Analysis of The Application of Agriculture Accounting (PSAK 69) In Plantation Subsector Companies Listed in Indonesia Stock Exchange 2017-2018

Retno Martanti Endah Lestari, Arief Tri Hardiyanto,
Abdul Kohar, and Yuni Asrika
Department of Accounting, Faculty of Economics Pakuan University, Bogor Indonesia
retno.martanti@unpak.ac.id, ariefteha@yahoo.com, abdul.kohar@unpak.ac.id,
yuniasrika98@gmail.com

Abdul Talib Bon
Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia
talibon@gmail.com

Abstract

The objectives of this study are (1) To determine the application of agricultural accounting in Plantation Sub-Sector Companies that are listed on the Indonesia Stock Exchange 2017-2018 in accordance with PSAK 69. (2) To determine the extent to which plantation sub-sector companies are listed on the stock exchange Indonesia 2017-2018 applies PSAK 69, both full and partial implementation. (3) To find out the comparison before and after the application of PSAK 69 in terms of recognition, measurement, presentation and disclosure. This research was conducted at plantation sub-sector companies listed on the Indonesia Stock Exchange for the 2017-2018 period. The sample used in this study were 15 companies. The sample was selected using purposive sampling method. The analytical method used in this research is descriptive qualitative which functions as an analyzer of the data that has been collected. The analysis carried out resulted in several things that needed to be known, including that all the companies studied had started implementing PSAK 69 in the 2018 financial year. The company retrospectively applied PSAK 69, except for one company with the company code MAGP which was still implementing it partially. The comparison between before applying and after applying if viewed from the recognition, that is, before application an asset in the form of living things is recognized as a stock, whereas after application an asset in the form of a living thing is recognized as a biological asset. Judging from the measurement, before application biological assets are measured at cost while after application are measured at fair value. Judging from the presentation and disclosure, there is a reclassification of inventories to biological assets as well as restatement because there are gains or losses due to the application of PSAK 69.

Keywords:
PSAK_69, Biological_Assets

1. Introduction

Agriculture is a branch of biology to make maximum use of biological resources. The activities of utilizing biological resources include, among others, cultivating plants or cultivating crops, raising livestock, including the use of microorganisms and bio-enzymes for processing advanced products. When talking about agriculture, this science covers several five sectors in general, including (1) food crops, (2) plantations, (3) forestry, (4) livestock and (5) fisheries.

In 2017-2018, the plantation sub-sector is still an important sub-sector in improving the national economy. The strategic role of the plantation sub-sector, both economically, ecologically and socio-culturally, is illustrated by its contribution to contributing to GDP (Gross Domestic Product, which is the market value of all goods and services produced by a country in a certain period. GDP is one method of calculating national income.); high investment value in building the national economy; contributing to balancing the national agricultural commodity trade balance; source of foreign exchange from export commodities; contribute to increasing state revenues from excise, export taxes and export duties; supply of food and industrial raw materials; absorbent labor; the main source of income for rural communities, border areas and underdeveloped areas; poverty alleviation; Providers of renewable biofuels and bioenergy, plays a role in reducing greenhouse gas emissions and contributes to the preservation of natural resources and the environment by following conservation principles.

In line with the various contributions of the plantation sub-sector, all forms of plantation cultivation must prioritize the balance of natural resource management, human resources and production input equipment / facilities through plantation management activities that meet environmental preservation principles. This is explained in Law Number 39 of 2014 concerning Plantation.

Law Number 39 of 2014 also states that plantations are all activities of managing natural resources, human resources, production facilities, tools and machines, cultivation, harvesting, processing and marketing related to plantation crops. With this broad understanding, the implementation of plantations has a heavy mandate in supporting national development. This mandate requires that the operation of plantations is aimed at (1) increasing the welfare and prosperity of the people; (2) increasing the source of foreign exchange; (3) providing employment and business opportunities; (4) increasing production, productivity, quality, added value, competitiveness and market share; (5) increasing and fulfilling domestic industrial consumption needs and raw materials; (6) provide protection for plantation business actors and the community; (7) managing and developing plantation resources optimally, responsibly and sustainably, and (8) increasing the utilization of plantation services.

Agricultural companies, especially those in the plantation sector, are now increasing in terms of quantity as evidenced by the wider area of land which has an impact on the increasing production of plantation products / commodities (Central Statistics Agency, 2017). The following is the data regarding the number of agricultural companies in the plantation subsector:

Table 1. Number of Large Plantation Companies by Plant Type, 2017-2018 *

Types of Plants	2017	2018*
Annual Plants		
Rubber	320	335
Coconut	107	NA
Palm Oil	1 695	1 756
Coffe	92	94
Cocoa	78	81
Tea	94	94
Clove	52	NA
Kapok	1	NA
Quinine	1	1
Seasonal Plants		
Cane	98	96
Tobacco	7	5

Note: * is a provisional number
Source: Processed from the Results of the Plantation Company Survey, BPS, 2019

Agricultural companies in their activities have assets that have unique characteristics that differentiate them from assets from other sector companies (Putri, 2014). These assets are known as biological assets. Biological assets are

assets in the form of living things (plants and animals). These assets are called biological assets because assets undergo biological transformation (Utomo and Khumaidah, 2014).

Biological assets undergo biological transformation in the form of growth, degeneration, production and procreation processes. Biological transformation allows the information presented by agricultural companies to be more biased than companies in other fields because the true value of an asset tends to change along with this biological transformation so that the assets of agricultural companies in the form of biological assets need special measurements that can show the fair value of these assets according to their contribution. in generating an economic profit flow to the company (Eltanto, 2014).

The treatment of biological assets in particular in agricultural companies has been regulated in the international standard International Accounting Standard (IAS) 41. IAS 41 regulates the recognition, measurement, presentation and disclosure of biological assets or activities in agricultural companies (Farida, 2014). IAS 41 recognizes biological assets at initial recognition and at each statement of financial position date, measured at fair value (Putri, 2012). The treatment of biological assets using the fair value concept is considered capable of enhancing comparable qualitative characteristics in the entity's financial statements (Liliana, et.al., 2012).

The practice of accounting for biological assets in Indonesia is based on the Statement of Financial Accounting Standards (PSAK) Number 69 concerning Agricultural Accounting. In general, PSAK 69 stipulates that biological assets or agricultural products are recognized when they meet the same criteria as the criteria for recognition of assets. These assets are measured at initial recognition and at the end of each financial reporting period at fair value less costs to sell. Gains or losses arising from changes in fair value of assets are recognized in profit or loss in the period in which they occur. An exception is given when the fair value cannot be measured reliably.

PSAK 69 is effective for financial year periods beginning on or after January 1, 2018 and recorded in accordance with PSAK 25: Accounting Policies, Changes in Accounting Estimates and Errors. Early adoption is permitted. An entity shall disclose this fact if the early exercise option is exercised. This is different for the financial year period before January 1, 2018 because previously used the acquisition value, while after using fair value. Agricultural companies have assets that are different from other sector companies in the form of living things or biological assets that change in terms of quality and quantity (biological transformation) so special attention needs to be paid to whether changes that occur over time in biological assets affect the way the company or entity treats assets in the form of biological assets according to their contribution in providing benefits to the company. The existence of biological transformation also has an impact on the presentation of financial reporting of agricultural companies which is more biased than other sectors because their assets in the form of living objects are different from those of other sectors in the form of inanimate objects. The accounting standard that specifically regulates the treatment of biological assets is PSAK 69 where the measurement is based on fair value, this is a constraint in Indonesia because the concept used is only effective for the financial year period starting on or after January 1, 2018.

2. Literature Review

2.1. Asset

Based on the Statement of Financial Accounting Standards (PSAK) in the Conceptual Framework of Financial Reporting, assets are resources controlled by the company due to past events and provide future benefits for the company (Kalfin et al., 2019a; Kalfin et al., 2019b; Kalfin et al., 2020). An object can be called an asset when it has three main characteristics. These characteristics, namely, the existence of a fairly certain future economic benefits, controlled or controlled by the company (entity), and arise as a result of past events (Suwardjono, 2014: 254).

2.2. Biological Assets

Biological assets in IAS 41 are defined as live plants and animals that are owned by a company or entity as a result of past events and are able to provide benefits in the future. Biological assets change over time, these changes are known as biological transformations. Biological transformation of IAS 41 paragraph 5 can be in the form of growth (increasing quality or increasing quantity), decreasing quality or quantity (degeneration), creating new plants (procreation), and producing products (production) (Simanjorang and Supatmi, 2014).

2.3. Accounting Standards for the Treatment of Biological Assets

The accounting standard that specifically regulates biological assets is the International Accounting Standard (IAS) 41. Indonesia is a country rich in natural resources, so it is undeniable that Indonesian companies engaged in the agricultural sector are quite potential. Agricultural companies have biological assets that must also be measured and disclosed in the company's activities to provide information. The financial accounting standards used by most agricultural companies in Indonesia refer to PSAK 16 regarding fixed assets and PSAK 14 concerning inventories. However, the use of PSAK 16 and PSAK 14 was no longer effective since January 1, 2018 and then changed to using PSAK 69 which became effective on January 1, 2018.

2.4. Recognition and Measurement of Biological Assets

Companies recognize biological assets if these assets are the result of past events, have future economic benefits that flow to the company, and the fair value or cost of the assets can be measured reliably (IAS 41 paragraph 10 in Simanjorang and Supatmi, 2014). According to IAS 41, biological assets are classified into mature assets and immature assets, as well as supplies in the form of agricultural products at the point of harvest.

Measurement of biological assets according to IAS 41 is carried out at initial recognition and at the date of the financial statements based on fair value based on market prices less estimated costs to sell (paragraph 12 of IAS 41). IAS 41 introduces a fair value approach based on market prices to measure biological assets, namely plant and livestock assets.

2.5. Disclosure of Biological Assets

Agricultural companies in IAS 41 Paragraphs 40-50 (Simanjorang and Supatmi, 2014) reveal:

a. Aggregate gain or loss incurred during the period.
b. Description of each group of biological assets, if not disclosed as published information in the financial statements, the agricultural company must describe the nature of activities involving each group of biological assets.
c. Agricultural companies must disclose the methods and significant assumptions applied in determining the fair value of each group of agricultural produce at the point of harvest and each class of biological assets.
d. Agricultural companies must disclose the fair value less costs to sell of agricultural products that have been harvested during a certain period.
e. For agricultural companies to disclose the presence and carrying amount of biological assets, the entity shall present a reconciling list of changes in the carrying value of biological assets between the beginning and the end of the current period.

3. Methodology

3.1. Sampling Method

There are 16 companies engaged in the plantation sub-sector listed on the IDX. However, of the 16 companies that have met the criteria, only 15 companies. The following table shows the sample criteria in the study:

Table 2. Sample Criteria in Research

Information	Many Companies
Plantation sub-sector companies listed on the IDX in 2017-2018	16
Delisting	(1)
The company did not report biological assets in the 2018 study period	(0)
Companies do not use rupiah units in their financial statements	(0)
Companies that meet the criteria	15

Source: Indonesia Stock Exchange, processed in 2019

3.2. Operationalization of Variables

The following is data regarding operational variables presented in tabular form:

Table 3. Operationalization of Variables Implementation of PSAK No. 69

Variable	Sub Variable	Indicator	Size
PSAK 69	Recongnition	Accuracy in recognizing items in financial statements	The entity controls biological assets as a result of past events; It is probable that the future economic benefits associated with the biological asset will flow to the entity; and The fair value or cost of biological assets can be measured reliably
	Measurement	Accuracy in measuring biological assets	Calculating the amount of biological assets using fair value
	Presentation	Truth and appropriateness of presenting financial statements	An entity shall present a reconciliation of changes in the carrying amount of biological assets between the beginning and the end of the current period.
	Disclosure	The truth and appropriateness of disclosing the items in the financial statements	An entity shall disclose the gain or loss arising during the period: the initial recognition of biological assets and agricultural products, and from changes in fair value less costs to sell biological assets

4. Analysis and Discussion

4.1. The application of agricultural accounting in plantation sub-sector companies listed on the Indonesia Stock Exchange in 2017-2018 is in accordance with PSAK 69

It can be seen from the financial statements of the fifteen companies listed on the stock exchange that all of these companies starting January 1, 2018 have used PSAK 69 as the financial reporting standard for biological assets as can be seen in the following table.

Table 4. Compliance with PSAK 69

No	Company Name	Compliance with PSAK 69
1	PT Astra Agro Lestari, Tbk (AALI)	✓
2	PT Austindo Nusantara Jaya, Tbk. (ANJT)	✓
3	PT Eagle High Plantations, Tbk. (BWPT)	✓
4	PT Dharma Satya Nusantara, Tbk. (DSNG)	✓
5	PT Gozco Plantations, Tbk. GZCO)	✓
6	PT Jaya Agra Watti, Tbk. (JAWA)	✓
7	PT London Sumatra Indonesia, Tbk. (LSIP)	✓
8	PT Multi Agro Gemilang Plantation Tbk. (MAGP)	✓
9	PT Provident Agro, Tbk. (PALM)	✓
10	PT Sampoerna Agro, Tbk. (SGRO)	✓
11	PT Salim Ivomas Pratama, Tbk. (SIMP)	✓
12	PT Sinar Mas Agro Resources and Technology, Tbk. (SMAR)	✓
13	PT Sawit Sumbermas Sarana Tbk. (SSMS)	✓
14	PT Tunas Baru Lampung, Tbk (TBLA)	✓
15	PT Bakrie Sumatera Plantations, Tbk. (UNSP)	✓

Source: Financial Statements, data processed by the author (2019)

The application of agricultural accounting to Plantation Sub-Sector Companies listed on the Indonesia Stock Exchange 2017-2018 is in accordance with PSAK 69. There are 15 companies in this study, all of which starting from January 1, 2018 have used PSAK 69 as a standard financial statement for assets biological.

4.2. To what extent have plantation sub-sector companies listed on the Indonesia Stock Exchange in 2017-2018 implement PSAK 69

It can be seen that the financial statements of the fifteen companies listed on the stock exchange are that all of these companies apply PSAK 69 retrospectively, except for PT Multi Agro Gemilang Plantation Tbk. (MAGP) which still applies partially, as can be seen in the following table.

Table 5. Retrospective application of PSAK 69

No	Company Name	Retrospective application of PSAK 69
1	PT Astra Agro Lestari, Tbk (AALI)	✓
2	PT Austindo Nusantara Jaya, Tbk. (ANJT)	✓
3	PT Eagle High Plantations, Tbk. (BWPT)	✓
4	PT Dharma Satya Nusantara, Tbk. (DSNG)	✓
5	PT Gozco Plantations, Tbk. GZCO)	✓
6	PT Jaya Agra Watti, Tbk. (JAWA)	✓
7	PT London Sumatra Indonesia, Tbk. (LSIP)	✓
8	PT Multi Agro Gemilang Plantation Tbk. (MAGP)	Partial
9	PT Provident Agro, Tbk. (PALM)	✓
10	PT Sampoerna Agro, Tbk. (SGRO)	✓
11	PT Salim Ivomas Pratama, Tbk. (SIMP)	✓
12	PT Sinar Mas Agro Resources and Technology, Tbk. (SMAR)	✓
13	PT Sawit Sumbermas Sarana Tbk. (SSMS)	✓
14	PT Tunas Baru Lampung, Tbk (TBLA)	✓
15	PT Bakrie Sumatera Plantations, Tbk. (UNSP)	✓

Source: Financial Statements, data processed by the author (2019)

To what extent are the plantation sub-sector companies listed on the Indonesia Stock Exchange in 2017-2018 implementing PSAK 69, either fully or partially. It is known that the fifteen companies listed on the stock exchange are applying PSAK 69 retrospectively, except for PT Multi Agro Gemilang Plantation Tbk. (MAGP) which still applies partially. Supported by the absence of a biological asset account in the statement of financial position, because in this company the application of PSAK 69 did not significantly affect its financial statements.

4.3. Comparison before and after the application of PSAK 69 in terms of recognition, measurement, presentation and disclosure

4.3.1 Recognition

It can be seen that the financial statements of the fifteen companies listed on the stock exchange are that all of these companies recognize assets in the form of living things as biological assets, except for PT Multi Agro Gemilang Plantation Tbk. (MAGP) which still recognizes it as a supply, as can be seen in the following table.

Table 6. Biological Asset Recognition

No.	Company Code	Company 2017	PSAK	Company 2018	Conformity
1	AALI	Inventory	In PSAK 69 Tangible Assets Creature Life Acknowledged As Biological Assets	Biological Asset	✓
2	ANJT	Inventory		Biological Asset	✓
3	BWPT	Inventory		Biological Asset	✓
4	DSNG	Inventory		Biological Asset	✓
5	GZCO	Inventory		Biological Asset	✓
6	JAWA	Inventory		Biological Asset	✓
7	LSIP	Inventory		Biological Asset	✓
8	MAGP	Inventory		Biological Asset	Not

9	PALM	Inventory		Biological Asset	✓
10	SGRO	Inventory		Biological Asset	✓
11	SIMP	Inventory		Biological Asset	✓
12	SMAR	Inventory		Biological Asset	✓
13	SSMS	Inventory		Biological Asset	✓
14	TBLA	Inventory		Biological Asset	✓
15	UNSP	Stock		Biological Asset	✓

Source: Financial Statements, data processed by the author (2019)

Judging from the recognition, in 2017, before the implementation of PSAK 69, all companies recognized assets in the form of living things as inventories. Meanwhile, in 2018, after the implementation of PSAK 69, all companies recognized assets in the form of living things as biological assets, except for PT Multi Agro Gemilang Plantation Tbk. (MAGP) which still recognizes assets in the form of living things as supplies.

4.3.2. Measurement

It can be seen from the financial statements of the fifteen companies listed on the stock exchange, it is that all of these companies to measure the biological assets of the company are in accordance with the standards applicable at that time, when in 2017 using the acquisition price while for 2018 it was according to using fair value. as can be seen in the following table.

Table 7. Measurement Asset Recognition

No.	Company Code	Company 2017	PSAK	Company 2018	Conformity
1	AALI	Acquistion Cost	On PSAK 69 Asset Biological Be measured with Fair Value	Fair Value	✓
2	ANJT	Acquistion Cost		Fair Value	✓
3	BWPT	Acquistion Cost		Fair Value	✓
4	DSNG	Acquistion Cost		Fair Value	✓
5	GZCO	Acquistion Cost		Fair Value	✓
6	JAWA	Acquistion Cost		Fair Value	✓
7	LSIP	Acquistion Cost		Fair Value	✓
8	MAGP	Acquistion Cost		Fair Value	✓
9	PALM	Acquistion Cost		Fair Value	✓
10	SGRO	Acquistion Cost		Fair Value	✓
11	SIMP	Acquistion Cost		Fair Value	✓
12	SMAR	Acquistion Cost		Fair Value	✓
13	SSMS	Acquistion Cost		Fair Value	✓
14	TBLA	Acquistion Cost		Fair Value	✓
15	UNSP	Acquistion Cost		Fair Value	✓

Source: Financial Statements, data processed by the author (2019)

Judging from the measurement, in 2017, before the implementation of PSAK 69, all companies measured biological assets at cost. Meanwhile, in 2018, after the implementation of PSAK 69, all companies measured biological assets at fair value.

4.3.3. Presentation and Disclosure

It can be seen that the financial statements of the fifteen companies listed on the stock exchange are that all of these companies reclassify assets in the form of living things as biological assets and restate their financial statements, except for PT Multi Agro Gemilang Plantation Tbk. (MAGP) which does not reclassify and restate, as can be seen in the following table.

Table 8. Presentation and Disclosure Biological Asset

No	Company Name	Reclassification and Restatement
1	PT Astra Agro Lestari, Tbk (AALI)	✓
2	PT Austindo Nusantara Jaya, Tbk. (ANJT)	✓
3	PT Eagle High Plantations, Tbk. (BWPT)	✓
4	PT Dharma Satya Nusantara, Tbk. (DSNG)	✓
5	PT Gozco Plantations, Tbk. GZCO)	✓
6	PT Jaya Agra Watti, Tbk. (JAWA)	✓
7	PT London Sumatra Indonesia, Tbk. (LSIP)	✓
8	PT Multi Agro Gemilang Plantation Tbk. (MAGP)	Not
9	PT Provident Agro, Tbk. (PALM)	✓
10	PT Sampoerna Agro, Tbk. (SGRO)	✓
11	PT Salim Ivomas Pratama, Tbk. (SIMP)	✓
12	PT Sinar Mas Agro Resources and Technology, Tbk. (SMAR)	✓
13	PT Sawit Sumbermas Sarana Tbk. (SSMS)	✓
14	PT Tunas Baru Lampung, Tbk (TBLA)	✓
15	PT Bakrie Sumatera Plantations, Tbk. (UNSP)	✓

Source: Financial Statements, data processed by the author (2019)

Judging from the presentation and disclosure, the company applied PSAK 69 for the first time and had reclassified its inventory account to “Biological Asset” and had restated the information regarding any gain or loss resulting from the application of PSAK 69, except for PT Multi Agro Gemilang Plantation Tbk. (MAGP) which did not perform reclassification and did not restate its financial statements because the impact of the application of PSAK 69 was immaterial, so restatement was impractical to do. The conclusions that can be drawn from the research results when viewed from the table are as follows.

Table 9. Research Conclusion After Application of PSAK 69

No.	Company Code	Compliance with PSAK 69	Retrospective adoption of PSAK 69	Recongnition as a Biological Asset	Fair Value Measurement	Reclassification and Restatement
1	AALI	✓	✓	✓	✓	✓
2	ANJT	✓	✓	✓	✓	✓
3	BWPT	✓	✓	✓	✓	✓
4	DSNG	✓	✓	✓	✓	✓
5	GZCO	✓	✓	✓	✓	✓
6	JAWA	✓	✓	✓	✓	✓
7	LSIP	✓	✓	✓	✓	✓
8	MAGP	✓	Parcial	Inventory	✓	Not
9	PALM	✓	✓	✓	✓	✓
10	SGRO	✓	✓	✓	✓	✓
11	SIMP	✓	✓	✓	✓	✓

12	SMAR	✓	✓	✓	✓	✓
13	SSMS	✓	✓	✓	✓	✓
14	TBLA	✓	✓	✓	✓	✓
15	UNSP	✓	✓	✓	✓	✓

Source: Financial Statements, data processed by the author (2019)

Judging from the table above it can be concluded that all companies have implemented PSAK 69 starting from January 1, 2018, all companies have implemented it retrospectively, but there is one company, namely MAGP which is still implementing partially in other words part of the full, supported by notes on financial statements has included and the measurement has used fair value, which is not only in the recognition section, which still recognizes assets in the form of living things as inventory and does not reclassify or restate the financial statements.

5. Conclusion

This study aims to determine the analysis of the application of PSAK 69 agricultural accounting in the plantation sub-sector listed on the Indonesia Stock Exchange (BEI) in 2017-2018. Based on the results of the analysis test conducted by the author, it can be concluded as follows.

The application of agricultural accounting to Plantation Sub-Sector Companies listed on the Indonesia Stock Exchange 2017-2018 is in accordance with PSAK 69. There are 15 companies in this study, all of which starting from January 1, 2018 have used PSAK 69 as a standard financial statement for assets biological.

To what extent are the plantation sub-sector companies listed on the Indonesia Stock Exchange in 2017-2018 implementing PSAK 69, either fully or partially. It is known that the fifteen companies listed on the stock exchange are applying PSAK 69 retrospectively, except for PT Multi Agro Gemilang Plantation Tbk. (MAGP) which still applies partially. Supported by the absence of a biological asset account in the statement of financial position, because in this company the application of PSAK 69 did not significantly affect its financial statements.
Comparisons before and after the application of PSAK 69 in terms of recognition, measurement, presentation and disclosure are as follows:

Judging from the recognition, in 2017, before the implementation of PSAK 69, all companies recognized assets in the form of living things as inventories. Meanwhile, in 2018, after the implementation of PSAK 69, all companies recognized assets in the form of living things as biological assets in current assets, except for PT Multi Agro Gemilang Plantation Tbk. (MAGP) which still recognizes assets in the form of living things as supplies. Judging from the measurement, in 2017, before the implementation of PSAK 69, all companies measured biological assets at cost. Meanwhile, in 2018, after the implementation of PSAK 69, all companies measured biological assets at fair value. Judging from the presentation and disclosure, the company applied PSAK 69 for the first time having reclassified its inventory account to “Biological Asset” and had restated the information regarding any gain or loss resulting from the application of PSAK 69, except for PT Multi Agro Gemilang Plantation Tbk. (MAGP) which did not perform reclassification and did not restate its financial statements because the impact of the application of PSAK 69 was immaterial, so restatement was impractical to do.

Acknowledgment

1. Faculty of Economic, Pakuan University, for supporting, coordinating and facilitating to achieve this international conference.
2. Research and Comunity Services Institute (LPPM), Pakuan University, for supporting this research.
3. Center of Excellence on Research and Inovation (PURI), Faculty of Economic, Pakuan University, for supporting to arrangement this article.

References

Adita dan Kiswara, (2012), Analisis penerapan International Accounting Standard (IAS) 41*, Diponegoro Journal of Accounting,* Vol. 1 No.2.

Badan Pusat Statistik, (2018), Perkebunan. *Bps.go.id*, Tersedia di: https://www.bps.go.id/subject/54/perkebunan.html [Diakses 1 Oktober 2019]

CNBC Indonesia, (2019), Lepas dari TPS Food, GOLL Didenda BEI karena Lapkeu, *Cnbcindonesia.com*,

Tersedia di: https://www.cnbcindonesia.com/market/20190701111703-17-81795/lepas-dari-tps-food-goll-didenda-bei-karena-lapkeu [Diakses 14 Oktober 2019]

Eltanto, D. P. (2014), Perlakuan akuntansi dan pph atas industri agrikultur, *Tax & Accounting Review,* Vol. 4 No. 1.

Fahmi, I., (2012), *Analisis Laporan Keuangan*, Bandung: Penerbit Alfabeta.

Farida, I., (2014), Analisis perlakuan akuntansi aset biologis berdasarkan International Accounting Standard 41 pada PT. Perkebunan Nusantara VII (Persero).

Ikatan Akuntan Indonesia, (2015), ED PSAK 69 (07 Sept 2015), *Iaiglobal.or.id*. Tersedia di: http://tempdata.iaiglobal.or.id/files/ED%20PSAK%2069%20(07%20Sept%202015).pdf [Diakses 29 Juni 2019]

Ikatan Akuntan Indonesia, (2018), *PSAK 69 Agrikulutur*, Dewan Standar Akuntansi Keuangan.

Kalfin, Sukono, Carnia, E. (2019a). Optimization of the mean-absolute deviation portfolio investment in some mining stocks using the singular covariance matrix method. *In Journal of Physics: Conference Series* (Vol. 1315, No. 1, p. 012002). IOP Publishing.

Kalfin, Sukono, and Ema Carnia. (2019b). Portfolio Optimization of the Mean-Absolute Deviation Model of Some Stocks using the Singular Covariance Matrix. *International Journal of Recent Technology and Engineering (IJRTE)*, ISSN: 2277-3878.

Kalfin, Sukono, Carnia, E., Sirait, H. (2020). Portfolio optimization model of mean-standard deviation using non-singular covariance matrix and singular covariance matrix methods. *International Journal of Advanced Science and Technology*, 29(5), pp. 174–186

Lestari, Retno Martanti Endah., et al, (2019), Accounting for Biological Assets: Data from Indonesia and Malaysia. *International Journal of Innovation, Creativity and Change. www.ijicc.net* Volume 6, Issue 9, 2019.

Maxmanroe, Pengertian Agrikultur: Definisi, Sektor, dan Produk Agrikultur. *Maxmaroe.com*, Tersedia di: https://www.maxmanroe.com/vid/bisnis/pengertian-agrikultur.html [Diakses 8 Desember 2019]

Oktapiani, Mely Tarliah., (2019), *Penerapan PSAK No. 46 Tentang Akuntansi Pajak Penghasilan pada PT MSC Tahun 2017*, Skripsi. Universitas Pakuan.

Putri, D.G.S., (2012), *Analisis akuntansi atas biological asset perusahaan perkebunan tanaman keras di PT ASG sebagai studi kasus,* Skripsi, Jurusan Ekstensi Fakultas Ekonomi Universitas Indonesia.

Referensi Makalah, (2012), Pengertian Data Kualitatif dalam Penelitian, *Referensimakalah.com*, Tersedia di: https://www.referensimakalah.com/2012/08/pengertian-data-kualitatif-dalam.html [Diakses 30 November 2019]

RSM, (2018), Standar Akuntansi Keuangan untuk Agrikultur, *Rsm.global.* Tersedia di: https://www.rsm.global/indonesia/id/insights/artikel/standar-akuntansi-keuangan-untuk-agrikultur [Diakses 29 Juni 2019]

Simanjorang, R.D. dan Supatmi., (2014), Praktik perlakuan akuntansi aset biologis pada perusahaan perkebunan (Persero) di Indonesia.

Sugiyono. (2015). *Metode penelitian pendidikan: pendekatan kuantitatif, kualitatif, dan R&D.* Bandung: Alfabeta.

Suwardjono. (2014). *Teori akuntansi : perekayasaan pelaporan keuangan (edisi Ke-3).* Yogyakarta: BPFE.

Syakur, A.S. (2015). *Intermediate accounting (edisi revisi).* Jakarta : AV Publisher.

Utomo, R. dan Khumaidah, N.L. (2014). Perlakuan akuntansi aset biologis (tanaman kopi) pada PT. Wahana Graha Makmur – Surabaya, *Gema Ekonomi Jurnal Fakultas Ekonomi,* Vol. 3, No. 1.

Wikipedia, (2019). Perkebunan. *Wikipedia.org*. Tersedia di: https://id.wikipedia.org/wiki/Perkebunan [Diakses 1 Oktober 2019]

Wikipedia, (2019). Pertanian dan Perkebunan di Indonesia. *Wikipedia.org*. Tersedia di: https://id.wikipedia.org/wiki/Pertanian_dan_perkebunan_di_Indonesia [Diakses 1 Oktober 2019]

Wikipedia, (2019). Produk domestik bruto. *Wikipedia.org*. Tersedia di: https://id.wikipedia.org/wiki/Produk_domestik_bruto [Diakses 8 Desember 2019]

Biographies

Retno Martanti Endah Lestari Graduated from bachelor degree in the Accounting Study Program, Faculty of Economics, Pakuan University (FEUP), in 1999, graduated from Masters in Accounting Masters Program, Muhamadiyah University Jakarta in 2007 and graduated from Doctoral Program in Accounting Science,

Padjadjaran University in 2020. She taking a *Certified Management Accountant* and *Certified Analyst in Project Management* licensed Australia in 2019. Currently, she is a permanent lecturer at the Departement of Accounting, Faculty of Economics, Pakuan University, in Bogor. She teaches Basic Accounting, Cost Accounting and Management Accounting. Also a lecturer at the Indonesia Open University in Bogor. Currently, she is holding the mandate of being the Assistant of the Departement of Accounting, Faculty of Economics, Pakuan University. Prior to becoming a lecturer, she had served as Supervisor Accounting at PT. PIBIB Jala Jagad Indonesia, PT. Sarana Indoboga Pratama in 2003 and several of its branches. She was won 3rd place in Pakuan University level outstanding lecturers. She has a Copyright for Research on Mosque Accounting Practices in Bogor in 2019. She have attended the Accounting Technician Training in 2019, Accurate Online Training in 2019, participated in the Student Colloqium at the Faculty of Management Multimedia University Malaysia in 2018, University Putera Malaysia in 2018, in Bangkok in 2018 and in Korea in 2018, also various scientific meetings.

Arief Tri Hardiyanto is a lecturer in the Department of Accounting, Faculty of Economics, Pakuan University, Bogor, Indonesia. Obtained a Bachelor of State College of Accountancy (STAN), obtained a Masters in Business Management, Monash University and a Doctor of Management and Business, Bogor Agricultural Institute. He teaches in Cost Accounting, Risk Management, Management Accounting, Financial Management, Advanced Management Accounting, International Financial Management. He has published national and international journals. Currently he is the Head of the Accounting Department, Faculty of Economics, Pakuan University.

Abdul Kohar is a lecturer at the Department of Accounting, Faculty of Economics, Pakuan University, Bogor, Indonesia. Obtained a Bachelor's degree from the Faculty of Economics, Pakuan University and a Masters in Accounting, Pancasila University. He teaches in Introduction to Accounting, Intermediate Financial Accounting, and Advanced Financial Accounting. He also teaches at the Bogor Agricultural Institute Vocational School and the Open University. He has published accounting journals and papers. He currently serves as Coordinator of the Accounting and Financial Auditing Concentration, Faculty of Economics, Pakuan University.

Yuni Asrika is a fresh bachelor graduate from Faculty of Economic Pakuan Univeristy in Bogor, Indonesia.

Abdul Talib Bon is a professor of Production and Operations Management in the Faculty of Technology Management and Business at the Universiti Tun Hussein Onn Malaysia since 1999. He has a PhD in Computer Science, which he obtained from the Universite de La Rochelle, France in the year 2008. His doctoral thesis was on topic Process Quality Improvement on Beltline Moulding Manufacturing. He studied Business Administration in the Universiti Kebangsaan Malaysia for which he was awarded the MBA in the year 1998. He’s bachelor degree and diploma in Mechanical Engineering which his obtained from the Universiti Teknologi Malaysia. He received his postgraduate certificate in Mechatronics and Robotics from Carlisle, United Kingdom in 1997. He had published more 150 International Proceedings and International Journals and 8 books. He is a member of MSORSM, IIF, IEOM, IIE, INFORMS, TAM and MIM.