

CEO overconfidence, tax avoidance, and education foundation

Kurnia Indah Sumunar*, Luluul Jannah, Darlin Aulia

Accounting Department, STIE Media Nusantara Citra, Jakarta, Indonesia

*Corresponding author e-mail: kurnia.indah@stiemnc.ac.id

ARTICLE INFO

Article history:

Available online

Keywords:

CEO overconfidence, tax avoidance, education foundation

DOI:

<https://doi.org/10.20885/jaai.vol23.iss2.art4>

ABSTRACT

Companies use tax avoidance to maximize after-tax income. This study examines whether CEO overconfidence has a positive effect to tax avoidance, and whether education foundation as a moderating variable strengthens or weakens that effect. Many studies on tax avoidance only focus on CSR activities in general and do not analyze the role of CEO in decision making. Using panel datasets from 305 companies in Indonesia from 2013-2017 that obtained from Thomson Reuters, the results show that CEO overconfidence has a significant positive effect on tax avoidance, and education foundation weakens the positive effect of CEO overconfidence on tax avoidance. With the role of CEO overconfidence, companies will do tax avoidance because CEO overconfidence can use their strong policy preferences to make decisions.

Introduction

Management engages tax avoidance with the purpose to minimize tax payments, hence it can be beneficial for management and can maximize the interests of shareholders (Dyreng et al., 2010). The existence of tax avoidance carried out by companies is inseparable from the role of the CEO which is one of the important elements for the company to maximize the interests of shareholders. The CEO is the key management responsible for the policies taken by the company. One of the characteristics of the CEO is overconfidence, that is personal characteristics that describe the tendency of individuals to have better abilities and judgments (Hirshleifer et al., 2012) and tend to overestimate company performance in the future (Malmendier & Tate, 2005). Therefore, CEO overconfidence is often involved in tax avoidance activities because it can help alleviate the company's tax burden and to provide more financial resources in corporate investment projects (Hsieh et al., 2018).

This research is important to do because until now there are still many companies that engage tax avoidance activities. Many companies try to reduce the amount of costs that are not allowed by the Taxation Law (Mao, 2019). Reducing on costs is also supported by the Corporate Social Responsibility (CSR) activity which increases rapidly (Goerke, 2019). With the existence of CSR activities, companies will spend a lot of cost in order to reduce profits and pay less taxes. Aryanti and Hananto (2013) found that fees that are not allowed as a deduction from taxable income are transferred to allowable costs as a deduction from taxable income. One of those fees is the cost of donating education activities. The government budget allocation for education is high, consequently it can attract the private sector to enter the education business, one of which is education foundation. Data on the Central Bureau of Statistics shows that there are 47 foundations that owned by company out of a total of 380 registered educational foundations. There are many business in education sector, consequently there are a lot of opportunities for tax avoidance to be greater (Kuncoro & Pratama, 2017).

The purpose of this study is to examine whether CEO overconfidence has an effect on tax avoidance with education foundation as a moderating variable. This study uses panel data that obtained from Thomson Reuters database with a sample of 305 companies in Indonesia from 2013 to 2017. The contribution in this study is to add the literature on tax avoidance. First, this study uses educational foundation as a moderating variable. Second, this study uses CEO variables by measuring the level of overconfidence. Third, this study uses a sample of companies in Indonesia.

Literature Review

Theory overview

Agency theory developed by Jensen and Meckling (1976) discusses the interests of owners and company executives are often out of consistent. Hanlon and Heitzman (2010) found that the implication of agency theory for tax

avoidance is the existence of two perspectives in assessing tax avoidance activities within the framework of agency theory. The first perspective, there is harmony between management and principals. Minimizing tax payments is a useful activity for management and aims to maximize the interests of shareholders. Minimizing tax payments will produce cash flow that can increase shareholder wealth. Thus, shareholders must provide attractive incentives in order to ensure the company's tax policy becomes effective (Hanlon & Heitzman, 2010).

The second perspective, agency theory sees a difference in interests between management and company owners. This perspective is illustrated by Desai and Dharmapala (2006) by proposing a situation where managers are interested in maximizing their own interests by controlling the payment of corporate taxes. After that, the manager will divert company resources for personal gain. Therefore, the incentives provided by shareholders are in line with the tax authority, which is aimed at reducing the transfer of company resources to managers (Hanlon & Heitzman, 2010)

Corporate culture theory suggests that society can trust the organization to act equitably in its own interest to protect its valuable reputation (Buckley et al., 1996). CSR exerts a negative effect on tax avoidance (Lanis & Richardson, 2013). Company that engage in CSR activity because of the corporate culture tend to consider not only the interests of shareholders, but also the impact of their business activities on economies, societies, and environments.

Upper-echelon theory is that experience, values, and executive personality have an influence to take a choice (Hambrick, 2007). According to upper-echelon theory, CEO characteristics that is overconfidence can affect the company's tax reporting policy (Olsen & Stekelberg, 2016). CEOs are associated with lower effective tax rates, indicating that companies with narcissistic CEOs are more likely to be involved in tax avoidance activities (Olsen & Stekelberg, 2016).

CEO Overconfidence

According to Malmendier and Tate (2005), CEO overconfidence is a CEO who has a tendency that has better characteristics in terms of ability, judgment, skill, and level of success. Previous literature illustrates that CEO overconfidence as the tendency of CEO to overestimate the company's future performance (Malmendier & Tate, 2005). When CEO overconfidence decides to make a decision, it will be influenced by the CEO's personal characteristics. CEO overconfidence will play an important role in corporate decision making and policy.

The Effect of CEO Overconfidence and Tax Avoidance

CEO overconfidence is a CEO who has a tendency that has better characteristics in terms of ability, judgment, skill, and level of success. The existence of CEO overconfidence in the composition of the company's directors is expected to influence the policies taken by the company, such as CEO overconfidence can influence a company's tax reporting policy. Olsen and Stekelberg (2016) found that CEO narcissism was associated with a lower effective tax rate, indicating that companies with narcissistic CEO were more likely to be involved in tax avoidance activities. They also argue that narcissistic CEO tend to report higher uncertain tax benefits as evidence of tax evasion.

Hsieh et al. (2018) found that CFO overconfident may have more successful interactions with CEO overconfident to affect companies' tax-avoidance policy due to their goal congruence. Specifically, with the guidance from CEO overconfident, CFO overconfident could be more motivated than CFO non-overconfident to execute the CEO's guidance and engage in such activities because the CEO's guidance is likely to be consistent with the CFO's own expectations of the company's business strategy.

There may be various techniques for companies with overconfident CEOs to engage in tax-avoidance activities. For example, CEO overconfident engage in more international mergers and acquisitions, especially in nations or regions with lower tax rates (Ferris et al., 2013). Company can reduce tax liabilities and may serve as a tool for CEO overconfident to satisfy the investment ambitions and to avoid paying more taxes on the company profits. Then the hypothesis is tested:

H1: CEO overconfidence has a positive effect on Tax Avoidance

The Effect of CEO Overconfidence, Tax Avoidance, and Education Foundation

CSR is gaining more attention. One of the reasons, with the CSR activity, company can reduce tax paying. Companies will spend a lot of cost hence they can reduce profits and pay less taxes (Goerke, 2019). Graham et al. (2014) suggest that when determining tax avoidance strategies, tax managers are sensitive to the potential negative reputation and the sanction risk. If the positive reputation gained from CSR activity can reduce the level of the negative reputation and the sanction risk, company will have an incentive to increase CSR activities to avert the outcomes resulting from tax avoidance. Thus, CSR increases firms' tax avoidance tendency.

Besides that, company engages CSR activity with allocate the fund to make an education foundation. Aryanti and Hananto (2013) found that fees that are not allowed as a deduction from taxable income are transferred to allowable costs as a deduction from taxable income. One of that fees is the cost of donating education activities.

The support of the Government in the Education sector, which is equal to 20% of the State Budget (APBN) encourages companies to struggle in the Education sector. In addition, the government also provides tax facilities to those who run educational businesses. Large budgets and various facilities provided by the government make education become grower. No wonder the institution of education foundation is increasing from year to year. Therefore, the second hypothesis tested is the following:

H2: Education Foundation strengthen the positive effect of CEO overconfidence has a positive effect to Tax Avoidance.

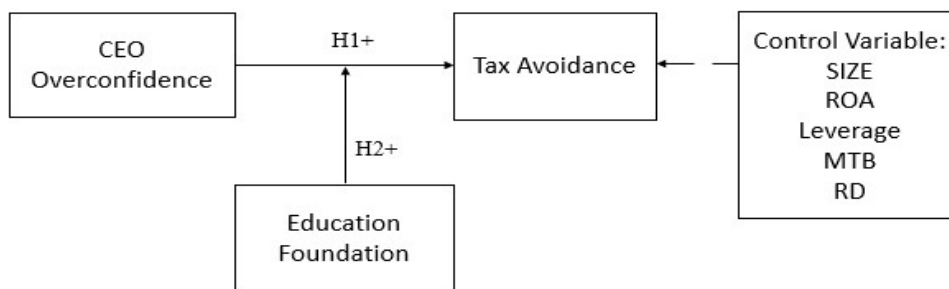


Figure. 1 Research Model

Research Method

This empirical study uses statistical regressions to test the impact of CEO overconfidence on tax avoidance. The regression testing also examines the effect of education foundation as a moderating variable. The sample that use in this research is company in Indonesia from 2013-2017. The total sample in this study consists of 305 firms for 5 years. The samples were obtained from Thomson Reuter’s database and annual report from company website. The sample selection technique used in this research is the purposive sampling method. The criteria used in the sampling are the following: (1) The financial industry is excluded because it is a regulated sector and has different financial reporting; (2) The mining industry and property, real estate and building construction industries were excluded because they had final income tax; and (3) Other financial data from a company to measure variables in this study are complete.

In this study, tax avoidance is a dependent variable that measure by cash effective tax rate (CETR). CETR uses accounting profit as the basis for its imposition, not taxable income. This variable is calculated based on the sum of tax payments in cash scale with pre-tax income for five years. CEO overconfidence is an independent variable that measured by excess investment, which is the residual value of the regression of total asset growth with sales growth, then measured by the dummy variable, 1 if the value of excess investment is greater than the industry median value for one year, and 0 otherwise. Education foundation is a moderation variable that measure by dummy variable, 1 if a company have an education foundation, and 0 otherwise.

Data Analysis Method

The study uses the Stata programme to analyse the data. With a sample of 305 companies in Indonesia and a 95% significance level, the study tested classical assumptions to avoid any Best, Linear, Unbiased Estimator (BLUE) in the study. Testing for hypothesis 1 uses Ordinary Least Square (OLS) regression with tax avoidance as the dependent variable, CEO overconfidence as independent variables, and size, return on assets, leverage, market to book ratio, and research and development expenses as control variables, while testing for hypothesis 2 uses regression analysis with tax avoidance as the dependent variable, CEO overconfidence as independent variables, education foundation as a moderating variable and size, return on assets, leverage, market to book ratio, and research and development expenses as control variables. The models used to test the hypotheses are defined as follows:

Model 1:

$$CETR_{it} = \beta_0 + \beta_1 CEO_{it} + \beta_2 SIZE_{it} + \beta_3 ROA_{it} + \beta_4 LEV_{it} + \beta_5 MTB_{it} + \beta_6 RD_{it} + \epsilon_{it} \dots\dots\dots(1)$$

Model 2

$$CETR_{it} = \beta_0 + \beta_1 CEO_{it} + \beta_2 EDUC_{it} + \beta_3 CEO_{it} * EDUC_{it} + \beta_4 SIZE_{it} + \beta_5 ROA_{it} + \beta_6 LEV_{it} + \beta_7 MTB_{it} + \beta_8 RD_{it} + \epsilon_{it} \dots\dots\dots(2)$$

Where:

CETR : Cash Effective Tax Rate

CEO : CEO Overconfidence

EDUC : Dummy Variable for company that has an education foundation

SIZE : Company Size

ROA : Return on Assets

LEV : Leverage

MTB : Market to book ratio

RD : Research and Development expenses

CEO_{it}*EDUC_{it} : Interaction between CEO Overconfidence and company that has education foundation

ε : Error term for company i in year t.

Results and Discussion

Descriptive Statistics

Table 1 reports the descriptive statistics for all variables in this study. The mean CETR and CEO score are 0.3977 and 0.5278 respectively. From the table, the company that do tax avoidance is a little and almost company have CEO overconfidence.

Table 1. Descriptive Statistics

Variabel	Mean	Median	SD	Min	Max
CETR	0.3977	0.2639	0.5820	0.0011	5.1170
CEO	0.5278	1	0.5000	0	1
EDUC	0.3114	0	0.4638	0	1
SIZE	29.690	29.750	1.4031	26.8090	33.3208
ROA	0.0499	0.0373	0.0682	-0.1372	0.3587
LEV	0.2768	0.2995	0.1629	0.0003	0.6168
MTB	1117.81	695.19	1270.24	32.4910	6157.11
RD	1.02	0	7.17	0	6.07

CETR: Cash Effective Tax Rate; CEO: CEO Overconfidence; EDUC: Dummy Variable for company that has an education foundation; SIZE: Company Size; ROA: Return on Assets; LEV: Leverage; MTB: Market to book ratio; RD: Research and Development expenses

Result of Model Analysis

This study conducted the estimation model to determine the best model in this study. The result shows that the random effect is the best model used in this study. Then, this study conducted a multicollinearity test and a normality test. From the result, there is no multicollinearity problem and the distribution of the data is normally distributed. Table 2 present the regression result of CEO overconfidence to tax avoidance. The positive coefficient value of 0.1052 indicates that CEO overconfidence has a positive effect on tax avoidance. The coefficient of CEO*EDUC is negative, which not supporting H2. Company that have an education foundation weaken the positive effect of CEO overconfidence on tax avoidance.

From the table 2, it shows that all variable control is supporting the hypothesis except MTB. SIZE and ROA have a positive effect to tax avoidance. With the result, it shows that, big company tends to have more complicated operations and have more resources to seek tax shelters and do tax avoidance. Then, company that have high profits will pay greater for tax payment so that the company will tend to do tax avoidance. it shows that firms that have a leverage tend to have a higher risk because investors assume that firms are difficult to pay the debt and increase firm risk. LEV and MTB have a negative effect to tax avoidance. Company with high leverage and high R&D expenses will have an incentive not to do tax avoidance because debt and R&D expenses are a deduction from taxes.

Table 2. Regression Analysis Result

Variable	Predict	Model 1		Model 2	
		Coef	Prob	Coef	Prob
CEO	+	0.1052	0.021**	0.1289	0.019**
CEO*EDUC	+			-0.0798	0.241
EDUC				0.0365	0.404
SIZE	+	0.0455	0.138	0.0476	0.142
ROA	+	0.7060	0.149	0.6742	0.161
LEV	-	-0.3306	0.152	-0.3609	0.142
MTB	+	-5.23	0.452	-6.62	0.441
RD	-	-7.19	0.192	-6.96	0.201
Observation		305			305
R-squared		0.0628			0.0594
Prob		0.000			0.000

*** significance at 1%, ** significance at 5%, * significance at 10%

Explanation:

CETR: Cash Effective Tax Rate; CEO: CEO Overconfidence; EDUC: Dummy Variable for company that has an education foundation; CEO*EDUC: Moderating of CEO Overconfidence and Education Foundation; SIZE: Company Size; ROA: Return on Assets; LEV: Leverage; MTB: Market to book ratio; RD: Research and Development expenses

Discussion

CEO overconfidence and tax avoidance

From the test results, this study is supporting hypothesis 1 and support the previous studies by Hsieh et al. (2018). With this result, it shows that CEO overconfidence can influence decision making policy for company, especially a company's tax reporting policy. According to upper-echelon theory, CEO overconfidence is more likely to be involved in tax avoidance activities due to their goal congruence (Olsen & Stekelberg, 2016). This is because the company that lead by CEO overconfidence will take the decision based on the command from CEO overconfidence, hence the employee tend to agree with the command.

In addition, there may be various techniques for companies with CEO overconfident to engage in tax-avoidance activities. For example, CEO overconfident engage in more international mergers and acquisitions, especially in nations or regions with lower tax rates (Ferris et al., 2013). Company can reduce tax liabilities and may serve as a tool for CEO overconfident to satisfy the investment ambitions and to avoid paying more taxes on the company profits.

Based on agency theory, there is harmony between management and investor. Minimizing tax payments is a useful activity for management and aims to maximize the interests of investor. Minimizing tax payments will produce cash flow that can increase investor wealth. Thus, management must provide attractive incentives in order to ensure the company's tax policy becomes effective (Dyregang et al., 2017). Besides that, management are interested in maximizing their own interests by controlling the payment of corporate taxes. CEO overconfidence have an important role to make decisions as a result they can influence tax avoidance policies because of the suitability of their goals. Tax avoidance is one of the opportunistic behaviors of management because of the separation between ownership and control (Desai & Dharmapala, 2006).

CEO overconfidence, tax avoidance, and education foundation

As shown in Table 2, the coefficient of CEO*EDUC is -0.0798, which is negative and not significant, which means it does not support hypothesis 2 that company that has education foundation can strengthen the positive effect of CEO overconfidence to tax avoidance. This study proves that education foundation weakens the positive effect of CEO overconfidence to tax avoidance. This finding is consistent with Lanis & Richardson (2013), who found company that engage CSR activity tends to have a low level of tax avoidance because the corporate culture based on a moral perspective. Based on corporate culture theory, company that engage in CSR activity because of the corporate culture tend to consider not only the interests of shareholders, but also the impact of their business activities on economies, societies, and environments. Company that engage in CSR activity because of their corporate culture and their intention of increasing social well-being, which is consistent with the goal of paying taxes. Therefore, CSR reduces company' tax avoidance tendency (Gras-Gil et al., 2016).

Conclusion

Companies use tax avoidance to maximize after-tax income. This study examines whether CEO overconfidence has a positive effect to tax avoidance, and whether education foundation as a moderating variable strengthens or weakens that effect. Based on the results of panel data regression analysis on 305 companies in Indonesia in 2013 to 2017, the results support that CEO overconfidence has a significant positive effect on tax avoidance, and education foundation weakens the positive effect of CEO overconfidence on tax avoidance. With the role of CEO overconfidence, companies will do tax avoidance because CEO overconfidence can use their strong policy preferences to make decisions.

This study has limitations, there is only one industry as a result the median measurement of the residual value from regression total asset growth and total sales growth cannot be obtained. Thus, CEO overconfidence measurement based on all samples, does not measure each industry to compare residual values from regression total asset growth and total sales growth. This study suggests the company must not do tax avoidance because it can reduce the reputation of the company. This study also suggests the regulators make regulations related to tax avoidance more effective. Further research can develop this model by adding unused variables in this study.

References

- Aryanti, Y. D., & Hananto, H. (2013). Penerapan Perencanaan pajak untuk meminimalkan pembayaran pajak penghasilan PT. "X" di Semarang. *Jurnal Ilmiah Mahasiswa Universitas Surabaya*, 2(1), 1–11.
- Buckley, P., Michie, J., & Coase, R. (1996). *Firms, organizations and contracts : a reader in industrial organization*. Oxford: Oxford University Press.
- Desai, M. A., & Dharmapala, D. (2006). Corporate tax avoidance and high-powered incentives. *Journal of Financial Economics*, 79(1), 145–179. <https://doi.org/10.1016/j.jfineco.2005.02.002>
- Dyreg, S. D., Hanlon, M., & Maydew, E. L. (2010). The effects of executives on corporate tax avoidance. *Accounting Review*, 85(4), 1163–1189. <https://doi.org/10.2308/accr.2010.85.4.1163>
- Dyreg, S. D., Hanlon, M., Maydew, E. L., & Thornock, J. R. (2017). Changes in corporate effective tax rates over the past 25 years. *Journal of Financial Economics*, 124(3), 441–463. <https://doi.org/10.1016/j.jfineco.2017.04.001>
- Ferris, S. P., Jayaraman, N., & Sabherwal, S. (2013). CEO overconfidence and international merger and acquisition activity. *Journal of Financial and Quantitative Analysis*, 48(1), 137–164. <https://doi.org/10.1017/S0022109013000069>
- Goerke, L. (2019). Corporate social responsibility and tax avoidance. *Journal of Public Economic Theory*, 21(2), 310–331. <https://doi.org/10.1111/jpet.12341>
- Graham, J. R., Hanlon, M., Shevlin, T., & Shroff, N. (2014). Incentives for Tax Planning and Avoidance: Evidence from the field. *The Accounting Review*, 89(3), 991–1023. <https://doi.org/10.2308/accr-50678>
- Gras-Gil, E., Manzano, M. P., & Fernández, J. H. (2016). Investigating the relationship between corporate social responsibility and earnings management: Evidence from Spain. *BRQ Business Research Quarterly*, 19(4), 289–299. <https://doi.org/10.1016/j.brq.2016.02.002>
- Hambrick, D. C. (2007). Upper Echelons Thoery: An update. *Academy of Management Review*, 32(2), 334–343. <https://doi.org/10.5465/AMR.2007.24345254>
- Hanlon, M., & Heitzman, S. (2010). A review of tax research. *Journal of Accounting and Economics*. <https://doi.org/10.1016/j.jacceco.2010.09.002>
- Hirshleifer, D., Low, A., & Teoh, S. H. (2012). Are Overconfident CEOs Better Innovators? *Journal of Finance*, 67(4), 1457–1498. <https://doi.org/10.1111/j.1540-6261.2012.01753.x>
- Hsieh, T. S., Wang, Z., & Demirkan, S. (2018). Overconfidence and tax avoidance: The role of CEO and CFO interaction. *Journal of Accounting and Public Policy*, 37(3), 241–253. <https://doi.org/10.1016/j.jaccpubpol.2018.04.004>
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Management behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3(1976), 305–360. [https://doi.org/10.1016/0304-405X\(76\)90026-X](https://doi.org/10.1016/0304-405X(76)90026-X)

- Kuncoro, A. R., & Pratama, A. D. Y. (2017). Optimalisasi pajak atas yayasan yang bergerak di bidang pendidikan. *Jurnal Pajak Indonesia*, 1(2), 31–37. <https://doi.org/10.1109/GLOCOM.2006.310>
- Lanis, R., & Richardson, G. (2013). Corporate social responsibility and tax aggressiveness: A test of legitimacy theory. *Accounting, Auditing and Accountability Journal*, 26(1), 75–100. <https://doi.org/10.1108/09513571311285621>
- Malmendier, U., & Tate, G. (2005). CEO overconfidence and corporate investment. *Journal of Finance*, 60(6), 2661–2700. <https://doi.org/10.1111/j.1540-6261.2005.00813.x>
- Mao, C. W. (2019). Effect of corporate social responsibility on corporate tax avoidance: evidence from a matching approach. *Quality and Quantity*, 53(1), 49–67. <https://doi.org/10.1007/s11135-018-0722-9>
- Olsen, K. J., & Stekelberg, J. (2016). CEO Narcissism and Corporate Tax Sheltering. *The Journal of the American Taxation Association*, 38(1), 1–22. <https://doi.org/10.2139/ssrn.2446128>