

The Influence of Board Members' Diversity Characteristics on Accounting Conservatism of Service Firms in Infrastructure, Utilities, and Transportation Sectors on the Indonesia Stock Exchange

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Abstract

This research was aimed to examine the influence of board members' diversity characteristics of gender, education level, age, and nationality on accounting conservatism. The study was analyzed by using panel data regression analysis method. The samples of this research were 58 service firms in infrastructure, utilities, and transportation sectors registered on the Indonesia Stock Exchange in 2017-2019. The result of the study found out that board members' diversity characteristics simultaneously gave a significant influence on accounting conservatism measured by accrual or market basis. Partially, diversity of gender, diversity of nationality, leverage and firm size have a significant effect on accounting conservatism measured by accrual basis. Meanwhile, the diversity of education level and age did not give any significant influence on accounting conservatism measured by accrual basis. Besides, there was a significant influence of diversity of gender and leverage on accounting conservatism measured by market size, and there was no significant influence on the diversity of education level, age, nationality, and firm size on accounting conservatism measured by market size. This implication is useful for investors to obtain additional information related to investment decisions. The agency is directly related to the promote of board diversity which improves the quality of accounting and transparency of financial reporting. Creditors will consider in making credit decisions to companies. The company can be used in decision making by considering the demographic diversity of the board. Academics can contribute to the development of science, especially in business and finance.

Key words: accounting conservatism, accrual basis, market basis, gender, education level, age, nationality, leverage, firm size.

Introduction. There still have been a number of firms manipulating financial report nowadays. One of the most phenomenal cases regarding financial report manipulation happened in 2001 by Enron Inc. and in 2002 by Word Com Inc. Financial report manipulation has also existed in Indonesia. This action generally commences with profit markup which is against accounting conservatism principle in which profit acknowledgement will be done carefully in accordance with the fact. The case indicates low accounting conservatism level in the companies. It supports the idea of the importance of accounting conservatism implication to prevent profit overstatement that can cause bad impacts for the companies in the future (Noviantari & Ratnadi, 2015). Conservatism principle is a basic principle that always influences accounting practice and financial report (El-haq, 2019; Hajawiyah et al., 2020; Septian & Anna, 2014; Setiawan & Fransysca, 2020; Yanti et al., 2017; Zeghal & Lahmar, 2018).

This research discussed board members' diversity characteristics of gender, education level, age, and nationality. In the last few years, the diversity of board members has become a major issue in public information transparency. Board members' diversity can be measured by several dimensions like gender, age, nationality, educational background, industrial experience, and many more (Wang, 2015). Thus, this diversity might give interesting context to learn demographic diversity of board members on accounting conservatism and this can influence choosing accounting practice as well as profit quality (Makhlof et al., 2018).

In the beginning, this study talked about gender diversity. Gender diversity has been part of board members' spread characteristics. Two tier boards - system continental is applied in Indonesia in which the first level is board of commissioner. Board of commissioner is the supervisor. The second level is board of directors. Supervisory boards are led by president commissioner, while board of directors are led by chief executive officer (CEO) (Dewi & Dewi, 2016; Fathonah et al., 2019 ; Yogiswari & Badera, 2019).

Gender diversity is considered as an active problem of policy making in many countries to have law of gender quota system for females in board of directors (Ginesti et al., 2018; Makhlof et al., 2018). Conservatism promotes neutrality (unbiased and objective view point) in financial report by voiding over optimism in applying accounting standard by management. Generally, firm decision made by female executives are really different compared to decision made by male executives. Nevertheless, there are various results to prove whether or not there is gender influence on limited accounting decision making (Francis et al., 2015; Makhlof et al., 2018).

The second board members' spread characteristic is education level diversity. Education level indicates someone's cognitive ability and skill. For example, when members have high level of education, they have enough ability in strategy and problem solving as education level gives access to creative ideas (Makhlof et al., 2018). However, there were only a few number of researches about members education level and accounting conservatism (Makhlof et al., 2018). The higher level of education that board directors have, the higher level of accounting conservatism (Makhlof et al., 2018). Furthermore, Aier et al., (2005) stated that CFOs who have high education level (having bachelor title) do less profit restatement than those who do not.

The third board members' spread characteristic is age. It was found out that young managers are less conservative and motivated to proceed new insights (Darmadi, 2011). Age and accounting conservatism correlation are still less investigated (Makhlof et al., 2018).

The fourth board members' spread characteristic is nationality. Board members influenced by foreign members will need qualified information. Thus, they lean to use more conservative accounting procedures (Makhlof et al., 2018). Even though most of the foreign members are from developing countries, there were only a few studies about the influence of nationality diversity on accounting conservatism (Makhlof et al., 2018).

This study used leverage and firm size as control variables. The samples of this study were service firms in infrastructure, utilities, and transportation sectors on the Indonesia Stock Exchange. Most of the previous studies discussed variables, like board of directors, from the sight of companies' management focusing on the independence of directors, board of director size, board meeting, leadership structure. Nevertheless, there were only few that discussed about demographic characteristics of board of directors, like gender, age, education level, and nationality (Makhlof et al., 2018). This research used two methods measuring accounting conservatism, which were accrual basis and market basis to compare conservatism measurement techniques to achieve more comprehensive result. The researcher used two conservatism measurement methods, as suggested by Makhlof et al., 2018 in contrast to the previous studies using similar variables but only one method.

Theoretical Frameworks

Agency Theory

Jensen & Meckling (1976) defined the agency relationship as a form of contract between a company's owners and its managers, where the owners (as principal) appoint an agent (the managers) to manage the company on their behalf. Principal provides facilities and fund to operate the firms, whereas agent manages the company to increase the value of the company.

Resource Dependence Theory

Resource Dependence Theory was developed by Aldrich & Pfeffer, (1976). The foundation of this theory is the statement of Emerson (1962) who mentioned that A has power over B when he/ she controls resources that B values and are not available elsewhere. Therefore, company management has motivation to ensure company performance and increase corporate autonomy. This theory emphasizes the power and thorough observation of strategies provided for management. Resource Dependence Theory suggests the company maximize the human resources. Human resource structure diversification regarding race has been an important point to maximize company major resources (Siciliano, 1996).

Correlation between Variables and Hypothesis Development the Influence of Gender Diversity on Accounting Conservatism

According to agency theory, the existence of female board members can improve observation mechanism and align the interest of manager and stake holders (Ginesti et al., 2018; Gull, 2018 ; Ho, et al., 2015). Women are risk averse and ethic, lean to be more conservative in accounting assignment. Besides, they have the competence to acknowledge bad news in reported profits in a more timely. (Ho et al., 2015 ; Francis et al., (2015). In accordance with this theory, women can increase the efficacy of the board to monitor management.

For example, women prefer to begin debate on controversial issues and to defiance the opinion of the Chief Executive than men. Therefore, board diversity is an efficacious tool for the oversight process (Ginesti et al., 2018; Gull, 2018). Women will tend to be more careful in recognizing earnings for higher quality of company's profit reports. They also apply accounting conservatism so that the quality of earnings in the company will increase (Ho, et al., 2015). Makhlof et al (2018), Boussaid et al (2015), Francis et al., (2015), Varadina & Diatmika, (2018) and Ho et al., (2015) found that there is a relationship between gender diversity and accounting conservatism. This suggests that female board members is more ethical and risk averse. Women play an important role in increasing the credibility of financial statements and improving disclosure mechanisms. Thus, these results confirm that female members provide more conservative reporting practices. In addition, Ginesti et al (2018) argue that the presence of female members increases the transparency of financial reports because women are more efficient in board activities and monitoring functions. Based on the description, the following hypothesis can be formulated:

H_1 : Gender diversity gives positive influence on accounting conservatism

Education Level Diversity Influences Accounting Conservatism

The level of education reflects a person's cognitive abilities and skills. From the point of view of resource dependence theory, the board of directors is considered the main resource for the company. Therefore, directors who have higher qualifications such as PhD or Masters degrees will serve as strategic resources because they have a mix of competencies and capabilities that will assist them in carrying out their duties (Makhlof et al., 2018). Makhlof et al (2018)'s research shows that there is a positive relationship between education level and accounting conservatism. Aier et al., (2005) stated that the higher the level of CFO education, the lower the company's profit restatement, especially in companies that have CFOs with previous experience in finance (CFO), and have an MBA education level. Based on the description, the following hypothesis can be formulated:

H_2 : Education Level Diversity gives positive influences on accounting diversity.

Age Diversity Influences Accounting Conservatism

Agency theory suggests that younger members are more likely to be prepared to assume more risk and to make significant structural changes to improve the future opportunities of the firm, whereas older members prefer investments that provide quick returns (Makhlof et al., 2018). This is understandable because older members tend to be more risk averse (Darmadi, 2011). Young managers tend to be less conservative and more motivated to process new ideas (Darmadi, 2011). Resource dependency theory also argues that young members promote the decision-making process and provide unique perspectives and ideas (Makhlof et al., 2018). The research of Makhlof et al (2018) found that there is a positive relationship between the average age of directors and accounting conservatism. Then, the following hypothesis can be formulated:

H_3 : Age Diversity gives positive influence on accounting conservatism.

Nationality Diversity Influences Accounting Conservatism

The existence of foreign board members can have advantages like having candidates with more extensive work experience. Then, foreign board members have different backgrounds as to provide more experience for the company and can add information compared to domestic board members. In addition, the presence of foreign board members can convince investors that the company is managed properly and professionally (Makhlof et al 2018; Yogiswari & Badera, 2019). Resource dependency theory suggests that foreign members allow value added to boards and firms by having different skills and experiences. In other words, directors who are dominated by foreign members will require higher quality information, so they tend to use more conservative accounting procedures (Makhlof et al., 2018). Makhlof et al., (2018) stated that there is a positive relationship between foreign diversity with accounting conservatism. Based on the description above, the hypothesis is formulated as follows:

H_4 : Nationality Diversity can give positive influence of accounting conservatism.

Leverage Influences Accounting Conservatism

Agency theory states that managers and creditors have different interests which will lead to a conflict of interest. Managers who get credit will consider leverage. Thus, managers will choose to apply conservative accounting to avoid conflicts and possible risks that can be a impediment to the survival of the company (Vidyari & Sugiarto, 2018; Wang, 2015). Research by Makhlof et al (2018) mentions that leverage has an effect on accounting conservatism. It is in line with the research of Dewi & Suryanawa, (2014), Sugiarto & Fachrurrozie (2018), Ursula & Adhivinna (2018), Varadina & Diatmika (2018), Yanti et al (2017), Yuliarti et al (2017) and Zulfiati & Lusiana, (2020) which states that

leverage has a relationship on accounting conservatism. The higher the debt level, the higher the accounting conservatism. Based on this description, the following hypothesis can be formulated :

H₅: Leverage gives positive significant influence on accounting conservatism.

Firm Size Influences Accounting Conservatism

According to agency theory, large firms are more likely to face greater political risk than small firms, which encourages large firms to adopt more conservative accounting practices. Big companies are usually more sensitive to anything related to politics. The hope is to create good political relations, so that companies will make financial statements very carefully to apply the procedure of accounting conservatism (Hotimah, 2018; Septian & Anna, 2014). Research by Hotimah (2018), Makhlof et al (2018), Noviantari & Ratnadi (2015), Septian & Anna (2014) and Ursula & Adhivinna (2018) states that firm size has an effect on accounting conservatism. Based on this description, the following hypotheses can be formulated:

H₆ : Firm size gives positive influence on accounting conservatism

Research Methodology

This study used financial reports, annual reports of service companies in the infrastructure, utilities, and transportation sectors on the Indonesia Stock Exchange during 2017-2019, websites, and online media as secondary data in this study. Data collection techniques were using secondary data collected by doing the documentation method. The populations in this study were service companies on the Indonesia Stock Exchange selected in the infrastructure, utilities, and transportation sectors. The sample selection method used purposive sampling method based on certain criteria and the selected sample was 58 companies.

Operational Variables Definition

Dependent Variable

This study used the dependent variable, which was accounting conservatism that was measured by using 2 measures as follows :

- a. Accrual basis. The formula for measuring accrual-based conservatism according to Givoly & Hayn (2000) is as follows:

$$\text{CON_ACCit} = [(NI_{it} - CFO_{it})]$$

- b. Market basis with the following formula by Beaver & Ryan (2005) :

$$\text{BTM} : \frac{\text{Equity Book Value}}{\text{Closing Price} \times \text{Volume Shares}}$$

Independent Variable

Gender Diversity

Gender diversity in this study is the number of female board of director members compared to the total number of the board of director members in the board of directors listed in the company's annual report. This variable has been used in various previous studies as an independent variable (Yogiswari & Badera, 2019 ; Ginesti et al., 2018 ; Makhlof et al., 2018 ; Ho, et al., 2015 ; Astuti, 2017 ; Dewi & Dewi, 2016 ; Wang, 2015).

Education Level Diversity

This variable is measured by the proportion of members who have higher degrees such as Masters or PhD degrees that have been used by (Darmadi, 2011; Ujunwa, 2012; Makhlof et al., 2018). This study uses the proportion of board members who have advanced degrees such as Masters or PhD with the total number of board members in the company.

Age Diversity

Age diversity in this study was measured by the average age where the proportion of the age of the board members compared to the number of board members. This variable has been used in several previous studies (Makhlof et al., 2018) as an independent variable.

Nationality Diversity

Nationality diversity in this study was measured by the presence or absence of foreign board members on all board members in the company's annual report. Nationality Diversity is calculated using a dummy. If the foreign members

existed, they were a number 1, but if there were not any, they were given a number 0. Previous research used this variable as an independent variable was done by Yogiswari & Badera (2019).

Leverage

This research used total debt to total assets ratio (DAR) as an indicator to measure ratio leverage (Kasmir (2012).

Firm Size

Firm size is the scale of the company seen from the total assets of the company (Kasmir, 2012).

The equation of the research modeling this study used the following equation:

1. $CON_ACC = \alpha + \beta_1 KG_{it} + \beta_2 KTP_{it} + \beta_3 KU_{it} + \beta_4 KK_{it} + \beta_5 LV_{it} + \beta_6 SIZE_{it} + \varepsilon_{it}$
2. $BTM = \alpha + \beta_1 KG_{it} + \beta_2 KTP_{it} + \beta_3 KU_{it} + \beta_4 KK_{it} + \beta_5 LV_{it} + \beta_6 SIZE_{it} + \varepsilon_{it}$

Description:

CON_ACC	= Accrual Base Accounting Conservatism
BTM	= Market Base Accounting Conservatism
α dan β	= Coefficient
KG	= Gender Diversity
KTP	= Education Level Diversity
KU	= Age Diversity
KK	= Nationality Diversity
LV	= Leverage
SIZE	= Firm Size
e	= Error

Descriptive Statistics

Variabel	Minimum	Maximum	Mean	Std. Deviation
CON_ACC	-0.363000	1.193000	0.147351	0.193809
BTM	-2.629000	0.904000	-0.155351	0.446900
KG	0.000000	0.570000	0.113276	0.124349
KTP	0.000000	1.000000	0.408908	0.226109
KU	41.67000	64.67000	53.69477	4.522144
KK	0.000000	1.000000	0.436782	0.497419
LV	0.010000	2.630000	0.616782	0.507264
SIZE	9.660000	30.95000	21.65172	4.573606

Panel data Regression Analysis

Panel Data Regression Model Testing Using Accrual Basis Chow Test

Chow Test Result

Redundant Fixed Effects Tests

Equation : Untitled

Test cross-section fixed effects

Effects Test	Statistic	d. f.	Prob.
Cross-section F	2.201218	(57,110)	0.0002
Cross-section Chi-square	132.431518	57	0.0000

Sumber : data processed (2021)

Hausman Test

Hausman Test Result

Correlated Random Effects – Hausman Test

Equation : Untitled

Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq.d.f.	Prob.
Cross-section random	6.878022	6	0.3323

Source: data processed (2021)

Estimate Result of Random Effect Model

Dependent Variable: SER01

Method: Panel EGLS (Cross-section random effects)

Date: 06/28/21 Time: 21:39

Sample: 20172019

Periods included:3

Cross-sections included:58

Total panel (balanced) observations:174

Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
CON_ACC	-0.098144	0.215100	-0.456273	0.6488
KG	0.348503	0.133835	2.603976	0.0100
KTP	-0.003749	0.072913	-0.051419	0.9591
KU	0.005021	0.003668	1.368696	0.1729
KK	0.069198	0.033806	2.046945	0.0422
LV	0.122413	0.031320	3.908533	0.0001
SIZE	-0.007748	0.003606	-2.148678	0.0331

Based on the table above, equation of panel data regression model was obtained as follows:

$$CON = -0.098144 + 0.348503KG_{it} - 0.003749KTP_{it} + 0.005021KU_{it} + 0.069198KK_{it} + 0.122413LV_{it} - 0.007748SIZE_{it} + \epsilon$$

Hypothesis Test F Test

F Test Result

	Value
F-statistic	6.031161
Prob.(F-statistic)	0.000010

Source : data processed (2021)

Basis on the table, significance value F calculate 0.000000 < $\alpha = 0,05$; which means the model is statistically significant and feasible to use because it is able to predict the value of the observations.

Coefficient of Determination (R^2)

Coefficient of Determination Test Result

Variable	Coefficient of Determination R^2
Similarity	0.178097

Source: data processed (2021)

Based on the table above, the value of the coefficient of determination (R-square) on the estimation results of the random effect model shows a value of 0.178097 or 18%.

These results stated that gender diversity (KG), education levels diversity (KTP), age diversity (KU), nationality diversity (KK), leverage (LV) and firm size (SIZE) as control variables gave an effect of 18% on accounting

conservatism using the accrual basis, while the remaining 82% is influenced by other variables that are not used in this study.

Discussion (Model 1)

Based on the results of the partial significance test (t test) that had been carried out, it showed that gender diversity had a positive and significant effect on accounting conservatism using accrual basis. Thus, the first hypothesis (H_1) was accepted. These results supported agency theory which stated that the presence of female members on the board enhances monitoring mechanisms and coordinate manager's needs and shareholder's needs (Ginesti et al., 2018; Gull, 2018; Ho et al., 2015). Women are more ethical in resisting risk, lean to be more conservative in accounting tasks and have the ability to admit bad news on more punctually reported profit (Ho et al., 2015; Francis et al., 2015). In accordance with the theory that women can increase the effectiveness of the board to monitor management, board diversity is an effective tool for the monitoring process (Ginesti et al., 2018; Gull, 2018). These results supported the view that gender should be considered when assessing and analyzing the quality of accounting information. The results of this study agreed with the research of Makhlof et al (2018), Boussaid et al (2015), Francis et al., (2015), Varadina & Diatmika, (2018), Ho et al., (2015), Piironen (2019) , Suyono (2021) which stated that gender diversity affected accounting conservatism. However, the results of the study reject research (Wang, 2015) that there is no significant effect between gender diversity and accounting conservatism.

The results of the partial significance test (t test) which showed that the diversity of education levels has no effect on accounting conservatism using accrual basis. Thus, the third hypothesis (H_2) was rejected. This result did not in a row the resource dependence theory which stated that the board of members who have higher qualifications such as a PhD or Masters degree will serve as a strategic resource because they have a mix of competencies and capabilities that will assist them in carrying out their duties. Although many infrastructure, utility, and transportation service companies in Indonesia have board members who are highly educated at the Masters or PhD level, that does not guarantee someone will apply accounting conservatism. Therefore, the research findings suggested that this also could not be generalized. Whether or not there is a difference in decision making is not only based on the level of education but also based on characteristics. The running of the company is determined by the people at the top level. These results indicated that the diversity of educational levels was not a problem for accounting conservatism both among board members who are highly educated and not highly educated on accounting conservatism, as long as they are experts in their respective fields. The results of this study rejected Makhlof et al (2018) which stated that the level of education have a positive and significant effect on accounting conservatism.

Age diversity also shows that there is no significant effect on accounting conservatism using accrual basis. Thus, the third hypothesis (H_3) was rejected. This result did not in line the agency theory showing that younger members are more likely to be prepared to assume more risks and to make significant structural changes to increase opportunities of the company's future (Makhlof et al, 2018). This finding supports the research hypothesis which stated that there was a positive correlation between accounting conservatism and the average age of board members. These results indicates that age diversity was not a problem for accounting conservatism, which implies that there was no significant difference between younger and older board members regarding accounting conservatism, as long as they were always motivated to create new and unique ideas for their companies and were prepared to take all risks which existed. The results of this study supported Makhlof et al (2018) whose results showed that age diversity had a positive and insignificant effect on accounting conservatism.

Furthermore, the diversity of nationalities showed that there was a positive and significant effect on accounting conservatism using accrual basis. Thus, the fourth hypothesis (H_4) was accepted. These results supported the resource dependence theory suggesting that foreign members provided extra value to boards and firms by having different skills and experiences. These positive findings indicated that the presence of foreign board members could strengthen the practice of accounting conservatism. In other words, board members who were dominated by foreign members would need higher quality information, so they tended to use more conservative accounting procedures. The results of this study were consistent with the research of Makhlof et al (2018), which stated that national diversity affected accounting conservatism.

The control variables used in this study were leverage and firm size. Based on the results of the partial significance test (t test) that had been carried out, it showed that leverage had a positive and significant effect on conservatism using accrual basis. Based on data processing, these results supported agency theory which stated that managers and creditors had different interests which would lead to conflicts of interest. Managers who got credit would consider leverage. A high leverage ratio could increase the risk of losses that would be faced to be greater. Thus, managers would choose to apply conservative accounting to minimize conflicts and possible risks that could be a impendence to the survival of the

company. The results of this study agreed with Makhlof et al (2018) Dewi & Suryanawa, (2014), Sugiarto & Fachrurrozie (2018), Ursula & Adhivinna (2018), Varadina & Diatmika (2018), Yanti et al (2017), Yuliarti et al (2017) and Zulfiati & Lusiana, (2020) which stated that leverage had a significant positive effect on accounting conservatism. The higher the debt level, the higher the accounting conservatism. In this case, it rejected the research of Hotimah (2018), Noviantari & Ratnadi (2015), Pambudi (2017), Septian & Anna (2014), and Suyono (2021) which showed no significant effect.

Furthermore, firm size also showed a positive and significant effect on accounting conservatism using accrual basis. Based on data processing, these results suggested that large companies were more likely to face greater political risk than small companies, which encouraged large companies to use more conservative accounting practices. The results of this study were consistent with Ginesti et al., (2018), Hotimah (2018), Makhlof et al (2018), Noviantari & Ratnadi (2015), Septian & Anna (2014) and Ursula & Adhivinna 2018) and Hakiki & Solikhah (2019), which was to see its positive influence on accounting conservatism. In this case, it rejected the research of Yuliarti et al. (2017) which showed no significant effects.

Panel Data Regression Model Testing Using Market Basis

After testing the panel data regression model was done by using accrual basis, the second panel data regression model testing was done by using market basis.

Chow Test

Chow Test Result

Redundant Fixed Effects Tests

Equation : Untitled

Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F	3.749658	(57,110)	0.0000
Cross-section Chi-square	187.821004	57	0.0000

Hausman Test

Hausman test Result

Correlated Random Effects- Hausman Test Equation: Untitled

Testcross-section random effects

Test Summary	Chi-Sq.Statistic	Chi-Sq.d.f.	Prob.
Cross-section random	2.674142	6	0.8485

Estimate Result of Random Effect Model

Dependent Variable: BTM

Method: Panel EGLS (Cross-section random effects)

Date: 06/28/21 Time: 23:02

Sample:20172019

Periods included:3

Cross-sections included:58

Total panel (balanced) observations:174

Swamy and Arora estimator of component variances

Variable	Coefficient	Std.Error	t-Statistic	Prob.
C	-0.230517	0.556165	-0.414476	0.6791
KG	0.710417	0.354284	2.005220	0.0466
KTP	-0.238475	0.193153	-1.234642	0.2187
KU	0.000367	0.009449	0.038885	0.9690
KK	-0.042720	0.093585	-0.456480	0.6486
LV	0.275075	0.080087	3.434717	0.0007

SIZE	-0.003627	0.009547	-0.379860	0.7045
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Based on the table above, the panel data regression model equation was obtained as follows:

$$BTMit = -0.230517 + 0.710417KGit - 0.23847KTPit + 0.000367KUit - 0.042720KKit + 0.275075LVit - 0.003627SIZEit + \epsilon$$

Hypothesis Test

Goodness of Fit Test (F Test)

F Test Result	
	Value
F-statistic	3.010047
Prob.(F-statistic)	0.000010

Source: data processed (2021)

Based on the table, it can be seen that the significance value is F = 3.010047 and p <α =0.05; it means that the model was statistically significant and feasible to use because it was able to predict the value of the observations

Coefficient of Determination (R^2)

Coefficient of Determination Test Result	
Variabel	Koefisien Determinasi R^2
Similarity	0.097591

Source: Data processed (2021)

Based on table 4.13 above, the coefficient of determination (R^2) on the estimation results of the random effect model showed a value of 0.097591 or 10%. This result stated that gender diversity (KG), diversity of education levels (KTP), age diversity (KU), nationality diversity (KK), leverage (LV) and firm size (SIZE) as control variables had a 10% effect on accounting conservatism using the accrual basis, while the remaining 90% was influenced by other variables that were not used in this study.

Discussion (Model2)

Based on the results of the partial significance test (t test) that had been carried out, it showed that gender diversity had a positive and significant effect on accounting conservatism using market basis. Thus, the first hypothesis (H_1) was accepted. Based on data processing, as well as accounting conservatism using accrual basis, these results supported agency theory which stated that the presence of female members on the board enhanced monitoring mechanisms and coordinate the interests of managers and the interests of shareholders (Ginesti et al., 2018; Gull, 2018; Ho et al., 2015). The results of this study agreed with the research of Makhlof et al (2018), Boussaid et al (2015), Francis et al.,(2015), Varadina & Diatmika,(2018), Ho et al., (2015), Piironen (2019) , and Suyono (2021) which stated that gender diversity had an effect on accounting conservatism. However, the results of the study rejected Wang's(2015) research which stated that there was no significant effect between gender diversity and accounting conservatism.

The diversity of education levels showed that there was no relationship on accounting conservatism using market basis. Thus, the third hypothesis (H_2) was rejected. Based on data processing, these results did not support the resource dependence theory which stated that the board of directors who had high-level qualifications such as a PhD or Masters degree would serve as strategic resources because they had a combination of competencies and capabilities that would assist them in carrying out their duties. The running of the company was determined by the people at the top level. This result was the same as accounting conservatism using accrual basis which showed that there was no effect on the diversity of education levels. The results of this study rejected Makhlof et al (2018) which stated that the level of education had a positive and significant effect on accounting conservatism.

Age diversity also showed that there was no significant effect on accounting conservatism using market basis. Thus, the third hypothesis (H_3) was rejected. Based on the results of data processing, this result did not support the agency theory stating that younger members were more likely to be ready to take on more risks and to make structural significant changes to increase the company's future opportunities (Makhlof et al., 2018). This was the same as accounting conservatism using accrual basis which showed that there was no effect on age. The results of this study supported

Makhlouf et al (2018) whose results showed that age diversity had a positive and insignificant effect on accounting conservatism.

Furthermore, the diversity of nationalities showed that there was no significant effect on accounting conservatism using market basis. Thus, the fourth hypothesis (H_4) was rejected. In contrast to accounting conservatism using accrual basis, the effect of national diversity on accounting conservatism using market basis did not support the resource dependence theory pointing out that foreign members provided extra value to boards and companies by having different skills and experiences. The findings that had no significant effect indicating that the presence or absence of foreign board members could not ensure that someone applied accounting conservatism. The results of this study rejected the research of Makhlouf et al (2018), which stated that national diversity affected accounting conservatism.

The control variables used are leverage and firm size. Based on the results of the partial significance test (t test) that had been carried out, it showed that leverage had a positive and significant effect on conservatism using market basis. This was the same as the result of conservatism using accrual basis. The results of this study were in line with Makhlouf et al (2018) Dewi & Suryanawa, (2014), Sugiarto & Fachrurozie (2018), Ursula & Adhivinna (2018), Varadina & Diatmika (2018), Yanti et al (2017), Yuliarti et al (2017) and Zulfiati & Lusiana, (2020) which stated that leverage had a significant positive effect on accounting conservatism. Firm size showed that there was no significant effect on accounting conservatism using market basis. It was different with the effect of Firm size on accounting conservatism using accrual basis. Based on data processing, the results of the effect of firm size on conservatism using market basis did not support the agency theory which stated that large companies were more likely to face greater political risk than small companies, which encouraged large companies to use more conservative accounting practices. This study failed to prove the effect of firm size on accounting conservatism using market basis. The size of the company did not ensure that the company applied accounting conservatism. Eventhough the size of the company was larger, it did not lead an increase or decrease to the value of accounting conservatism using market basis. For the size of the company has no effect on the application of accounting conservatism can be caused by the size of the company which is proxied by the natural logarithm of total assets is not too considered by the company to be able to apply accounting conservatism using market basis.

These results were caused by the possibility that not all companies avoided political costs by using the principle of conservatism. Companies would focus more on efforts to show large profits in order to attract the attention of investors, creditors and to gain public trust rather than choosing to use the conservatism method to minimize political costs. These results were in line with the research of Daryatno & Santioso (2020), Ramadhani & Sulistyowati (2019), Yuliarti et al. (2017) and Kalbuana & Yuningsih (2020) which showed no significant effect. The results of this study rejected the results of research by Ginesti et al., (2018), Hotimah (2018), Makhlouf et al (2018), Noviantari & Ratnadi (2015), Septian & Anna (2014) and Ursula & Adhivinna (2018) and Hakiki & Solikhah (2019) to see its positive influence on accounting conservatism.

Summary of Research Results

Hypothesis	Research Results Using Accrual Basis	Research Results Using Market basis
H₁ : Gender diversity has a positive effect on accounting conservatism.	Accepted	Accepted
H₂ : The diversity of education levels has a positive effect on accounting conservatism.	Rejected	Rejected
H₃ : Age diversity has a positive effect on accounting conservatism	Rejected	Rejected
H₄ : Nationality diversity has a positive effect on accounting conservatism.	Accepted	Rejected
H₅ : Leverage has a positive effect on accounting conservatism.	Accepted	Accepted
H₆ : Firm size has a positive effect on accounting conservatism.	Accepted	Rejected

Conclusion

Four characteristics of board members were investigated, all of which were gender diversity, education level, average age and nationality diversity. Accounting conservatism was measured by conservatism using accrual basis and market

basis. Based on the results of analysis and testing regarding the characteristics of the diversity of board members on accounting conservatism using accrual basis and market basis in service companies in the infrastructure, utilities, and transportation sectors in Indonesia, it could be concluded that overall, gender diversity, diversity of education levels, age diversity, nationality diversity, and control variables had a significant effect on accounting conservatism using both accrual basis and market size. Partially, gender diversity, nationality diversity, leverage and firm size as control variables partially had a positive and significant effect on accounting conservatism using accrual basis, while diversity in education level and age diversity had no significant effect on accounting conservatism using accrual basis. In addition, gender diversity and leverage partially had a positive and significant effect on accounting conservatism using market size, while diversity in education level, age diversity, nationality diversity and firm size did not significantly affect accounting conservatism using market size. The results of this study indicated that the effect of accounting conservatism using accrual basis and market basis showed different results.

The implications of this research included two things, which were the theoretical implications and practical implications. Theoretical implications of this study contributed to the literature for the development of theories. Theoretically, this study focused on the influence between the variables in the study and tested them empirically. The positive effect of board diversity on accounting conservatism indicated that board diversity needed to be taken into account to figure out the effectiveness of board members because of the demographic characteristics that influenced the behavior of board members when facing problems, especially problems or issues related to the implementation of accounting principles. This implication is useful for investors to obtain additional information related to investment decisions. The agency is directly related to the promote of board diversity which improves the quality of accounting and transparency of financial reporting. Creditors will consider in making credit decisions to companies. The company can be used in decision making by considering the demographic diversity of the board. Academics can contribute to the development of science, especially in business and finance.

The writer suggested future research to get better results by expanding the object of researching order to describe the level of conservatism as a whole, such as adding manufacturing companies and companies producing raw materials (natural resource managers), by extending research period in order to be able to see trends in the level of accounting conservatism, by considering other independent variables in order to describe better other variables that have relationship with accounting conservatism, and by adding other methods of accounting conservatism in order to obtain more comprehensive results. In this study, there were several limitations, which were the samples used were only limited to service companies in the infrastructure, utilities, and transportation sectors. Therefore, the results were less representative for all companies in Indonesia. The results also could not be generalized to all sectors. Moreover, the observation period was limited to only 3 years, from 2017 to 2019, and the researchers did not examine the influence of other diversity variables that could affect accounting conservatism and affect the credibility of financial statements such as culture and other professional skills.

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