

# DO FEMALE DIRECTORS MODERATE THE ASSOCIATION BETWEEN FINANCIAL REPORTING AGGRESSIVENESS AND TAX AGGRESSIVENESS? A STUDY OF LISTED MINING COMPANIES IN INDONESIA STOCK EXCHANGE

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**DO FEMALE DIRECTORS MODERATE THE ASSOCIATION BETWEEN FINANCIAL REPORTING AGGRESSIVENESS AND TAX AGGRESSIVENESS? A STUDY OF LISTED MINING COMPANIES IN INDONESIA STOCK EXCHANGE**

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**ABSTRACT**

The objective of this study was to analyze the association between financial reporting aggressiveness and tax aggressiveness. The moderating variable of this research was gender diversification in board's structure. This was also addressing to demography of Indonesian Mining Companies that majoritically had more men in on board's structure. This research took the research object at mining firms that listed in Indonesia Stock Exchange in 2012-2017 which have been selected by purposive sampling and transformed into 154 research observations (firm x year). The collected data were analyzed using Pearson correlation test and panel regression with fixed effect model. This research showed that there was a significant positive relation between financial reporting aggressiveness and tax aggressiveness. After adding gender diversification in board's structure as moderating variable, the value of correlation and the value of coefficient of determination ( $R^2$ ) increased. It meant moderating variable strengthened the association between financial reporting aggressiveness and tax aggressiveness. It could be concluded that this study supported the agency theory and the gender scheme theory. The conflict of interest between stakeholders and company and the lack of number of woman on board's structure will strengthen the association of these non ethical bussiness behaviors.

**KEY WORDS**

Financial reporting aggressiveness, tax aggressiveness, directors board gender diversification, mining companies.

One of the corporations goals is making profit as maximum as possible aimed to fulfill deed corporations that might make several decisions for making bussiness keep growing and developing. In order to generate optimum profit, corporations often commit an action which can reduce expenses, for example is avoiding tax expense. Tax avoidance actually is not prohibited and even still permitted as long as still following the rule established by tax constitution. But sometimes, tax avoidance committed aggressively or called tax aggressiveness (Frank, et.al 2009) could lead into tax evasion,

On the other hands, to restore the good reputation, like keeping the accountability for investor and debt covenant extension for creditors (Dyrenge, 2009), an *overstatement* to makes financial performance seems accountable. To e make financial report seems better, earning management practice can be applied. An aggressive earning management practice could disclose financial reporting inapropriately and causes many disadvantage for stakeholders. This unethical bussiness behavior is called financial reporting aggressiveness (Frank, et.al 2009).

Based on the trade off theory (Brigham & Gapenski, 1999), financial reporting aggressiveness and tax aggressiveness was impossible to apply simmultaneously because both of these behaviors are contradictory. Financial reporting aggressiveness employs overstatement as the main principal or exaggerats profit disclosure while tax aggressivity does the opposite,.

Because company cannot execute financial reporting aggressiveness and tax aggressiveness simultaneously, it is necessary to do a book tax trade off or exchange company's first decision carried out in certain period, whether the tax aggressiveness or the financial reporting aggressiveness is prioritized, depending on the interest to be achieved.

However, Frank et al. (2009) stated that companies should not do a book-tax trade off since companies are subjects which can distinguish goals from income calculations both earnings reporting decisions and tax payments. This was also supported by Hashim et al. (2016) stating that there is a positive relation between financial reporting aggressiveness and tax aggressiveness. This meant, the absence of book-tax trade off was assumed to occur due to the increasing number of loop holes that companies can take advantage of the differences in accounting principles and tax regulations.

Referring to the Ministry of Finance, tax aggressiveness and financial reporting aggressiveness are found in the mining sector. In 2012, the targeted income tax revenue from mining sector was IDR 140.9 trillion but only realized IDR 43.8 trillion or only 30.8% of the revenue target and 70.2% of income tax while the income from the mining sector was lost. This was also supported by the effective tax rate of mining companies in Indonesia in 2012-2017 which was quite low, indicating the act of tax aggressiveness.

A number of cases of financial reporting aggressiveness were also encountered together with aggressive financial behavior, for example in 2012, PT Anchora Mining Service revealed its income of IDR 34.9 billion (overstatement) while there was no debt recognition, but there was evidence of interest of IDR 18 billion, and proof of transaction of IDR 5.3 billion but is unclear to what for. Then in the first semester of 2015, PT Timah announced at the press conference that its financial performance was good, even though there were losses on operating revenues of IDR 59 billion. Still in the same year, PT Medco E & P Indonesia was also reportedly to manipulate financial reports in calculating cost recovery which ultimately reduced the amount of revenue-sharing funds received by the government.

In Indonesia, the composition of the board of directors in mining companies are still dominated by men. Based on the empirical evidence (Francis et al., 2014; Oyenike & Olayinka, 2016; Torgler & Valev, 2010; Zemzem & Ftouhi, 2013), it is revealed that proportional composition can be a factor to determine the level of unethical business behaviour such as financial reporting aggressiveness and tax aggressiveness. Men are still considered as risk taker in decision-making process while women are more obedient in the regulations and engage in less fraud as well (Wahid, 2018). The results of the study showed that a large percentage of women on board of directors will reduce the act of financial reporting aggressiveness and tax aggressiveness and vice versa.

From the explanations above, this study discussed the correlation between financial reporting aggressiveness and tax aggressiveness moderated by gender diversification in board's structure or in other words the percentage of woman directors in the board. The addition of gender diversification in boards' structure as moderating variable differs this study from previous ones. Therefore, this study is expected to innovate and add insights more clearly about financial reporting aggressiveness and tax aggressiveness behaviour. To avoid the dependent variable influenced by not determined factors, this study adds ROA and size as control variables.

## LITERATURE REVIEW

Agency theory (Jensen and Meckling, 1976) explained that there was a conflict of interest between principal (government, investors and creditors) and agency (company) due to different motives. The agency tried to do many profitable things even though this does not reflect the actual business activity in the company. This contradicts to principal purpose which needs transparency and accountability.

In this case, the conflict of interest is realized when the agency has manipulated financial reporting aggressiveness to investor and creditor, following by tax aggressiveness that can burden the government. This supported Frank et al., (2009) opinion that company was an object which could decide to execute business even though involving unethical behaviours such as financial reporting aggressiveness and tax aggressiveness without concerning trading off between them. In other words, there is a conflict of interest that the company will make any effort without regarding to the stakeholders' (principals) interests,

namely maximizing the company's profits assisted by financial reporting aggressiveness and tax aggressiveness.

Gender scheme theory was officially introduced by Bem (1981) as a cognitive theory to explain how individuals were classified in certain genders in society, and how characteristics related to gender were fostered and passed on to other members of a culture. Most gender-related information was channeled by community through "schemes", or information networks that allow some information to be easier to understand. Gender schemes could be defined as perceptions and processes of learning on behavior and attributes that were in accordance with their sex or according to labels given by the community, culture, and environment around them (Bem, 1981). Consequently, it can be understood that gender is not always related to its role. It is the environment and culture that actually make gender an essential process of understanding (cognition) among various existing social classifications: ethnicity, religiosity, and race (Bem, 1981).

Based on the views above, it can be concluded that gender is a concept formed by social communities which generally classify feminine and masculine characteristics that influence the formation and division of roles for men and women in society. However, the growth of civilization has modified the concept of formation and division of roles.

This assumes that according to the stigma in society still strongly stuck with patriarchal culture men are still considered as the dominant gender. They are traditionally still considered as masculine, risk taker, and more rational. For the association between financial reporting aggressiveness and tax aggressiveness, men are still considered capable to make the relation stronger while women will be more obedient, emotional, and risk adverse to the unethical behaviors. Therefore, based on this theory, gender diversification in board's structure is capable to moderate the association between financial reporting aggressiveness and tax aggressiveness.

Hashim et al. (2016) examined whether there is an association between financial reporting aggressiveness proxied by accounting irregularities (accounting deviations) and tax aggressiveness. The results showed that accounting irregularities had a positive effect on tax aggressiveness, meaning that it will increase tax reporting aggressiveness. A positive relationship between tax aggressiveness and financial reporting aggressiveness confirmed its existence (Frank et al., 2009). It can be said that if the business entity conducts tax aggressiveness, the financial statements will also be manipulated.

Kamila and Martani (2014) agreed that the relationship between tax aggressiveness and financial reporting aggressiveness related to both directions. In other words, the financial aggressiveness can affect tax aggressiveness and tax aggressiveness can affect financial reporting aggressiveness. This was understood because financial reporting aggressiveness and tax aggressiveness tend to be the same in which one control in financial reporting aggressiveness carried out to minimize the burden was the taxation strategy.

Different from Hashim et al., Frank et al., and Kamila and Martani, Lennox et al. (2013), and Erickson et al. (2004) found that company's tax aggressive tended to avoid financial reporting fraud in the United States, and Erickson et al. (2004) showed that company complied to pay taxes on fraudulent profits to avoid fraudulent identification on their financial reporting.

Francis et al. (2014) investigated whether there was an influence of the CFO gender on corporate tax aggressiveness. By using the probability of tax sheltering, it could be concluded that the women CFO is less aggressive than the men CFO measured from the CFO turnover period (from the men CFO to the women CFO).

Oyenike and Olayinka (2016) examined the influence of woman leaders on tax aggressiveness. The results proved that there was an influence of woman leaders on tax aggressiveness. Zemzem and Ftouhi (2013) showed that board size and percentage of female leaders influenced tax aggressiveness. Boussaidi and Hamed (2015) showed that the mechanism of leadership i.e., gender and board size influenced the actions of tax aggressiveness.

Enofe et al. (2017) also confirmed that there was a negative relationship between gender diversification on the board of directors and the financial reporting aggressiveness.

The proxy applied was the percentage of women composition in board's structure. Enofe et al. (2017) also suggested that 1/3 of the total board members should be women so that the actions of financial reporting aggressiveness can be avoided.

This was also approved by Lakhali (2015) and (Wahid, 2018) that, at least, there should be three women in board's structure because women are considered as crucial corporate governance device and better watchdog (better monitoring party) for financial aggressiveness behaviour and less involved in earning manipulation as well. Arun et al. (2015) conducted a similar study to differentiate high debt companies and low debt companies. As a result, woman directors had a positive effect on earnings management in low-debt companies. Also, the presence of woman in board of directors will decrease income.

## HYPOTHESIS

From the theoretical foundation and previous studies, it can be hypothesized that there is a relationship between financial reporting aggressiveness and tax aggressiveness. This disputed the tradeoff concept which stated that a company had to choose one of these behaviour (Frank et al., 2009; Hashim et al., 2016; Kamila & Martani, 2014). Therefore, the hypotheses were as follows:

H1: Financial reporting aggressiveness had a positive correlation with tax aggressiveness.

It can be summarized that the presence of women on the boards of directors will lower down tax aggressiveness and financial reporting aggressiveness while men will be more aggressive in tax aggressiveness and financial reporting aggressiveness because they tended to be brave in taking risks (Boussaidi & Hamed, 2015; Enofe, 2017; Francis et al., 2014; Lakhali, 2015; Oyenike & Olayinka, 2016). Hypothesis 2 stated that gender diversification in board's structure can strengthen or weaken the correlation between financial reporting aggressiveness and tax aggressiveness. The dependent variable was not influenced by not examined factors, this study added ROA and size as a control variables.

H<sub>2</sub>: Gender diversification in board's structure moderated the correlation between financial reporting aggressiveness and tax aggressiveness.

## METHODS OF RESEARCH

This study was a quantitative research. Data were collected from annual financial statements from 2012 to 2017. This study used secondary data obtained from financial reports and company annual reports that used to be the object of research. The data is collected from the official website <http://www.idx.co.id> or the company's official website.

The population of this study were mining companies listed on the Indonesia Stock Exchange in 2012-2017 with a total of 247 research objects (firm x year). This study used purposive sampling method for selecting samples and applying the unbalanced data panel method with criteria:

1. Mining sector companies that are listed on the Indonesia Stock Exchange for 2012 to 2017 and not delisted.
2. Publishing both financial reports and annual reports in accordance with the research variables.
3. Mining companies that made a profit during the research period aimed to see the practice of financial reporting aggressiveness.

From those criteria above, 154 research objects (firm x year) were chosen as research samples. Tax aggressiveness as the dependent variable was proxied by the Effective Tax Rate (ETR). ETR is the results of the calculation of tax expense divided by pre-tax income. While the independent variable was financial reporting aggressiveness proxied by irregularities index (AI) also known as M Score developed by (Beneish, 1999). This was different from previous study financial reporting aggressiveness was often measured using Modified Jones Model (Frank et al., 2009; Kamila & Martani, 2014) developed by Dechow

et.al(1995). Accounting irregularities index was a combination of financial ratios considered more accurate to detect financial reporting aggressiveness (Hashim et al., 2016).

The eight financial ratios were: Gross Margin Index (GMI), Days Sales Receivable Index (DSRI), Asset Quality Index (AQI), Depreciation Index (DEPI), Selling General and Administrative Expense Index (SGAI), Sales Growth Index (SGI), Leverage Index (LVGI), and Total Accruals to Total Assets (TATA). Those ratios were calculated using the following formula which forms accounting irregularities index (M Score):

$$AI = -4,84 + 0,92 DSRI + 0,528 GMI + 0,404 AQI + 0,892 SGI + 0,115 DEPI - 0,172 SGAI + 4,679 TATA - 0,327 LVGI$$

Formula to measure those eight ratios are in Table 1:

Table 1 – Eight Ratios of Accounting Irregularities Index

DSRI	$\frac{Net\ Reicevable(t)/Sales\ (t)}{Net\ Reicevable\ (t-1)/Sales\ (t-1)}$
GMI	$\frac{Gross\ Income(t-1)/Sales(t-1)}{Gross\ Income\ (t)/Sales(t)}$
AQI	$\frac{1 - \frac{Current\ Asset\ (t)+Fixed\ Asset\ (t)}{Total\ Asset\ (t)}}{1 - \frac{Current\ Asset\ (t-1)+Fixed\ Asset\ (t-1)}{Total\ Asset\ (t-1)}}$
DEPI	$\frac{Depreciation\ (t-1)}{\frac{Depreciation\ (t-1)+Fixed\ Asset\ (t-1)}{Depreciat\ ion\ (t)}}$
SGAI	$\frac{SGA/Sales\ (t)}{SGA/Sales\ (t-1)}$
SGI	$\frac{Sales\ (t)}{Sales\ (t-1)}$
LVGI	$\frac{[(Current\ Liabilities\ (t)+Total\ Long\ Term\ Debt\ (t)) / Total\ Assets\ (t)]}{[(Current\ Liabilities\ (t-1)+Total\ Long\ Term\ Debt\ (t-1)) / Total\ Asset\ (t-1)]}$
TATA	$\frac{Income\ from\ operating\ (t) - Cash\ flows\ from\ operating\ (t)}{Total\ Asset\ (t)}$

Source: Beinesh, 1999.

Gender diversification in board's structure was measured by the presence of women within. The control variables of this study were company's size and profitability to reduce the impact of error factors from nor examined variables. Size was measured from the natural logarithm of total assets(Zimmerman, 1983). Profitability was proxied by return of assets (ROA)and measured by dividing net income with total assets (Chen et.al, 2010).

Correlation analysis and data panel regression were used as the analytical method. The models used in this research were:

$$ETR_{i,t} = \alpha_0 + \alpha_1 AI_{i,t} + \alpha_2 SIZE_{i,t} + \alpha_3 ROA_{i,t} + \epsilon_{i,t} \quad \text{Model 1}$$

$$ETR_{i,t} = \alpha_0 + \alpha_1 AI_{i,t} + \alpha_2 SIZE_{i,t} + \alpha_3 ROA_{i,t} + \alpha_4 AI.DivGender_{i,t} + \epsilon_{i,t} \quad \text{Model 2}$$

Where: ETR = *Effective Tax Rate*; AI = *Accounting Irregularities Index*; DivGender = *Gender Diversification in Board's Structure*; Size = *Company's Size*; ROA = *Return of Assets*;  $\alpha_0$  = constant; i = company-I; t = company's year period;  $\alpha_1 - \alpha_4$  = coefficient;  $\epsilon$  = error factor.

## RESULTS OF STUDY

Multicollinearity was used to find out whether there was an association between independent variables and control variables(Sujarweni, 2016). If the correlation value in

independent variable and control variable <0.8, multicollinearity will not occur. The results of multicollinearity can be seen in table 2 below:

Table 2 – Multicollinearity Test Result

	AI	SIZE	ROA	AI*DIVGEN
AI	1.000000	-0.007806	0.024633	0.074862
SIZE	-0.007806	1.000000	0.365509	-0.160664
ROA	0.024633	0.365509	1.000000	0.051029
AI*DIVGEN	0.074862	-0.160664	0.051029	1.000000

Source: output E-views 10.0 (2019).

Table 2 shows that all independent variables and control variables have a value <0.8. It concludes that there are no multicollinearity problems between independent variables and control variables.

To determine the proximity degree of the relationship between independent variable (financial reporting aggressiveness) and dependent variable (tax aggressiveness), Pearson correlation analysis was used (Sujarweni, 2016). The results of the Pearson correlation test are as follows:

Table 3 – The Association Between Financial Aggressiveness and Tax Aggressiveness

Correlation Probability	ETR	AI
ETR	1.000000 ----	
AI	0.699704 0.0000	1.000000 ----

Source: output E-views 10.0 (2019).

Table 4 below shows the results of Pearson correlation test after adding gender diversification in board's structure as moderating variable:

Table 4 – The Association Between Financial Aggressiveness and Tax Aggressiveness Moderated by Gender Diversification in Board's Structure

Correlation Probability	ETR	AIDIVGEN
ETR	1.000000 ----	
AIDIVGEN	0.757146 0.0000	1.000000 ----

Source: output E-views 10.0 (2019).

Based on the results of the Pearson correlation test, model 1 is 0.699704 and model 2 is 0.757146. The value of correlation between 0.60 and 0.799 is categorized as strong (Sujarweni, 2016). Therefore, it can be concluded that there is an association between financial reporting aggressiveness and tax aggressiveness which is positively significant and strengthened by the gender diversification in board's structure because the association level increases from 0.699704 to 0.757146.

The regression method employed was data panel regression. This was because it combined data between cross section and times series. Unlike normal regression, data panel regression had several steps to determine the best estimation model. To determine the best model between common effect models, fixed effects, and random effects models, there were several tests to do:

Table 5 – DeterminationTest Result

	Model 1 (p-value)	Model 2 (p-value)
Chow Test Result	0.0016	0.0017
Hausman Test Result	0.0000	0.0000

Source: output E-views 10.0 (2019).

1 Table 5 above shows that for model 1, p-value <0.05 or 0.0016 <0.05 and for model 2, p-value <0.05 or 0.0017 <0.05. So, the fixed effect model was better than the common effect model for both model 1 and model 2.

From the test result 1 above, it could be seen that for model 1, p-value <0.05 or 0.0000 <0.05 and for model 2, p-value <0.05 or 0.0000 <0.05. Thus, the fixed effect model was better than random effect model for both model 1 and model 2. Based on the results of Chow test and Hausman test on model 1 and model 2, the best data panel regression model was fixed effect model, so it was no need to test Lagrange Multiplier anymore. Therefore, it can be concluded that the best model for this study was the fixed effect model.

Table 6 – The Result of Panel Data Regression Analysis with Fixed Effect Model

	Model 1	Model 2
6 C	0.211179	0.212021
(p-value)	(0.01919)	(0.0192)
AI	0.12486	0.12557
(p-value)	(0.0101)	(0.0106)
SIZE	-0.010250	-0.009969
(p-value)	(0.5229)	(0.5418)
ROA	0.251431	0.248423
(p-value)	(0.8131)	(0.8159)
AI*DIVGEN		0.26896
(p-value)		(0.009920)
R <sup>2</sup>	0.267071	0.267111
Adj. R <sup>2</sup>	0.104198	0.099242
F-Statistic	1.639752	1.591190
(Prob F-Statistic)	(0.015774)	(0.021027)

Source: output E-views 10.0 (2019).

Based on the results of panel data regression in table 6, the regression models in this study are:

$$\text{Model 1 - } ETR_{i,t} = 0,211179 + 0,12486AI_{i,t} - 0,010250SIZE_{i,t} + 0,251431ROA_{i,t} + \varepsilon;$$

$$\text{Model 2:- } ETR_{i,t} = 0,212021 + 0,12457AI_{i,t} - 0,009969SIZE_{i,t} + 0,248423ROA_{i,t} + 0,26936AI*DIVGEN + \varepsilon.$$

Table 6 shows that probability F statistic's significances are 0.015774 for model 1 and 0.021027 for model 2. It means regression models can be used, so the models are able to test the significance of statistical test t or individual parameters.

Determination coefficient (R<sup>2</sup>) of panel data regressions model 1 is 0.267071. It means 26.7071% of tax aggressiveness varians can be explained by independent and control variable. While the remainder of 73.2929% is explained by other variables that is not examined. Moderating variable added on model 2 increases determination of coefficient (R<sup>2</sup>) of 0.267111, meaning to explain dependent variable for 26.7111%. While the remainder of 73.3889% is explained by other variable that is not included as well.

The regression coefficient of financial reporting aggressiveness presents a positive direction of 0.12486 with a significance value of 0.01919 that lower than 0.05 (0.01919 <0.05) so that H<sub>1</sub> is accepted. It means, the higher the level of financial reporting aggressiveness, the higher the level of tax aggressiveness. This is also followed by Pearson correlation on the previous test with value of 0.699704. Different with Lennox et al.(2013) and Erickson et al.(2004), this result is consistent with the previous studies presenting that there



is an association between financial reporting aggressiveness and tax aggressiveness with positive direction (Frank et al., 2009; Hashim et al., 2016; Kamila & Martani, 2014).

This result also supports agency theory (Jensen & Meckling, 1976) stating the the conflict of interest will drive agency (company) to make profitable decisions even though it does not follow applicable regulation, namely tax regulation and accounting principal. Also, it does not comply book-tax tradeoff rules where the highlevel of financial reporting aggressiveness is simultaneously follows by the high level of tax aggressiveness too.

The result in model 2 shows that there are positive direction in regression coefficients where AI\*DIVGEN had a value of 0.26896 with a significance value of 0.009920 ( $0.009920 < 0.05$ ). Gender Diversification in board's structure as a moderating variable (AI\*DIVGEN) had a positive effect on the association between financial reporting aggressiveness and tax aggressiveness, so that the second hypothesis ( $H_2$ ) is accepted.

It can be interpreted that the smaller the number of women in board's structure, the higher the level of correlation between financial reporting aggressiveness and tax aggressiveness. In other words, the correlation of these variables is strengthened. This result supported previous studies that the presence of women in governance and their involvement in board's structure will increase non ethical business behaviour and *vice versa* (Francis et al., 2014; Lakhal, 2015; Lestari & Wardhani, 2015; Oyenike & Olayinka, n.d.; Wahid, 2018).

This result was also in accordance with gender scheme theory (Bem, 1981) which stated that gender categorization is determined by the surrounding environment. This related to Indonesian culture, demographic factors, and patriarchy's point of view that still assume men are the dominant risktaker and brave, while women are still considered as more comply for following the rules.

For control variables, it can be interpreted from size and ROA value. It can be seen that regression coefficients of size are -0.010250 for model 1 and -0.009969 for model 2 with negative direction. It can be interpreted that the larger the company the lower the tax aggressiveness level. It means the larger the mining company, the more it complies for tax regulation to not implement tax aggressiveness Zimmerman (1983) and Kamila & Martani (2014).

The regression coefficients of ROA is 0.251431 for model 1 and 0.248423 for model 2. It means, the bigger the profitable mining company, the more the tax aggressiveness behaviour occurred (Chen et al., 2010). However, p-value for regression coefficients of size and ROA are higher than 0.05 which means the control variables do not explain independent variable significantly.

## CONCLUSION

Based on the results of the association between financial reporting aggressiveness and tax aggressiveness moderated by gender diversification in board's structure, it can be concluded that: there is a correlation between financial reporting aggressiveness and tax aggressiveness with positive direction in mining companies during 2012 to 2017 with control variable size and profitability. This study supports Hashim et al., (2016) that there is no trade-off between financial reporting aggressiveness and tax aggressiveness. Gender diversification in board's structure can moderate the correlation between the financial reporting aggressiveness and tax aggressiveness. The lower the percentage of women in the board of directors in mining companies, the stronger the relationship between these two unethical business behaviours.

There are several limitations in this study. It is expected that the next future researchs will expand the scope of research in other sectors such as plantation, property, and chemicals production. Also, they can add the dependent variables or other control variables so that the value of R square and Pearson correlation can increase.

Further researchers are also encouraged to redevelop research by combining variables relating to other unethical business behaviours, or moderating variables that can strengthen the relationship between dependent variable and independent variable such as audit tenure, ethnicity, religion or age.

## REFERENCES

1. Arun, T. G., Ebrahim, Y., & Ali-aribi, Z. (2015). Article Female Directors and Earnings Management: Evidence from UK companies. *International Review of Financial Analysis*, 39, 137–146. Retrieved from <http://clck.uclan.ac.uk/11691/>
2. Bem, S. L. (1981). Gender schema theory: A cognitive account of sex typing. *Psychological Review*, 88(4), 354–364. Retrieved from <http://dx.doi.org/10.1037/0033-295X.88.4.354>
3. Beneish, M. D. (1999). The Detection of Earnings Manipulation. *Financial Analysts Journal*, 55(5), 24–36. <https://doi.org/10.2469/faj.v55.n5.2296>
4. Boussaidi, A., & Hamed, M. S. (2015). the Impact of Governance Mechanisms on Tax Aggressiveness: Empirical Evidence From Tunisian Context. *Issn*, 5(1), 2309–8295. <https://doi.org/10.18488/journal.1006/2015.5.1/1006.1.1.12>
5. Brigham, E. F., & Gapenski, L. C. (1999). *Financial Management: Theory And Practice*. San Diego: Harcourt Publisher.
6. Chen, S., Chen, X., Cheng, Q., & Shevlin, T. (2010). Are Family Firms more Tax Aggressive than Non- family Firms? *Journal of Financial Economics*, 95(1), 41–61. <https://doi.org/10.1016/j.jfineco.2009.02.003>
7. Dechow, P. M., Sloan, R. G., & P., S. A. (1995). Detecting Earnings Management. *The Accounting Review*, 70(2), 193–225.
8. Dyreng, S. D. (2009). The Cost of Private Debt Covenant Violation. Working paper, Duke University, North Carolina. Retrieved from <https://ssrn.com/abstract=1478970>
9. Enofe, A. O. (2017). Board Ethnicity , Gender Diversity and Earning Management: Evidence from Quoted Firms in Nigeria. *International Journal of Economics, Commerce and Management*, V(6), 78–90.
10. Erickson, M., Hanlon, M., Maydew, E. L., Erickson, M., Hanlon, M., & Maydew, E. L. (2004). How Much Will Firms Pay for Earnings That Do Not Exist? Evidence of Taxes Paid on Allegedly Fraudulent Earnings. *The Accounting Review*, 79(2), 387–408.
11. Francis, B. B., Hasan, I., Wu, Q., & Yan, M. (2014). Are Female CFOs Less Tax Aggressive? Evidence from Tax Aggressiveness. *The Journal of the American Taxation Association*, 36(2), 171–202. <https://doi.org/10.2308/atax-50819>
12. Frank, M. M., Lynch, L. J., & Rego, S. O. (2009). Tax reporting aggressiveness and its relation to aggressive financial reporting. *Accounting Review*, 84(2), 467–496. <https://doi.org/10.2308/accr.2009.84.2.467>
13. Hashim, H. A., Ariff, A. M., & Amrah, M. R. (2016). Accounting Irregularities and Tax. *International Journal of Economics, Management and Accounting*, 1(1), 1–14.
14. Jensen, M. C., & Meckling, W. H. (1976). Theory of The Firm: Managerial Behavior, Agency Costs and Ownership Structure. *Journal of Financial Economics*, 3, 305–360.
15. Kamila, P. A., & Martani, D. (2014). Analisis hubungan agresivitas pelaporan keuangan dan agresivitas pajak. *Simposium Nasional Akuntansi (SNA) XVII "Peranan Akuntan Dalam Mewujudkan Pembangunan Berkelanjutan Melalui Pelaporan Terintegrasi"*, Nusa Tenggara Barat, 24 – 27 September 2014.
16. Lakhali, F. (2015). Do Women On Boards And In Top Management Reduce Earnings Management? Evidence In France. *The Journal of Applied Business Research*, 31(3), 1107–1118.
17. Lennox, C., Lisowsky, P., & Pittman, J. (2013). Tax Aggressiveness and Accounting Fraud. *Journal of Accounting Research*, 51(4), 739–778. <https://doi.org/10.1111/joar.12002>
18. Lestari, N., & Wardhani, R. (2015). The effect of the tax planning to firm value with moderating board diversity. *International Journal of Economics and Financial Issues*, 5(1), 315–323. <https://doi.org/10.1506/car.26.1.1>
19. Oyenike, O., & Olayinka, E. (2016). Female Directors and Tax Aggressiveness of Listed Banks in Nigeria. In *The 3rd International Conference on African Development Issues (CU-ICADI 2016)*, 3, (pp. 293–299). Ota, Nigeria: Covenant University. Retrieved from <http://eprints.covenantuniversity.edu.ng/6673/1/icadi16pp293-299.pdf>

20. Sujarweni, V. W. (2016). *Penelitian Akuntansi dengan SPSS*. Yogyakarta: Penerbit Pustaka Baru Press.
21. Torgler, B., & Valev, N. T. (2010). Gender and public attitudes toward corruption and tax evasion. *Contemporary Economic Policy*, 28(4), 554–568. <https://doi.org/10.1111/j.1465-7287.2009.00188.x>
22. Wahid, A. S. (2018). The Effects and the Mechanisms of Board Gender Diversity: Evidence from Financial Manipulation. *Journal of Business Ethics*, Forthcoming Rotman School of Management Working Paper No. 2930132, 7(28), 1–21.
23. Zemzem, A., & Ftouhi, K. (2013). The Effects of Board of Directors' Characteristics on Tax Aggressiveness. *Research Journal of Finance and Accounting*, 4(4), 2222–2847.
24. Zimmerman, J. L. (1983). Taxes and Firm Size. *Journal of Accounting and Economics*, 5, 119–149. Doi:10.1016/0165-4101(83)90008-3, 5(2), 119–149.

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