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Founder and Descendant vs. Professional CEO: Does CEO Overconfidence Affect Tax Avoidance in the Indonesia Case?

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Abstract: This study aims to test whether the founder or descendants of CEOs have differences from professional CEOs in influencing the relationship between CEO overconfidence and tax avoidance. Overconfident CEOs have strong incentives to avoid taxes. However, the role of the founder or descendant CEOs is expected to mitigate the relationship between the CEO's overconfidence and tax avoidance. This study used a sample of non-financial companies listed on the Indonesia Stock Exchange in 2012–2019 and tested random effect panel data. The results of this study show that CEO-led companies that are overconfident are more driven to tax avoidance. Meanwhile, the relationship between CEO overconfidence and tax avoidance is not influenced by the presence of a descendant, founder, or professional CEO. Indonesia as one of the countries that adheres to a two tier governance system, the founder or descendant CEO is not the only significant actor in the company but based on the upper echelon theory that role of the entire company management team that influences the company's policy strategy. This study provides implications for developing the literature regarding the relationship between CEO overconfidence and tax avoidance. However, the relationship between CEO overconfidence and tax avoidance is not influenced by the presence of the founder, descendant, or professional CEO. Likewise, this research is useful for investors, creditors, and regulators in paying attention to the characteristics of the CEO in making decisions.

Keywords: CEO overconfidence; founder; descendant; tax avoidance

1. Introduction

In recent periods, some psychology, finance, and economic literature have paid attention to the characteristics of managerial overconfidence because it can cause decision bias that is detrimental to the company (Malmendier and Tate 2015). Overconfidence in psychological studies is defined as "miscalibration", "better than average", "illusion of control", and "unrealistic optimism" (Skała 2008). The financial literature explains that overconfidence is a personal characteristic of individuals who tend to overestimate their abilities and knowledge. Nevertheless, they are motivated to achieve or exceed expectations and are highly committed to performance achievements such as bonuses and professional reputations (Hsieh et al. 2018).

Previous studies have shown the impact of company leaders with overconfidence on the company's policy strategy. Likewise, Zimon et al. (2022) stated that the CEO has the power to influence the sustainability and reputation of the company. Malmendier and Tate (2005, 2008) state that overconfident CEOs like to overinvest to demonstrate their abilities and competencies. Deshmukh et al. (2013) show that overconfident CEOs are reluctant to pay dividends. In addition, overconfident CEOs tend to seek external funding in the form of debt to fund some investments, innovations, and business expansions (Malmendier et al. 2011). Meanwhile, Schrand and Zechman (2012) show that overconfident CEOs tend to commit accounting fraud. Overconfident CEOs also tend to manage accrual earnings

(Alqatamin et al. 2017) and real earnings management (Kouaib and Jarboui 2016a, 2016b, 2017).

In addition, Dyreng et al. (2010) show that CEOs with high optimism tend to tax avoidance. Likewise, some previous studies have shown that CEOs with overconfidence characteristics are more encouraged to tax avoidance (Aliani et al. 2016; Kubick and Lockhart 2017; Hsieh et al. 2018; Chyz et al. 2019; Sumunar et al. 2019; Dayuningtyas and Rahmiati 2020; Sutrisno and Pirzada 2020; Ilaboya and Aronmwan 2021). Overconfident CEOs use tax avoidance to prove their ability to save taxes, manage companies, improve their professional reputation, achieve certain earnings targets, and collect financial funding through cash flow for investment activities and business expansion. Likewise, Lanis et al. (2018) show that CEOs with tax avoidance strategies will increase their reputation with the increase of extra board seats. However, Salehi and Salami (2020) stated that there are two negative possibilities of tax avoidance, namely the possibility of paying penalty fines and damaging the company's reputation and credibility. Nevertheless, Carrer and Slavov (2021) show there is no influence of CEO overconfidence on tax avoidance. The findings raise allegations that other factors affect the relationship between CEO overconfidence and tax avoidance, such as corporate governance mechanisms.

Indonesia is a country with a low tax ratio compared to countries in the Asia Pacific, according to the OECD (Organization for Economic Co-operation and Development). The low tax ratio is an indication of high tax avoidance in Indonesia. In addition, Indonesia is a country in East Asia dominated by family companies with a concentrated ownership pattern (Claessens et al. 2000, 2006). More than 80% of non-financial companies in Indonesia are categorized as family companies (Hidayati and Diyanty 2018). The structure and shape of the company will also encourage the expropriation of the company's managerial party (Lai and Tai 2018). Therefore, the structure and form of a family company are very vulnerable to type two agency conflicts, namely the expropriation of the controlling shareholders to non-controlling shareholders.

On the contrary, several other studies have shown the effect of the alignment of family companies, especially family companies led by a founder, because, in general, the founder will try to maximize value for the company (Anderson and Reeb 2003; Chen et al. 2010; Cheng 2014). Likewise, Ali et al. (2007) state that the founder CEO can be a good corporate governance mechanism that is expected to reduce the expropriation of company management. In addition, the founder CEO is considered to have a high sense of ownership of the company because the company they founded is a life achievement, long-term oriented, and strives to maintain the sustainability and reputation of the company (Cheng 2014; Fahlenbrach 2009).

The difference in influence between founder, descendant, and professional CEOs is an issue that needs to be studied further concerning CEO overconfidence and tax avoidance, especially in the sample of companies in Indonesia that are majority owned by family companies. Waldkirch (2020) states that in recent decades there has been an increase in family firms hiring professional CEOs. This phenomenon is interesting to study regarding the differences in the impact of the founder, descendant, and professional CEO's leadership on the company. In addition, Indonesia is a developing country with a weak legal system and investor protection, which can cause type two agency conflicts. Therefore, it is necessary to test the role of the founder, descendant, and professional CEO on the relationship between CEO overconfidence and tax avoidance which is still rarely studied.

The role of the founder or descendant CEO in the company will be an interesting topic to be studied further because the existence of the founder and descendant CEO is predicted to have a different influence on several strategic choices or decisions in the company. Nevertheless, several studies show the negative side of descendant CEOs. Chen et al. (2010) state that descendant CEOs tend to ignore damage to the company's reputation in the future because descendant CEOs were not directly involved in the initial pioneering of the company's establishment. Meanwhile, Cheng (2014) shows that descendant CEOs have minimal management capabilities because the selection of the next generation as

CEOs is based on the lineage of the descendant of the company's founder. Even some other studies (Bertrand et al. 2008; Pérez-González 2006; Villalonga and Amit 2010) show that companies under the control of the descendant CEO lower the value of the company.

In contrast, Putri and Viverita (2019) show that descendant CEOs are more risk-averse than founder CEO. The finding is that in a family company in Indonesia, handing over the family business to the next generation takes a long time so that descendants can learn well about the company's business management. In addition, Putri and Viverita (2019) explained that the founder's influence in delegating company management to the next generation would affect how the descendants develop the company in the future.

Compared to founders and descendants, professional CEOs are more focused on short-term profits because they have a limited period in the company. However, some studies have shown that professional CEOs can create value for companies compared to descendant CEOs (Villalonga and Amit 2010). Likewise, Chen et al. (2010) suggest that professional CEOs have lower tax avoidance rates than descendant CEOs in corporate studies in the US.

This research contributes to filling the gaps in previous research by testing the influence of founder and descendant CEO on the relationship between CEO overconfidence and tax avoidance, which is still very rarely studied. Companies led by founder and descendant CEOs are predicted to weaken the positive relationship between CEO overconfidence and tax avoidance. Founder and descendant CEO will be more long-term oriented than professional to avoid taking actions that could harm the company. Shu et al. (2012) state the difficulty of finding an appropriate measurement of overconfidence characteristics testing. This study combines CEO overconfidence measurements quantitatively and qualitatively in the form of overinvestment, debt-to-equity ratio, and dividend yield (Kouaib and Jarboui 2016a, 2016b); tone analysis and net emotion (Ataullah et al. 2018). Combining CEO overconfidence proxies is carried out using a composite score index to overcome measurement limitations using a single proxy.

The remainder of this paper is organized as follows: Section 2 explains the literature review and hypothesis development. Section 3 provides the data information, sampling method, and research methodology. Section 4 provides the research result and sensitivity analysis. Last, Section 5 provides the conclusion, implication, limitations, and suggestions for future research.

2. Review and Hypotheses Development

2.1. CEO Overconfidence and Tax Avoidance

In upper echelon theory, Hambrick and Mason (1984) state that the psychological characteristics of top management in the form of rationale, values held, and other personal backgrounds will influence decisions and actions taken for the company. Thus, the company will reflect on the values and rationale of the company's leaders. In addition, the CEO, the foremost leader in the company's operations, can influence decision choices and policy strategies. Amernic and Craig (2010) state that the company will reflect the personal characteristics of the CEO. One psychological characteristic that has recently received much attention from practitioners and academics is overconfidence.

In psychology and management literature, overconfidence is one part of the narcissistic personality that believes they are superior to others (Chatterjee and Hambrick 2007). Likewise, Lee (2016) states that individuals with overconfidence characteristics consider themselves better than the average other individuals. Meanwhile, Kouaib and Jarboui (2017) stated that leaders with overconfidence would overestimate their abilities and knowledge, which can influence their decisions and actions in the company. Chatterjee and Hambrick (2007) explain that a narcissistic personality can be both constructive and destructive. Constructive nature can bring success as a leader, but an excessively narcissistic personality will lead to destructive traits that can be devastating. Destructive nature uses its power to build a self-image, resist negative feedback, and build grandiose projects.

Dyreng et al. (2010) show that the individual characteristics of executives within a company will affect tax avoidance actions carried out by the company they lead. Empirical evidence has shown that CEO overconfidence affects the high avoidance of corporate taxes. Aliani et al. (2016) conducted a study on a sample of companies in Tunisia, showing findings that overconfident CEOs are driven to minimize corporate taxes. Kubick and Lockhart (2017), Hsieh et al. (2018), and Chyz et al. (2019), using a sample of companies in the US, show that CEO overconfidence has a positive effect on tax avoidance. Research with samples of public companies in Indonesia conducted by Sumunar et al. (2019) and Sutrisno and Pirzada (2020) show that CEO-led companies have high tax avoidance.

Meanwhile, Ilaboya and Aronmwan (2021), with a sample of non-financial companies in Nigeria, also show that CEO overconfidence positively affects tax avoidance. However, Carrer and Slavov (2021), in a sample of non-financial companies in Brazil, show that CEO overconfidence does not affect tax avoidance caused by other factors in the company that also affect such as corporate governance mechanisms. A good corporate governance mechanism in the company creates harmony between management goals and shareholders so that tax avoidance actions carried out by the company's management are tax savings that do not harm the company in the long term.

Tax avoidance is a tax austerity measure still viewed as ethical and legal (Payne and Raiborn 2015). Tax avoidance can also mean a form of tax planning so that the calculation of corporate tax becomes small (Wilde and Wilson 2018). Tax avoidance actions are generally carried out, such as utilizing transactions that can be tax deductibles. Tax avoidance can be viewed as both positive and negative actions. On the one hand, tax avoidance is a form of tax efficiency, but on the other hand, it can increase fines and penalties that can make the company suffer some losses. Hanlon and Heitzman (2010) state that tax avoidance brings several benefits, such as increased cash flow and investor welfare. Still, another consequence is the advanced payment of penalty fines that lead to decreased cash flow and investor welfare.

CEOs with overconfidence characteristics are encouraged to do tax avoidance because they want to: (1) prove their ability to manage corporate taxes efficiently; and (2) tax efficiency can result in several savings in funds that can be used to invest and innovate that can demonstrate the greatness of CEO overconfidence. Lanis et al. (2018) show that the CEO of a company that commits tax avoidance will increase the personal reputation evident in the addition of the position given to them. In addition, CEO overconfidence can take advantage of loopholes in tax rules that minimize corporate taxes, such as using debt interest and transferring profits to affiliated companies to discourage tax payments. Nevertheless, tax avoidance can have several negative consequences for the company, such as damage to the company's reputation and increased penalties in the future (Guenther et al. 2017; Hutchens and Rego 2015; Salehi and Salami 2020). Based on the preceding, the research hypothesis is stated as follows:

Ha1. *CEO overconfidence has a positive effect on tax avoidance.*

2.2. Founder and Descendant on CEO Overconfidence and Tax Avoidance Relationships

Agency conflicts often arise in family-controlled companies are type two agency conflicts, namely the relationship between controlling and non-controlling shareholders. The controlling shareholder (family firm) has high controlling rights because the founder or family member occupies managerial positions such as being CEO, on board of directors or commissioners, or has a high percentage of share ownership so that they control access to company information (Ali et al. 2007; Anderson and Reeb 2003; Cheng 2014). This condition causes non-controlling shareholders to face the risk of expropriation by the controlling shareholder. In addition, Habib et al. (2017) and Utama and Utama (2014) show the existence of "tunneling" activities and transactions between related parties that are used to maximize the personal benefits of controlling shareholders to the detriment of non-controlling shareholders.

Chen et al. (2010) show that 64% of family companies in the S&P 1500 are led by both the CEO and his family members. Thus, the founder and descendant hold essential control in the family company. A family-controlled company can have two different effects depending on the ownership structure (Claessens and Fan 2002). The entrenchment effect occurs when the family or controlling shareholder uses its power to control the company to maximize its profits resulting in losses to non-controlling shareholders. On the contrary, the alignment effect occurs when a company controlled by the family can maximize the company's welfare because the family is the most significant part of the company itself, so it will not take actions that can lose the company.

Thus, the existence of a founder and descendant as the CEO of the company will be able to bring its influence to the company it leads. Cheng (2014) and Fahlenbrach (2009) stated that a founder CEO could have a good effect on the company because it is predicted to increase the value of the company they founded in the first place. Chen et al. (2010) explained that the founder CEO prioritizes the company's interests, has a high responsibility for the company, and concentrates on maintaining the company's reputation and sustainability in the long term by not doing things that can harm the company. Likewise, Fahlenbrach (2009) stated that the founder CEO has a high sense of ownership of the company, better managerial abilities, is innovative, is more courageous to take several risks, has an entrepreneurial spirit, and is influential in decision-making.

Anderson and Reeb (2003) showed that family companies led by the founder CEO or descendants have a high level of profitability. However, only companies led by a founder and professional CEO have good market performance, while companies with descendants CEO have not been shown to affect market performance. The high profitability and market performance of companies led by the founder CEO are because the founder has a longer period in the company, so they will think long-term and make some investments and innovations that benefit the company in the future. In addition, the founder or family members' CEO is faced with maintaining the company's reputation that can be passed on to the next generation.

However, several studies show the negative side of companies led by descendant CEOs or members of the founder's family because they lack a high sense of ownership. The descendant CEO was not directly involved at the beginning of the company's pioneering. The descendant CEO continued the founder's legacy even though they lacked managerial skills or experience. They were chosen because they had a close family relationship with the company founder (Cheng 2014). Previous studies showed that a descendant CEO did not affect market performance (Anderson and Reeb 2003), had low disclosure (Ali et al. 2007), and had a lower Tobin's q value than a company led by a founder CEO (Villalonga and Amit 2006). Even Pérez-González (2006) points out that descendant CEOs have a low operational profitability and market value ratio compared to companies led by professional CEOs. While Chen et al. (2010) show that descendant CEOs have a higher level of tax avoidance than CEOs and even professional CEOs. It is different with a professional CEO who is an outside CEO who is hired to run the company's operations. Professional CEOs are considered to have less of a high sense of ownership of the company than founder and descendant CEO because they have a limited length of service in the company.

Based on some of the results of previous research, the founder CEO is considered not to take actions that can harm the company in the long run. The high sense of ownership of the company encourages the founder CEO to maximize value for the company they founded from the beginning and try to maintain a good reputation for the company. Founder CEO with high overconfidence is predicted to maximize welfare and avoid actions that can harm the company. Referring to the previous research and the arguments above, then the hypothesis of this study is:

Ha2. *Founder CEOs weaken the positive relationship between CEO overconfidence and tax avoidance more than professional CEO.*

Unlike the founder CEO, the descendant CEO is predicted to have less influence than the founder CEO in weakening the positive relationship between overconfidence and tax avoidance. Chen et al. (2010) state that the descendant CEO is less concerned about the reputation and sustainability of the company in the future than the founder CEO. In addition, the descendant CEO is considered not to have as much managerial experience as the founder (Cheng 2014). Compared to professional CEOs, descendant CEOs are considered to be able to reduce value for the company because of their carelessness in acting to the detriment of the company (Villalonga and Amit 2010). In addition, Barontini and Caprio (2006) show that the value and performance of a family company led by a descendant CEO are statistically no different from that of a non-family company.

In contrast to some of the findings of previous research, Putri and Viverita (2019) stated that descendant CEOs are more cautious in taking risky actions than the founder CEOs in family companies in Indonesia. The descendant CEO has a better education level than the founder, so they are more careful in managing the company. In addition, in the study, it was explained that 70% of family companies in Indonesia have a succession plan for the next generation, so there is a transfer of knowledge from founder to descendant, which makes descendants more careful in maintaining the company's reputation in the future.

McConaughy et al. (1998) found that family companies controlled by descendant CEOs had higher efficiency than the founder. Meanwhile, McConaughy and Phillips (1999) point out that the descendant CEO improves the company's profitability. In addition, the findings show that companies controlled by the family will reduce agency conflicts, thereby increasing efficiency for the company. However, based on the results of previous studies, there are still different views on the role of the descendant CEO in the company. On the one hand, the existence of a descendant CEO as a generational heir in a family company will be able to reduce agency conflicts. However, on the other hand, the descendant CEO is also considered to have less experience and a high sense of ownership of the company than the founder CEO. Thus, the research hypothesis can be expressed as follows:

Ha3. *Descendant CEO weakens the positive relationship between CEO overconfidence and tax avoidance more than professional CEO.*

3. Methodology

3.1. Data and Samples

The data sources in this study used secondary data: (1) annual reports of non-financial companies listed on the Indonesia Stock Exchange, accessed through the Indonesia Stock Exchange website; (2) Thompson Reuter's data stream. The sample selection method uses purposive sampling with the following criteria: (1) non-financial companies listed on the Indonesia Stock Exchange for the 2012–2019 period. Financial institutions such as banks, funding institutions, and secretarial and insurance companies are issued in the research sample because they have different regulations from companies in the non-financial industry so that they can influence research results. (2) Non-financial companies are not included in the real estate, construction, and mining property industries because they are industrial sectors subject to final taxation.

3.2. Operationalization of Research Variables

3.2.1. CEO Overconfidence

CEO overconfidence measurement using a combination of multiple proxies based on several previous studies (Schrand and Zechman 2012; Ji and Lee 2015; Kouaib and Jarboui 2016a, 2016b; Ataullah et al. 2018) are as follows:

(1) Overinvestment is a residual regression of capital expenditure/total assets$_{-1}$ with industry-year sales growth and profitability. Residual regressions marked positive are given a value of 1 which means overinvestment, while residual regressions marked with a negative sign are given a value of 0, indicating underinvestment. Companies indicated by

overinvestment show indications of overconfidence characteristics (Ben-David et al. 2013; Malmendier and Tate 2005, 2008).

(2) Debt to total assets. The value of 1 for debt to total assets is higher than the industry median of a given year, while the value of 0 is if vice versa. Debt to total assets exceeding the industry median per year shows CEO overconfidence (Malmendier et al. 2011).

(3) Dividend yields are the ratio of dividends per share to the share price. If it is worth 0, then the indication that the CEO of overconfidence leads the company is rated 1; otherwise, it is the other way around (Ben-David et al. 2013).

(4) Tone analysis is a narrative analysis of the CEO's statements contained in the CEO's report in the annual report. Optimistic tones are calculated by the ratio of (positive tone-negative tone) divided by (positive tone + negative tone) based on a word list from Henry (2008). Positive and negative tones are calculated from the frequencies of positive or negative words divided by the total number of words in the CEO's report. Suppose the tone analysis of a company is greater than the industry median per year and smaller than the median profitability of the industry per year. In that case, it will be given a value of 1 (indicating the company is led by the CEO's overconfidence) and a value of 0 if vice versa.

(5) Net emotion is calculated by reducing positive and negative emotions (the frequencies of positive and negative words). Value 1 if the net value of a company's emotions is higher than the industry median per year and less than the median profitability of the industry per year, the value is 0 if vice versa.

The calculation of positive and negative words in the CEO's report uses NVIVO software to obtain accurate data. The combination of CEO overconfidence measurements uses the composite score index, which sums the total values of the five proxies of the CEO overconfidence measurement and divides them by the overall total value. The combination of measures using composite score analysis refers to Herusetya (2012), Cassell et al. (2012), and Mitra et al. (2019). The combination of CEO overconfidence proxies is done to capture the complete picture of the characteristics of overconfidence rather than using only one proxy.

3.2.2. Founder CEO

This study classifies CEOs into three categories:

1. The founder CEO is a founder or co-founder who serves as the company's CEO (Schrand and Zechman 2012). The founder is the individual responsible for the initial establishment of the beginning of the formation of a company.
2. A descendant CEO is a CEO who comes from a member of the company's founding family who is related by blood or marriage (Anderson and Reeb 2003; Villalonga and Amit 2006, 2010).
3. A professional CEO comes from a party other than the founder, co-founder, or descendant.

The identification of the search for the founder or descendant CEO is carried out through the company's annual report or from the company's related website.

3.2.3. Tax Avoidance

Tax avoidance legally reduces the tax burden (Dyreng et al. 2008, 2010; Frank et al. 2009; Hanlon and Heitzman 2010; Hsieh et al. 2018). Tax avoidance is measured using the value of the book-tax difference (BTD) which is a powerful proxy in showing tax avoidance because BTD can reflect temporary and permanent differences (Wilson 2009). In addition, BTD can catch delays in tax payments over a long period (Blaylock et al. 2012). Calculation of BTD (Tang et al. 2016) formulated as follows:

Book-Tax Difference (BTD) = (Pretax IncomexTax Rate − Income Tax)/Total assets

The control variables used in this study are market to book, return on assets, loss, company size, operating cash flow, leverage, intangible assets, family company, dummy year, and industry.

3.2.4. Control Variables

This study includes several company characteristics to control for the possibility of these factors influencing tax avoidance. The calculation of the control variable formula is described as follows:

- Market to book (MTB) is the ratio of the market value per share of common stock to the book value per share of equity at the end of the period. The higher the MTB, the lower the tax avoidance (Hsieh et al. 2018). The high ratio of market value to book value shows that the company has a good reputation from an investor's view, so the company tends not to avoid taxes.
- Return on assets (ROA) shows the company's profitability is calculated by dividing earnings before interest and taxes by total assets (Hsieh et al. 2018). Higher profitability indicates companies' tendency to avoid income taxes (Gaaya et al. 2017; Chen et al. 2010; Rego 2003).
- LOSS shows companies that have a loss before tax. Value 1 if the company has a loss before tax, value 0 otherwise. Companies that report profits tend to avoid taxes because they will get more tax benefits from tax savings (Frank et al. 2009; Badertscher et al. 2013).
- Sales growth (GROWTH) is calculated by the change in sales of the current period with the previous period's sales divided by the previous period's sales. Companies with high sales growth are predicted to avoid taxes (Lanis et al. 2018; Dyreng et al. 2010).
- Company size (SIZE) is calculated by the natural logarithm of total assets. Firm size has a negative relationship with tax avoidance. The larger the company size, the lower corporate tax avoidance (Ayers et al. 2017; Hoopes et al. 2012) because large companies will generally be subject to supervision by tax collectors.
- Operating cash flow (CFO) is calculated by dividing the value of cash flows from operational activities by total assets. Companies with high operating cash flows are predicted to avoid tax due to tax savings reflected in the large value of operating cash flows (Frank et al. 2009; Richardson and Taylor 2015; Hsieh et al. 2018).
- Leverage (LEV) is calculated using the total debt ratio to total assets. Leverage positively relates to tax avoidance because companies can take advantage of debt interest expenses to reduce the company tax burden (Hsieh et al. 2018).
- Intangible assets (INTG) are calculated using the ratio of intangible assets to total assets (Dyreng et al. 2010). Intangible assets affect the difference between taxable income and per-book income (Badertscher et al. 2013; Chen et al. 2010). Intangible assets describe complexity and economies of scale, so the greater the intangible assets, the higher the tax avoidance (Hsieh et al. 2018).
- A family company (FAM) is a company owned by the founder or family of the founder who sits as a director or commissioner of the company (Villalonga and Amit 2006) or shares ownership by individuals or institutions other than public companies, financial institutions, government above 50% which means have control or control over the company (Ang et al. 2000; Arifin 2003; Barontini and Caprio 2006). Family companies tend not to avoid tax because they think the tax cost is higher than the tax benefit (Chen et al. 2010).

This study also adds other control variables, year and industry dummy (Rego 2003; Guenther et al. 2017; Cao et al. 2021; Ali and Tauni 2021) to control variations in the years of observation and industrial differences which may affect the research results. Industry classification is based on a grouping by the Indonesia Stock Exchange: (1) agriculture; (2) basic industry and chemicals; (3) miscellaneous industry; (4) consumer goods industry; (5) infrastructure, utilities and transportation; (6) trade, service and investment.

3.2.5. Research Model

The research model can be described as follows:

$$
\begin{aligned}
\text{TAXAVOID}_{it} = {} & \beta_0 + \beta_1 \text{OVERCONFIDENCE}_{it} + \beta_2 \text{FOUNDER}_{it} + \beta_3 \text{DESCENDANT}_{it} + \\
& \beta_4 \text{OVERCONFIDENCE}_{it}\text{xFOUNDER}_{it} + \beta_5 \text{OVERCONFIDENCE}_{it}\text{xDESCENDANT}_{it} + \beta_6 \text{MTB}_{it} + \beta_7 \text{ROA}_{it} + \\
& \beta_8 \text{LOSS}_{it} + \beta_9 \text{SIZE}_{it} + \beta_{10} \text{CFO}_{it} + \beta_{11} \text{INTG}_{it} + \beta_{12} \text{FAMILY}_{it} + \beta_{13} \text{DummyInd} + \beta_{14} \text{DummyYear} + \varepsilon
\end{aligned}
\tag{1}
$$

4. Results

4.1. Descriptive Statistics

Table 1 shows a descriptive statistical picture of the test sample of 344 companies as follows:

Table 1. Descriptive Statistics[1].

Variable	Mean	Std. Dev.	Min	Max
BTD	−0.003	0.019	−0.150	0.087
TAXABLECASHFLOWS	0.279	0.192	0.000	0.988
EFFECTIVE TAX RATE	0.257	0.143	0.000	0.960
LONGRUNCASHETR	0.275	0.180	0.000	1.000
CEOOVER	0.325	0.268	0.000	1.000
OVERINVESTMENT	−0.155	0.852	−6.675	0.879
DTA	0.294	0.226	0.000	1.111
DIVIDENDYIELD (%)	1.472	2.291	0.000	16.390
TONEANALYSIS	0.625	0.312	−1.000	1.000
NETEMOTION	0.029	0.014	−0.027	0.083
CEOOVERDUMMY	0.270	0.444	0.000	1.000
FOUNDER	0.266	0.442	0.000	1.000
DESCENDANT	0.162	0.368	0.000	1.000
MTB	1.474	1.433	0.136	10.157
ROA	0.035	0.104	−0.604	0.425
LOSS	0.217	0.413	0.000	1.000
SIZE	21.135	1.878	11.043	26.554
FAMILY	0.602	0.490	0.000	1.000
CFO	0.055	0.114	−0.367	0.565
INTG	0.022	0.083	0.000	0.888

BTD is book-tax difference; Taxablecashflows is the ratio of the amount of tax paid to profit before tax; The effective tax rate (ETR) is calculated from the division between tax expense and earnings before tax; Longruncashetr represents an average of five years of tax payments. CEOOVER is CEO overconfidence as measured by combining five proxies: namely overinvestment, tone analysis, net emotion, debt to total assets, and dividend yield; OVERINVESTMENT is a residual regression between capital expenditure and changes in sales and profitability; DTA is the ratio of debt to total assets; DIVIDENDYIELD is a dividend per share divided by the market price of the stock; TONEANALYSIS is the ratio of positive words-negative words divided by positive words + negative words; NETEMOTION is calculated by net emotion, i.e., positive words–negative words. FOUNDER is a dummy variable, a value of one if the founder CEO leads the company value of 0 if vice versa; DESCENDANT is a dummy variable, with a value of 1 if the next generation CEO leads the company, a value of 0 if vice versa; MTB is market to book; ROA is the ratio of net income to total assets; LOSS is a dummy variable, value one if the company has a loss before tax, value 0 if vice versa; SIZE is the natural logarithm of total assets; FAMILY is a dummy variable, a value of 1 if the family company, a value of 0 if vice versa. CFO is the ratio of operating cash flows to total assets; INTG is the ratio of intangible assets and total assets.

The BTD (book-tax difference) value had an average of −0.003, meaning that a sample of public companies in Indonesia has a smaller accounting profit than fiscal profit with a standard deviation of 0.019. These results show that, on average, a sample of public companies in Indonesia did not carry out tax avoidance. BTD data distribution had a minimum value of −0.150 and a maximum value of 0.087. Likewise, other measurements of tax avoidance, such as taxable cash flows, ETR, and long-run cash ETR, suggested on average that the sample of non-financial companies in Indonesia were not indicated to have tax avoidance because the number of tax payments and tax expenses reported showed a value above the corporate tax rate in Indonesia.

The mean of CEO overconfidence was 0.325, with a standard deviation of 0.268. The findings showed that, on average, public companies in Indonesia that were sampled were not led by CEO overconfidence. Proxy CEO overconfidence measured using overinvestment had an average value of −0.155 (negative value), which indicated that, on average, the companies sampled in the study were not led by CEO overconfidence, with a standard deviation of 0.852, a maximum value of 0.879, and a minimum value of −6.675. CEO overconfidence, measured using debt to total assets, had a minimum value of 0 and a maximum value of 1.111; the average value of debt to total assets was 0.294 and standard deviation of 0.226. The results showed that, on average, the companies sampled by the study were not led by CEO overconfidence. The CEO overconfidence proxy using dividend yield had a mean value of 1.472, which means that on average, the companies that were the test sample were not led by the CEO overconfidence, with a standard deviation value of 2.291, the minimum value is 0, and the maximum value is 16.39. Proxy CEO overconfidence measured using tone analysis had a mean value of 0.625, with a standard deviation value of 0.312, a minimum value of −1, and a maximum value of 1. These results show that the average corporate tone in the CEO's report illustrated a relatively high level of optimism. Meanwhile, the CEO overconfidence proxy measured using net emotion had a mean value of 0.029, which means that on average, the companies sampled hada CEO report with positive emotions because the net emotion value was positive, with a standard deviation value of 0.0145, the minimum value is −0.027, and the maximum value was 0.083. Non-financial companies in Indonesia that were sampled and led by the founder CEO are 26.59% with a standard deviation value of 44.19%, and companies led by descendants CEO were 16.17% with a standard deviation value of 36.83%.

Table 2 shows the correlation between variables identifies that CEO overconfidence was significantly positively correlated with overinvestment, debt to total assets, tone analysis, and net emotion and significantly negatively correlated with dividend yield. Overconfident CEOs liked to overinvest, owed a lot, had high optimism, and were reluctant to distribute dividends. CEO overconfidence had an insignificant positive direction toward tax avoidance. Consistent with the initial prediction that CEOs who are overconfident tend to tax avoidance (Aliani et al. 2016; Chyz et al. 2019; Dayuningtyas and Rahmiati 2020; Hsieh et al. 2018; Kubick and Lockhart 2017; Sumunar et al. 2019; Sutrisno and Pirzada 2020). Both founder and descendant variables had a significant positive correlation to tax avoidance. This positive relationship direction shows that the founder and descendant tend to commit tax avoidance actions. However, the direction of the relationship does not match the initial predictions that indicate that the founder will tend to be cautious in carrying out activities that can harm the company, one of which is tax avoidance (Chen et al. 2010). Meanwhile, descendants tend to tax avoidance more than founders (Chen et al. 2010).

The founder variable was negatively correlated to CEO overconfidence as measured by the combination of five proxies: overinvestment, debt to total assets, dividend yield, tone analysis and net emotion. Lee et al. (2017) and Tang et al. (2016) show that founders generally have overconfidence. Nevertheless, founders are more cautious in taking actions or decisions to maintain the company's reputation in the future (Chen et al. 2010). In contrast, the descendant has an insignificant positive correlation to CEO overconfidence. Descendants are generally a younger and more educated generation, so they have high self-confidence. Aliani et al. (2016) show a positive correlation between young age and higher levels of education towards CEO overconfidence.

Table 2. Correlation.

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. ceoover	1															
2. overinvest	0.126 ***	1														
3. dta	0.286 ***	0.050 **	1													
4. dividendyield	−0.330 ***	−0.015	−0.117 ***	1												
5. toneanalysis	0.432 ***	−0.072 ***	−0.103 ***	−0.051 *	1											
6. netemotion	0.488 ***	−0.035	−0.091 ***	−0.044 *	0.750 ***	1										
7. btd	0.015	−0.056 **	−0.207 ***	0.033	0.161 ***	0.175 ***	1									
8. founder	−0.049 **	−0.009	0.046 *	−0.012	0.011	0.037	0.045 *	1								
9. descendant	0.002	0.016	−0.035	0.067 ***	−0.008	0.028	0.058 **	−0.264 ***	1							
10. mtb	−0.041	−0.011	−0.018	0.018	0.016	0.015	0.015	−0.002	0.018	1						
11. roa	−0.045 **	−0.101 ***	−0.353 ***	0.163 ***	0.202 ***	0.262 ***	0.670 ***	−0.007	0.035	0.019	1					
12. loss	0.044 **	0.102 ***	0.232 ***	−0.167 ***	−0.161 ***	−0.200 ***	−0.443 ***	−0.050 **	−0.081 ***	−0.003	−0.602 ***	1				
13. size	0.212 ***	0.044 *	0.158 ***	0.190 ***	0.103 ***	0.081 ***	0.098 ***	−0.111 ***	0.0000	−0.009	0.110 ***	−0.098 ***	1			
14. cfo	−0.037 *	−0.024	−0.217 ***	0.187 ***	0.100 ***	0.125 ***	0.180 ***	−0.068 ***	−0.002	−0.008	0.467 ***	−0.249 ***	0.135 ***	1		
15. intg	0.007	−0.011	−0.007	−0.063 **	0.095 ***	0.04	−0.012	−0.026	−0.035	0.001	−0.026	0.012	0.110 ***	−0.042 *	1	
16. family	−0.006	0.008	−0.02	0.058 **	−0.068 ***	0.003	0.095 ***	0.463 ***	0.301 ***	0.029	0.009	−0.065 ***	−0.079 ***	−0.051 **	−0.049 **	1

*** Correlation is significant at the 0.01 level two-tailed). ** Correlation is significant at the 0.05 level (two-tailed). * Correlation is significant at the 0.1 level (2-tailed).

4.2. Hypothesis Testing

This study used random effect panel data testing because fixed effect testing causes omitted variables. In addition, to avoid the influence of industry and period, this study included an industrial and year dummy in the hypothesis testing model.

Table 3 shows that CEO overconfidence, as measured using a combination of five proxies, namely overinvestment, debt to total assets, dividend yield, tone analysis, and net emotion, has a positive effect on tax avoidance with a *p*-value of ≤0.01 in all three test models. The findings prove that companies led by overconfident CEOs are more driven by tax avoidance. The results of this study are consistent with several previous studies (Aliani et al. 2016; Kubick and Lockhart 2017; Hsieh et al. 2018; Sumunar et al. 2019; Chyz et al. 2019; Dayuningtyas and Rahmiati 2020; Sutrisno and Pirzada 2020; Ilaboya and Aronmwan 2021). The CEO of overconfidence commits tax avoidance actions for several reasons, such as the desire to show his competence in saving taxes and raising funds needed for investment activities.

Table 3. Hypothesis testing.

Dependent Variable: Tax Avoidance.		Model 1		Model 2		Model 3	
Variables	Expect Signs	Coeff	*p*-Value	Coeff	*p*-Value	Coeff	*p*-Value
ceoover	+	0.003 ***	(0.006)	0.003 ***	(0.007)	0.004 **	(0.022)
founder	−			−0.001	(0.544)	−0.001	(0.629)
descendant	−			−0.001	(0.403)	0.000	(0.977)
ceooverxfounder	(−/+)					0.000	(0.936)
ceooverxdescendant	(−/+)					−0.003	(0.416)
Control variables:							
mtb	−	−0.001 ***	(0.000)	−0.001 ***	(0.000)	−0.001 ***	(0.000)
roa	+	0.151 ***	0.000	0.151 ***	(0.000)	0.151 ***	(0.000)
loss	−	−0.001	(0.238)	−0.001	(0.279)	−0.001	(0.277)
size	+	0.005	(0.064)	0.001	(0.052)	0.001	(0.053)
cfo	+	−0.027 ***	(0.000)	−0.027 ***	(0.000)	−0.027 ***	(0.000)
intg	+	−0.004	(0.439)	−0.004	(0.466)	−0.004	(0.457)
family	−	0.003 ***	(0.000)	0.004 ***	0.000	0.004 ***	(0.000)
D.Year		included				included	
D.Ind		included				included	
Constant		−0.010	(0.000)	−0.010	(0.000)	−0.010	(0.000)
Adj. R2		0.496				0.498	
F Test		1716.470				1720.300	
F Sig.		0.000				0.000	
Observations		1484				1476	

, and * indicate statistical significance at the 5%, and 1% levels, respectively.

Testing the founder's direct relationship to tax avoidance showed insignificant results with a *p*-value of ≥0.1 on the second and third test models. These results show that the founder CEO has no different from a professional CEO in tax avoidance. Likewise, the results of descendant testing of tax avoidance showed a *p*-value of ≥0.1 on the second and third test models, which means that the descendant CEO has no difference from the professional CEO against tax avoidance. Testing the Ha2 hypothesis shows a *p*-value of ≥0.1 on the third test model, which means the relationship between CEO overconfidence and tax avoidance is not affected by companies led by a founder or professional CEO. The results of this study do not support the research hypothesis that reveals that the founder can be one of the governance functions of the company. Founder CEO will try to maintain their reputation and are long-term oriented so that they are more careful in carrying out actions that can harm the company in the future, such as tax avoidance (Chen et al. 2010). The founder's existence as the company's CEO cannot be separated from the strength of the company's management team (Hambrick and Mason 1984), such as supervision from the board of commissioners and the audit committee. In the two-tier governance system

adopted by Indonesia, the CEO is not the only corporate control center, in contrast to the one-tier governance system, where the CEO has more power to control the company's decision strategy.

The Ha3 test results show a *p*-value of ≥ 0.1 on the third test model, meaning the relationship between CEO overconfidence and tax avoidance is not affected by companies led by a descendant or professional CEO. Previous research has shown that descendant CEOs are usually more ignorant of a company's reputation and lack managerial experience, so they are more compelled to tax avoidance than founders and even professional CEOs (Chen et al. 2010). The findings of this study indicate that the relationship between CEO overconfidence and tax avoidance is not influenced by the presence of a descendant, founder, or professional CEO.

Associated with the context in Indonesia, implementing a two-tier governance system differs from a one-tier governance system centered on individual company leaders. The two-tier governance system separates the management and supervision functions so that the management team's role is more vital than the one-tier governance system, which is more centered on controlling specific individuals. Thus, the founder, descendant, or professional CEO status is not a decisive determining factor in the company's policies or decision-making. Instead, company policies or decisions are more based on the management team's role.

In addition, the founder, descendant, and professional CEO are just the CEO's status. They are not personality traits that can strongly influence how the CEO thinks to act in contrast to the characteristics of overconfidence which is an individual trait or character inherent in a person so that it will more or less affect how the individual thinks and acts in making a decision.

4.3. Sensitivity Testing

4.3.1. Testing CEO Overconfidence Using CEO Overconfidence Dummy Proxies, Overinvestment, Tone Analysis, and Net Emotion

Table 4 shows sensitivity testing carried out with CEO overconfidence proxies in the form of dummy variables, partial CEO overconfidence proxies, namely overinvestment, tone analysis, and net emotion. Testing CEO overconfidence using dummy variables is done by measuring a combination of several CEO overconfidence proxies, namely overinvestment, debt to total assets, dividend yield, tone analysis, and net emotion. If the combined score of the CEO overconfidence proxy is above three, give values of 1 and 0 if otherwise. Another sensitivity test is the partial CEO overconfidence proxy, such as overinvestment, tone analysis, and net emotion. CEO overconfidence testing using several different measurements is expected to determine which measurement model has high validity.

Table 4. Sensitivity testing of CEO overconfidence using dummy variable, overinvestment, tone analysis, and net emotion.

Dependent Variable: Tax Avoidance.	CEOOVERDUMMY				OVERINVESTMENT				TONEANALYSIS				NETEMOTION			
	Model 1		**Model 2**		**Model 1**		**Model 2**		**Model 1**		**Model 2**		**Model 1**		**Model 2**	
Variables	**Coeff**	**p-Value**	**Coeff**	**p-Value**	**Coeff**	**p-Value**	**Coeff**	**p-Value**	**Coeff**	**p-Value**	**Coeff**	**p-Value**	**Coeff**	**p-Value**	**Coeff**	**p-Value**
ceoover	0.001 ***	(0.009)	0.002 **	(0.014)	−0.0008	(0.053)	−0.001	(0.106)	0.00002	(0.981)	0.0004	(0.767)	−0.030	(0.194)	−0.0515	(0.086)
founder	−0.001	(0.590)	0.0002	(0.855)	−0.001	(0.620)	0.000	(0.683)	−0.001	(0.541)	−0.001	(0.489)	−0.001	(0.600)	−0.003	(0.106)
descendant	−0.001	(0.406)	−0.001	(0.543)	−0.001	(0.368)	−0.001	(0.302)	−0.001	(0.659)	0.001	(0.507)	−0.001	(0.688)	0.0004	(0.835)
ceooverxfounder			−0.001	(0.433)			0.001	(0.422)			0.001	(0.691)			0.0838	(0.092)
ceooverxdecendant			−0.001	(0.699)			−0.001	(0.216)			−0.003	(0.239)			−0.002	(0.968)
Control variables:																
mtb	−0.001 ***	(0.000)	−0.001 ***	(0.000)	−0.001 ***	(0.000)	−0.001 ***	(0.000)	−0.001 ***	(0.000)	−0.001 ***	(0.000)	−0.001 ***	(0.000)	−0.001 ***	(0.000)
roa	0.151 ***	(0.000)	0.151 ***	(0.000)	0.145 ***	(0.000)	0.146 ***	(0.000)	0.155 ***	(0.000)	0.155 ***	(0.000)	0.157 ***	(0.000)	0.157 ***	(0.000)
loss	−0.001	(0.269)	−0.001	(0.261)	−0.002	(0.076)	−0.002	(0.083)	−0.0001	(0.892)	−0.0002	(0.873)	−0.0002	(0.854)	−0.0001	(0.902)
size	0.001	(0.052)	0.001	(0.054)	0.0004	(0.139)	0.0004	(0.130)	0.0005	(0.129)	0.0005	(0.117)	0.0005	(0.127)	0.0005	(0.115)
cfo	−0.027 ***	(0.000)	−0.027 ***	(0.000)	−0.026 ***	(0.000)	−0.026 ***	(0.000)	−0.028 ***	(0.000)	−0.028 ***	(0.000)	−0.028 ***	(0.000)	−0.028 ***	(0.000)
intg	−0.004	(0.465)	−0.004	(0.467)	−0.004	(0.473)	−0.004	(0.456)	−0.005	(0.379)	−0.005	(0.377)	−0.005	(0.401)	−0.005	(0.400)
family	0.004 ***	(0.000)	0.004 ***	(0.000)	0.003 ***	(0.003)	0.003 ***	(0.003)	0.004 ***	(0.001)	0.004 ***	(0.001)	0.004 ***	(0.001)	0.004 ***	(0.001)
D. Year	included		included		included		included		included		included		included		included	
D. Ind	included		included		included		included		included		included		included		included	
Constant	−0.009 ***	(0.000)	−0.01 ***	(0.000)	−0.008 ***	(0.000)	−0.008 ***	(0.000)	−0.010 ***	(0.000)	−0.010 ***	(0.000)	−0.009 ***	(0.000)	−0.009 ***	(0.000)
Adj. R2	0.497		0.498		0.468		0.468		0.456		0.457		0.456		0.457	
F Test	1720.840		1717.870		1497.680		1501.020		1361.870		1362.740		1365.020		1371.890	
F Sig.	0.000		0.000		0.000		0.000		0.000		0.000		0.000		0.000	
Observations	1476		1476		1428		1428		1265		1265		1264		1264	

, and * indicate statistical significance at the 5%, and 1% levels, respectively.

In the results of the CEO overconfidence test against tax avoidance, only the CEO overconfidence measurement using a dummy variable showed a positive effect with a *p*-value of ≤ 0.05 in the first and second test models. Meanwhile, CEO overconfidence, measured using overinvestment, tone analysis, and net emotion, shows that there is no effect between CEO overconfidence and tax avoidance with a *p*-value of ≥ 0.05 in the first and second test models. The findings are inconsistent with the primary test. The result of the founder on the relationship between CEO overconfidence and tax avoidance on each proxy CEO overconfidence in the form of a dummy variable, overinvestment, tone analysis, and net emotion variables has a *p*-value of ≥ 0.05 in the first and second test models which means the relationship between CEO overconfidence and tax avoidance is not affected by a founder or professional CEO. The findings are consistent with the primary test.

In testing descendant CEOs on the relationship between CEO overconfidence and tax avoidance in all measurement models, CEO overconfidence in the form of dummy, overinvestment, tone analysis, and net emotion variables have a *p*-value of ≥ 0.05 in the first and second test models, which means the relationship between CEO overconfidence and tax avoidance is not affected by a descendant or professional CEO. The findings of those tests are consistent with the main tests.

Based on the correlation results of hypothesis testing using a combined score of the CEO overconfidence proxy (primary test) and other CEO overconfidence proxies in the form of a dummy variable, overinvestment, tone analysis, and net emotion, the validity assessment of the adjusted R2 higher when CEO overconfidence is measured using a combined score. Thus, the CEO overconfidence test using a combined score is considered better and can describe the overall characteristics of overconfidence compared to the partial proxy of CEO overconfidence.

4.3.2. Tax Avoidance Testing Using Taxable Cash Flows, Effective Tax Rate (ETR), and Long-Run Cash ETR

Table 5 shows that CEO overconfidence positively affects tax avoidance as measured using taxable cash flows and long-run cash ETR with a *p*-value of ≤ 0.05 on the first, second, and third test models. Meanwhile, CEO overconfidence has a positive effect on tax avoidance as measured using the ETR, showing a *p*-value of ≤ 0.05 in the third test model. The test results are consistent with the primary test using BTD proxies for tax avoidance variables. In testing the founder and descendant CEO on the relationship of CEO overconfidence and tax avoidance measured using taxable cash flows, ETR, and long-run cash ETR showed a *p*-value of ≥ 0.1 on the first, second and third test models. The relationship between CEO overconfidence and tax avoidance is not affected by the founder, descendant, or professional CEO. The results of those tests are consistent with the main tests.

Table 5. Sensitivity testing of tax avoidance using taxable cashflows, effective tax rate (ETR), and longrun cash ETR.

Dependent Variable: Tax Avoidance.	Taxablecashflows						Effective Tax Rate						Longrun Cash ETR					
	1		2		3		1		2		3		1		2		3	
Variables	Coeff	p-Value	Coeff	p-Value	Coeff	p-Value	Coeff	p-Value	Coeff	p-Value	Coeff	p-Value	Coeff	p-Value	Coeff	p-Value	Coeff	p-Value
ceoover	−0.066 ***	(0.005)	−0.067 ***	(0.005)	−0.062 **	(0.050)	−0.032	(0.116)	−0.033	(0.101)	−0.057 **	(0.031)	−0.048 **	(0.017)	−0.048 **	(0.018)	−0.057 **	(0.039)
founder			0.038	(0.127)	0.040	(0.254)			0.041 **	(0.044)	0.009	(0.758)			0.048 **	(0.043)	0.046	(0.157)
descendant			0.019	(0.445)	0.028	(0.455)			0.069 ***	(0.001)	0.055	(0.068)			0.012	(0.621)	−0.004	(0.897)
ceooverxfounder					−0.006	(0.911)					0.072	(0.132)					0.007	(0.889)
ceooverxdecendant					−0.020	(0.755)					0.035	(0.511)					0.038	(0.471)
mtb	0.007 **	(0.043)	0.009 **	(0.016)	0.009 **	(0.016)	−0.002	(0.491)	−0.002	(0.506)	−0.002	(0.495)	−0.007 **	(0.026)	−0.007 **	(0.026)	−0.007 **	(0.027)
roa	−1.179 ***	(0.000)	−1.185 ***	(0.000)	−1.179 ***	(0.000)	−0.037	(0.643)	−0.026	(0.742)	−0.025	(0.752)	−0.273 ***	(0.008)	−0.259 **	(0.013)	−0.259 **	(0.013)
loss	−0.313 ***	(0.000)	−0.311 ***	(0.000)	−0.310 ***	(0.000)	−0.007	(0.648)	−0.004	(0.780)	−0.005	(0.773)	0.040	(0.069)	0.042	(0.057)	0.0429	(0.054)
size	−0.005	(0.373)	−0.007	(0.262)	−0.007	(0.264)	−0.002	(0.636)	−0.002	(0.727)	−0.001	(0.750)	−0.002	(0.797)	−0.001	(0.854)	−0.001	(0.860)
cfo	−0.125	(0.106)	−0.126	(0.104)	−0.123	(0.110)	−0.024	(0.676)	−0.029	(0.616)	−0.032	(0.586)	−0.108	(0.110)	−0.104	(0.126)	−0.104	(0.125)
intg	0.114	(0.313)	0.114	(0.309)	0.114	(0.304)	0.022	(0.806)	0.023	(0.801)	0.020	(0.826)	0.073	(0.538)	0.073	(0.536)	0.075	(0.529)
family	−0.008	(0.674)	−0.035	(0.144)	−0.034	(0.142)	−0.012	(0.426)	−0.044 **	(0.019)	−0.044 **	(0.020)	−0.003	(0.880)	−0.029	(0.228)	−0.029	(0.232)
D. Year	included		included		included		included		included		included		included		included		included	
D. Ind	included		included		included		included		included		included		included		included		included	
Constant	0.445 ***	(0.000)	0.456 ***	(0.000)	0.453 ***	(0.000)	0.284 ***	(0.000)	0.280 ***	(0.000)	0.289 ***	(0.000)	0.394 ***	(0.000)	0.400 ***	(0.000)	0.403 ***	(0.000)
Adj. R2		0.140		0.147		0.148		0.020		0.037		0.039		0.069		0.077		0.076	
F Test		188.840		194.130		193.350		19.890		30.860		33.170		76.300		80.550		80.970	
F Sig.		0.000		0.000		0.000		0.401		0.076		0.078		0.000		0.000		0.000	
Observations		1001		994		994		1043		1035		1035		1078		1071		1071	

, and * indicate statistical significance at the 5%, and 1% levels, respectively.

5. Conclusions

The study examined the relationship between CEO overconfidence to tax avoidance. In addition, this study also examines the role of the founder and descendant CEO in influencing the relationship between CEO overconfidence and tax avoidance. The founder or descendant is predicted to bring value to the company because, as a founder or descendant, they will have more responsibility, commitment, and a high sense of ownership of the company, so as not to take actions that can damage the company's reputation in the future. This research proves that CEO overconfidence has a positive effect on tax avoidance. CEOs with overconfidence characteristics are more encouraged to raise funds for investment through tax efficiency. In addition, overconfident CEOs tend to want to demonstrate their competence and ability to save taxes. However, this research has not succeeded in proving the role of founder and descendant CEOs in influencing the relationship between CEO overconfidence and tax avoidance. The CEO's status as a founder or descendant is not a personal trait that can strongly influence the CEO in acting. These findings are also supported by the governance condition in Indonesia, which implements a two-tier system so that the role of the CEO in the company is not centralized on specific individuals and is not as strong as in countries with a one-tier governance system. The upper echelon theory (Hambrick and Mason 1984) states that the company's overall managerial team influences company strategy and policies.

This research has implications for the development of science, namely the relationship between CEO overconfidence and tax avoidance. These findings support the statement of upper echelon theory, which states that the leadership's characteristics will impact the company's policy strategy. The implication of this study on users of financial statements, such as investors, creditors, and regulators, is to pay more attention to the characteristics of the company's leadership (CEO overconfidence), which can affect the high level of corporate tax avoidance actions. High tax avoidance can result in several negative consequences for companies, such as the emergence of penalties or damage to the company's reputation in the future (Guenther et al. 2017).

This study has limitations, including: (1) the combined calculation of CEO overconfidence using the composite score index assumes that the weight of each CEO overconfidence measurement score is the same. This assumption negates the possibility of a difference in weight in each CEO overconfidence proxy score. Further research can be developed on other combined measurements that can reduce the bias of CEO overconfidence measurements, such as the use of principal component analysis. (2) This research only focuses on the characteristics of the CEO because they are considered a top leader who can be a reflection of the company itself. However, future research can include the characteristics of CFOs who have authority and responsibility in managing company finances and taxation. (3) This study only used a sample of non-financial companies in Indonesia. Thus the results of this study have not been widely generalized. Further research can be developed using research samples of ASEAN or Southeast Asian countries as a comparison so that the research results are more broadly generalized.

Note

[1] To overcome the data outliers, a winorizing (1, 99) was carried out on the book-tax difference (BTD) variables, return on assets, cash flows from operations, liquidity; winsorizing (2, 98) for the variable debt to total assets; while overinvestment, dividend yield, market to book, growth is done by winorizing (5, 95). Centering is done on the size variable to overcome multicollinearity.

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