting. The European Accounting Review 10(2), 361–383. Argiles, J. M, Bladón, J., & Monllau, T. (2009). Fair Value Versus Historic Cost Valuation for Biological Assets: Implication
- for The Quality of Financial Information. Documents De Treball, De La Facultat D'Economia I Empresa (2009), 1-16.
- Ariyanto, S., Sukendar, H., & Kurniawati, H. (2014). Penerapan PSAK Adopsi IAS 41 Agriculture. Binus Business Review, 5(1), 186-193.
- Bozzolan, S., Laghi, E., & Mattei, M. (2016). Amendments to the IAS 41 and IAS 16-implications for accounting of bearer plants. *Agricultural Economics*, 62(4), 160-166.
- Cho, J., & Jung, K. (1991). Earnings Response Coefficients: A Synthesis of Theory and Empirical Evidence. Journal of Accounting Literature, 10, 85—116.
- Dechow, P., & Schrand, C. (2004). Earnings quality. CFA Institute.
- Dichev, I., Graham, J., & Rajgopal, S. (2012). Earnings Quality.
- Feleagă, L., Feleagă, N., & Răileanu, V. (2012). IAS 41 Implementation Challenges The Case of Romania. World Academy of Science, Engineering and Technology International Journal of Economics and Management Engineering, 6(3), 317-320.
- Fischer, M., & Marsh, T. (2013). Biological Assets: Financial Recognition and Reporting Using US and International Accounting Guidance . Journal of Accounting and Finance 13(2), 57-74.
- Francis, J., Olsson, P., & Schipper, K. (2008). Earnings Quality. Hanover: Now Publishers Inc.
- Herbohn, K., & Herbohn, J. (2006). International accounting standard (IAS) 41: What are the implications for reporting forest assets? Small-scale Forest Economics, Management and Policy 5(2), 175–189.
- Huffman, A. (2014). *Matching Measurement to Asset Use: Evidence from IAS 41*. New Orleans: A.B. Freeman School of Business Tulane Universit.
- Huffman, A. A. (2013). Value relevant asset measurement and asset use: Evidence from IAS 41. Utah: David Eccles School of Business University of Utah.
- IAI. (2016). Pernyataan Standar Akuntansi Keuangan 69: Agrikultur. Jakarta: Ikatan Akuntan Indonesia.
- IASB. (2018). Conceptual Framework For Financial Reporting.
- Imhoff, E., & Lobo, G. (1992). The Effect of Ex-Ante Earnings Uncertainty on Earnings Response Coefficients. *Journal of Accounting and Economics* 67 (April), 427-439.
- Kurniawan, R., Mulawarman, A. D., Kamayanti, A. (2014). Biological assets valuation reconstruction: A critical study of IAS 41 on agricultural accounting in Indonesian farmers. *Procedia - Social and Behavioral Sciences 164*, 68 – 75
- Liu, G., & Sun, J. (2015). Did the mandatory adoption of IFRS affect the earnings quality of Canadian firms?. Accounting Perspectives, 14(3), 250-275.
- Markou, D., & Tsitsoni, F. (2013). Fair Value Accounting and Earnings Quality: Listed Real Estate Companies in Sweden . Karlstad: Karlstad Bussiness School.
- Maruli, S, & Farahmita, A. (2011). The Analysis Of Application Of Fair Value And Historical Cost Approaches In The Valuation Of Biological Assets In The Agricultural Companies. *Asia Pacific Journal of Accounting and Finance*, 1(2), 133-149.

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- Penman, S. H. (2007). Financial reporting quality: is fair value a plus or a minus?. *Accounting and Business Research*, 37(sup1), 33-44.
- Pratiwi, W. (2017). Analisis Perlakuan Akuntansi Aset Biologis Berbasis PSAK 69 Agrikultur pada PT Perkebunan Nusantra XII Kalisanen Kabupaten Jember. Seminar Nasional dan Call For Paper Ekonomi dan Bisnis 2017, (pp. 140-150). Jember.
- Silva, R. L., Nardi, P. C., & Ribeiro, M. d. (2015). Earnings Management and Valuation of Biological Assets. BBR, Vitória 12(4), 1-26. https://doi.org/10.15728/bbr.2015.12.4.1
- Šodan, S. (2015). The impact of fair value accounting on earnings quality in eastern European countries. *Procedia Economics* and Finance, 32, 1769 1786.
- Suaryana, A. (2006). Pengaruh Komite Audit terhadap Kualitas Laba. AUDI Jurnal Akuntansi dan Bisnis, 1-21.
- Suwardjono. (1997). The Impact of Accounting Methods on The Association Between Unexpected Earnings and Abnormal Returns: The Case of Oil and Gas Industry. Kentucky: Kent State University.
- Teets, W., & Wasley, C. E. (1996). Estimating earnings response coefficients: Pooled versus firm specific models. Journal of Accounting Ecconomics, 21(June), 279—295.



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