

Anti-Corruption Disclosure and Firm Value: Can Female CEOs and CFOs Have Moderating Roles?

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This research aims to empirically examine the effect of anti-corruption disclosures on firm value and investigate the role of female CEOs and CFOs as a moderating variable in strengthening that influence. The sample consists of 302 companies in five selected sectors (mining, building construction, transportation, communication, and manufacturing) listed on the Indonesian Stock Exchange, which published annual reports for the period of 2016–2017. This research is a quantitative empirical research using a panel regression technique. The results show that the presence of women as President Directors (CEOs) has a positive effect on anti-corruption disclosures, while the presence of women as Financial Directors (CFOs) does not affect the corporate anti-corruption disclosure. The results also show that anti-corruption disclosure has a negative effect on firm value. Female CEOs and CFOs are found to be unable to strengthen the positive impact of anti-corruption disclosures on firm value. Corruption is a rampant problem in Indonesia, hence this research can provide valuable information to strengthen the market forces to demand more meaningful disclosures of anti-corruption efforts, as well as to strengthen the role of female executives in combatting corruption.

Keywords: *Anti-corruption, disclosure, firm value, gender, CEO, CFO.*

Research Background

One of the firm's goals is to increase shareholders' value. Increasing company value is also an indicator of improvement in firm performance. Firm performance can be measured by financial and market performance (Windah & Andono, 2013). This research uses market value as a proxy for firm value. Sujoko (2007) defined firm value as investors' perception towards the firm that can be correlated with the market value of shares. Firm value depicted

by its shares' market value means that when the share value increases, the firm value increases as well, and vice versa.

Some researchers have found factors that affect firm value, one of which is corporate social responsibility (CSR) disclosure (Nekhili et al., 2017; Li et al., 2018; Cahan et al., 2016; Dhaliwal et al., 2012). Nekhili et al. (2017), and Li et al. (2018) found that CSR disclosure has a positive impact on firm value. CSR disclosure benefits market players, such as shareholders, because it tends to affect firm value (Dhaliwal et al., 2012).

The foundation of CSR in economic activities includes the absence of bribery or corruption and the non-supporting of regimes that are considered corrupt and do not make any political contributions (Tanari, 2009). Based on the guidelines of CSR disclosure issued by GRI G4, one of the disclosures mandated is the firm's anti-corruption disclosure (GRI, 2013).

Joseph et al. (2016) found that firms with the best CSR in Indonesia disclose more information regarding anti-corruption practices, when compared to the firms with the best CSR in Malaysia. This indicates that although anti-corruption disclosure is voluntary, Indonesian companies do a better job of disclosing them, nevertheless.

The government's actions to support anti-corruption is realised in the President's Instruction No. 10 of the Year 2016 about Corruption Prevention and Eradication Acts. Regarding that, the National Standardization Body (*Badan Standard Nasional*—BSN) issued the Indonesian National Standard (*Standard Nasional Indonesia*—SNI) ISO 37001 in 2016. ISO 37001:2016 is an anti-bribery management system that is designed to help organisations or companies in establishing, implementing, maintaining, and improving anti-bribery programs (BSN, 2016). One of the indicators of the Anti-Bribery Management System (*Sistem Manajemen Anti Penyuapan*—SMAP), ISO 37001:2016, is organisation leadership, with leaders who are committed, responsible, and involved in the company's anti-corruption policies (BSN, 2016). The Chief Executive Officer (CEO) is the company's leader responsible for making decisions about the company's policies (Miller et al., 1982). However, the CEO does not lead alone but instead is assisted by the Board of Directors, one of them being the Chief Financial Officer (CFO). The CFO's role in a company is in the realms of the company's purchasing, financing, budgeting, and financial reporting activities (Nabielrafi, 2015). The Law of the Republic of Indonesia No. 40 of the Year 2007 about Limited Liability Companies (*Undang-Undang Republik Indonesia Nomor 40 Tahun 2007 Tentang Perseroan Terbatas*—UUPT) does not recognise the terms CEO and CFO. Based on Article 1 paragraph (5) UUPT, the recognised term is Directors. However, in Indonesia, the highest position in the executive board, responsible for all of the operational activities in a company, is known as the President Director. Meanwhile, the board, whose responsibility is related to the company's finance, is known as the Finance Director. The President Director is akin to the CEO because they have



similar roles, authorities, obligations, and responsibilities. The same goes for the Finance Director and the CFO.

Based on a global survey of 5,500 companies in 36 countries within Indonesia, approximately 46 per cent of executive boards are comprised of women (Toarik, 2017). This result places Indonesia in second place in countries with the most percentage of women occupying senior management positions. This survey also states that men and women have different views on risks and opportunities. In general, women will see risks from various aspects of the business and are more conservative than men. Moreover, women also tend to do more comprehensive and detailed reviews or research before making a big decision for the company (Debora, 2017).

This research gives empirical evidence about female CEO and CFO's roles in the decision-making process related to the firm's disclosure and efforts to increase the firm value. Some researchers have proven that women in the top management team (TMT) plays a role in companies (Chadwick & Alexandra, 2018; Tuliao & Chung, 2017; Post & Byron, 2015; Liao et al., 2015; Isidro & Sobral, 2015; Kritanti, 2012; Peni, 2014).

Based on previous research, this research studies the impact of the interaction between female CEOs and CFOs with anti-corruption disclosures to firm value. Putri (2018) researched the impact of anti-corruption disclosure on firm value by implementing the content analysis method on Transparency International to measure the firm's anti-corruption disclosure. Putri's (2018) research found that anti-corruption disclosure does not have any effect on firm value.

This research's contribution is the difference of the content analysis used to measure anti-corruption disclosure from previous research (Putri, 2018), in which the content analysis method from Dissanayake et al. (2012) is used instead. This is because the content analysis uses more comprehensive and various anti-bribery and anti-corruption guidance, such as Transparency International, World Bank, and the World Economic Forum. An additional contribution is that this research uses female CEOs and CFOs as a moderating variable since there have not been any research studies that examine the moderating effect of gender on the relationship between anti-corruption disclosure and firm value.

Indonesia is chosen as the research object due to the fact that the head of the Indonesian Corruption Commission (*Komisi Pemberantasan Korupsi-KPK*), Agus Rahardjo, stated that the growth of Indonesia's Corruption Perception Index (CPI) is the highest among other countries in the world (Rachman, 2018). Added to that, Indonesia is the number one country in the Asia-Pacific region that has the highest percentage of female corporate leaders (Toarik, 2017). The research period is selected to begin from 2016, because the government issued the

President's Instruction No. 10 of the Year 2016 about Corruption Prevention and Eradication Acts. In that same year, the National Standardization also issued the Indonesian National Standard ISO 37001:2016 about the Anti-Bribery Management System.

Based on that background, there are three research questions: 1) Do female CEOs and CFOs possibly improve anti-corruption disclosure?; 2) Does anti-corruption disclosure positively impact firm value?; and 3) Do female CEOs and CFOs strengthen the positive impact of anti-corruption disclosure to firm value?

The aim of this research is to provide answers to those three questions. The research results find that female CEOs have a positive impact on anti-corruption disclosure, while female CFOs do not affect anti-corruption disclosure. The results also show that anti-corruption disclosure negatively impacts firm value. Lastly, the research results find that gender does not strengthen the positive impact of anti-corruption disclosure to firm value. Further discussion about the research results will be described in the fourth section of the article. The second section explains the research's theories, followed by the research design in the third section. The final section contains the conclusions and research limitations.

Literature review and hypotheses development

Literature review

Firm Value

Firm value on this research is defined as market value. This is because a high firm value will give prosperity to shareholders due to the increasing price of the company's shares (Sujoko, 2007). Firm value can be inferred from the firm's equity, which is the firm's market or book value. James Tobin is a Nobel-winning economist that coined Tobin's Q Theory, the ratio used to measure firm value. This theory explains how monetary policies impact economies through equity measurement. Tobin defines q as the market value of firm shared through capital replacement costs (Weston & Copeland, 1997).

In this research, the firm value will be affected by three groups in the firm's balance sheet: the total assets, the total liabilities, and the firm's market capitalisation obtained from the multiplication of outstanding shares with its market value.

There have been many types of research concluding that a firm's value is impacted by many factors (Peni, 2014; Faccio et al., 2016; Brinkhuisa & Scholtensab, 2018), yet this research aims to study the impact of anti-corruption disclosure to firm value, moderated by female CEOs and CFOs.

Anti-Corruption Disclosure

Anti-corruption disclosure is a part of CSR disclosure. Gunawan and Corina (2017) stated that the emphasis on anti-corruption disclosure may possibly increase the awareness of the importance of anti-corruption practices, which can later increase the company's trust and reliability. Research related to anti-corruption disclosures have been undertaken (Islam et al., 2018; Lombardi et al., 2019; Gunawan & Corina, 2017; Barkemeyer et al., 2015; Dissanayake et al., 2011; Hoi & Lin, 2012; Joseph et al., 2016). Barkemeyer et al. (2015) analysed anti-corruption disclosure from 933 sustainability reports. Their results show a clear difference between countries and sectors on how far they communicate their anti-corruption involvements. However, the more companies are exposed to corruption, there is less possibility for them to communicate their anti-corruption involvements openly. The results also state that the effectivity on anti-corruption disclosure, as a part of sustainability reporting in the broader sense, is doubted.

Companies with good CSR practices also need to proof its reliability and that it does not practice corruption. From the CSR perspective, firms are urged to improve their operational environment, which is an important thing so that the public can maintain their trust in the firm (Gunawan & Corina, 2017). Chapple and Moon (2005) stated that one of the factors affected by CSR activities is the corruption rate.

Some research studies related to anti-corruption disclosure have been undertaken previously, however this research studies the impact of anti-corruption disclosure to firm value, moderated by female CEOs and CFOs.

Female CEOs and CFOs

The Organization for Economic and Development (OECD, 1999) defines corporate governance as a set of the firm's management, shareholders, and other parties with interests in the company. According to the Forum for Corporate Governance in Indonesia (FCGI, 2001), there are five principles in implementing corporate governance, which are transparency, accountability, responsibility, independence, and fairness, which is equal and fair treatments in fulfilling the stakeholders' needs that comes from applicable contracts and laws. To support those five principles, a good corporate governance mechanism is needed by the firm. In this research, those mechanisms are in the form of female CEOs and CFOs.

The CEO is the primary decision-maker in regard to the company's policy (Miller et al., 1982). The CEO is assisted by other board members in leading the company, one of them being the CFO. The CFO's role is related to the company's financing, purchasing, budgeting, and reporting activities in a company (Nabielrafi, 2015). In order to perform CSR and its

disclosure, the CEO's agreement as the top decision-maker and the CFO's agreement as the party responsible for financing activities, is needed. SOX part 302 about the Firm's Responsibility of Financial Reports states that the CEO and CFO of public companies are the parties who legitimise the firm's financial reports; therefore, the CEO and CFO are chosen to be this research's variables.

The upper echelon theory states that an organisation's result can partly be predicted by the characteristics of the top management team (Plöckinger et al., 2016). This research examines the characteristics of the CEO and the CFO based on their gender. According to Wood and Eagly (2009), men and women have different perceptions of leadership. Specifically, according to Eagly et al. (2003), men tend to be characterised by agenic attributes, while women are more communal (such as supportive, empathetic, and soft). Therefore, women care more about all stakeholders' welfare (Adams et al., 2011), and hence increase firm performance.

Theoretical Framework

The theories used are signalling theory, upper echelon theory, and efficient market hypothesis theory. Signalling theory explains stakeholders' reactions to information related to anti-corruption disclosure issued by firms through its annual report. The signalling theory is about signals done through communications and acts (Melewar, 2008). The firm will catch those signals as disclosure activities and hidden attributes of the stakeholders. Brigham and Houston (2009) found that the firm's signalling is an effort to tell investors about the quality of its management's performance to a firm's prospects. These signals are information related to activities done by management to realise the shareholders' wants. This information is important to investors because they impact on their decision-making process.

The upper echelon theory explains the roles that female CEOs and CFOs play in strengthening the relationship between anti-corruption disclosure and firm value. In 1984, Hambrick and P. Mason posited a management theory called the upper echelon theory (Hambrick & Mason, 1984). This theory states that an organisation's results are partially predicted by the top management's background characteristics (Plöckinger et al., 2016). The upper echelon theory (Hambrick & Mason, 1984) emphasises how the top management team's (TMT) cognitive framework is pivotal to decision making. This cognitive framework is a personalised interpretation of circumstances, such as information gathering and information evaluation, that ultimately comes from the individual's experiences, values, and personality (Chadwick & Alexandra, 2018).

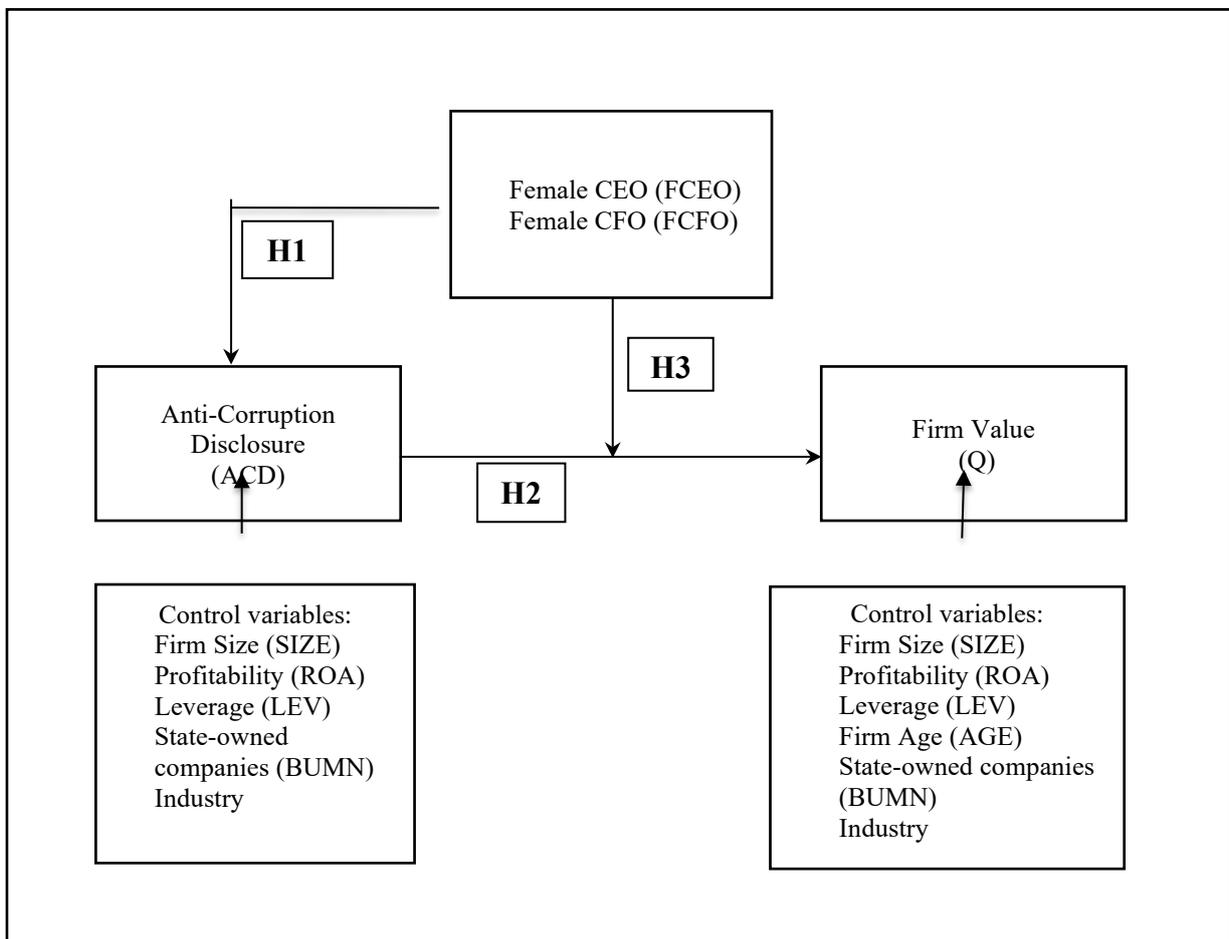
Based on the upper echelon theory, female CEOs can bring the unique cognitive framework to male-dominated TMTs (Chadwick & Alexandra, 2018), since they have different personal

and professional experiences than their male counterparts (Post & Byron, 2015). The general depiction of the differences between men's and women's experiences is related to their individual contexts; women are considered to maintain more relational, connected, and interdependent relationships rather than men, who have an independent self-construal mode (Gabriel & Gardner, 1999). Women have empathetic behaviours and priorities, generally and specifically, as leaders (Post, 2015).

The efficient market hypothesis theory explains the market's reaction to the information issued by firms through their annual reports. An efficient market is when the stock prices reflect all information, so that they are neither under or overpriced. In efficient markets, stock prices change very rapidly due to the existence of previously non-existing information (Fama, 1991).

Conceptual Framework

This research tests the impact of anti-corruption disclosure towards firm value with the female CEO and the female CFO as moderating variables. The theoretical framework of this research is as follows:



2.4. Hypotheses Development

2.4.1. The Impact of Female CEO and CFO Towards Anti-Corruption Disclosure

The upper echelon theory assumes that leadership characteristics, such as gender in this research, can form the leader's experience and value by influencing the processed information and how they process it. The upper echelon theory states that female leaders can bring unique cognitive frameworks to male-dominated TMT (Chadwick & Alexandra, 2018) because women tend to face different personal and professional experiences than their male counterparts (Post & Byron, 2015). The presence of females on the Board of Directors plays a crucial role in aligning managerial and shareholders' interests (Arayssi et al., 2016).

CEOs can begin by creating policies about CSR disclosure (Arayssi et al., 2016). One of the disclosures mandated as a CSR, is the anti-corruption disclosure (GRI, 2013). The research completed by Harjoto et al. (2014) shows that the presence of female directors in a company increases its CSR disclosure. Female directors tend to be more sensitive to ethical practices and responsive behaviours (Isidro & Sobral, 2015). Women are considered more ethical than men because women have a higher sensitivity towards ethical issues, are less likely to be involved in illegal activities, and tend to be more apt in making decisions whenever there are odd business practices (Glover et al., 2002). Women tend to be more compliant with laws and are less tolerant of corruption and bribery (Swamy et al., 2001; Alatas et al., 2009). Based on these explanations, the female presence is thought to have a positive impact on a company's anti-policy disclosure, so the first hypothesis in this research is:

H1a: The presence of a female CEO has a positive impact on anti-corruption disclosure.

H1b: The presence of female CFO has a positive impact on anti-corruption disclosure.

The Impact of Anti-Corruption Disclosure towards Firm Value

Firm value will be sustainable if a firm pays attention to the social, economic, and environmental dimensions. These dimensions are implemented in the firm's CSR activities. One of the disclosures mandated and related to CSR, is anti-corruption disclosure (GRI, 2013). Some literature finds that CSR disclosure has a positive impact on firm value (Nekhili et al., 2017; Li et al. 2018). However, those results differ from the findings of Cahan et al. (2016) who found that unexpected CSR disclosure has a positive impact towards firm value. From the CSR perspective, firms are urged to improve their operational environment, as an important factor to maintain the public perspective in giving the company trust (Gunawan & Joseph 2017). Chapple and Moon (2005) state that one factor determined by CSR activities is the corruption rate. Chung et al. (2015) state that comprehensive voluntary disclosure reduces agency problems more efficiently when a company has a high-quality corporate governance. Based on these explanations, the second hypothesis in this research is:

H2: Anti-corruption disclosure has a positive impact towards firm value.

The Moderating Role of the Female CEO and CFO towards the Relationship between Anti-Corruption Disclosure and Firm Value

The approach with the upper echelon theory states that female leaders can bring unique cognitive frameworks to male-dominated TMT (Chadwick & Alexandra, 2018), since women tend to face different personal and professional experiences than their male counterparts (Post & Byron, 2015). Men and women also have different perceptions of leadership (Wood & Eagly, 2009). Arzubiaga et al. (2018) found that the female presence in a firm can strengthen the impact of entrepreneurial orientation (EO) towards firm performance. Arayssi et al. (2016) found a positive interaction between gender diversity and social disclosure towards firm value. This means that when there is a high participation of women in top management, a firm's sustainability report is considered reliable, thus strengthening the firm's signalling, and thus increasing firm value. Based on these explanations, the third hypothesis in this research is:

H3a: The presence of a female CEO strengthens the positive relationship between anti-corruption disclosure and firm value.

H3b: The presence of a female CEO strengthens the positive relationship between anti-corruption disclosure and firm value.

Research Methods

Research Sample and Data

The research sample is companies in the mining, construction, transportation, telecommunication, and manufacturing industries listed in the Indonesian Stock Exchange during the period of 2016–2017. The five industries were selected based on the OECD 2014 survey, mentioning those as industries with the highest cases of corruption. The sampling method used is purposive sampling, so that a representative sample according to set criteria are obtained. The total number of observations completed in this research was 302 observations.

Research Variables

There are two dependent variables in this research, namely the anti-corruption disclosure as the dependent variable in the first model, and the firm value as the dependent variable in the second and third models. The independent variables are anti-corruption disclosure and the female CEO and CFO.

Table 3.1: Research Variables Operationalisation

Variable	Concept	Indicators	Scale
Firm Value (Q)	Stock market price (Fuente et al., 2017)	$Tobin's\ Q = \frac{(EMV + D)}{(TA)}$	Ratio
Anti-Corruption Disclosure (ACD)	Anti-corruption disclosure index disclosed in the annual report (Joseph et al., 2016)	Scored 1 if disclosed, 0 if otherwise. The disclosed amount is divided by item total.	Ratio
FCEO	Female CEO presence	Scored 1 if CEO is female, 0 if otherwise.	Dummy
FCFO	Female CFO presence	Scored 1 if CEO is female, 0 if otherwise.	Dummy
Firm size (SIZE)	Size of a firm	$SIZE = Ln(asset)$	Ratio
Firm age (AGE)	Age of a firm	$AGE = Ln(Firm\ IPO\ age)$	Ratio
Firm profitability (ROA)	Firm's ability to generate profit	$ROA = \frac{Net\ Income}{Total\ Assets}$	Ratio
Leverage (LEV)	Amount of asset financed by debt	$LEV = \frac{Total\ Debt}{Total\ Equity}$	Ratio
Industry (Ind)	Industry type	Scored 1 if in the mining industry, 0 if others.	Dummy
BUMN	State-owned company (BUMN)	Scored 1 if a state-owned company, 0 if others.	Dummy

In the first model, the female CEO and CFO act as independent variables, while in the second model, anti-corruption disclosure acts as the independent variable. The moderating variables used in this research are the female CEO and CFO that is interacted with the firm's anti-corruption disclosure. This research also has control variables, namely the firm's size, profitability, leverage, age, ownership (state-owned/otherwise), and industry. Table 3.1 displays the operationalisation of the research variables.

Research Model

There are three models in this research. Model 1 is used to test the positive impact of the female CEO and CFO towards anti-corruption disclosure. The hypothesis tested is the first hypothesis, namely that the female CEO and CFO have a positive impact on a firm's anti-corruption disclosure.

$$ACD_{it} = a + b_1FCEO_{it} + b_2FCFO_{it} + b_3SIZE_{it} + b_4ROA_{it} + b_5LEV_{it} + b_6BUMN_{it} + b_7Ind_{it} + e_{it}$$

(Model 1)

Model 2 is used to test the positive impact of anti-corruption disclosure on firm value. The hypothesis tested is the second hypothesis, namely that the anti-corruption disclosure has a positive impact on firm value.

$$Q_{it} = a + b_1ACD_{it} + b_2SIZE_{it} + b_3AGE_{it} + b_4ROA_{it} + b_5LEV_{it} + b_6BUMN_{it} + b_7Ind_{it} + e_{it}$$

(Model 2)

Model 3 is used to test the positive impact between anti-corruption disclosure and firm value with the female CEO and CFO as the moderating variables. The hypothesis tested is the third hypothesis, namely that the female CEO and CFO strengthens the positive relationship between anti-corruption disclosure and firm value.

$$Q_{it} = a + b_1ACD_{it} + b_2ACD_{it} \times FCEO_{it} + b_3ACD_{it} \times FCFO_{it} + b_4SIZE_{it} + b_5AGE_{it} + b_6ROA_{it} + b_7LEV_{it} + b_8BUMN_{it} + b_9Ind_{it} + e_{it}$$

(Model 3)

Where: Q is the firm value of i on year t. ACD is anti-corruption disclosure in the annual report. FCEO is female CEO, FCFO is female CFO, ACD*FCEO is the interaction between anti-corruption disclosure and the female CEO, ACD*FCFO is the interaction between anti-corruption disclosure and the female CFO, SIZE is the firm size (logarithm of total assets), AGE is firm's age, ROA is firm's profitability, LEV is leverage, Ind is industry, BUMN is a dummy variable for state-owned companies, and e is Error.

Results and Discussions

Descriptive Statistics

Table 4.3 displays the results of descriptive statistics from all samples, which include the firm value (Q), anti-corruption disclosure (ACD), female CEO (FCEO), female CFO (FCFO), firm size (SIZE), profitability (ROA), leverage (LEV), age (AGE), and state-owned companies (BUMN). The table shows that the firm value proxied by Tobin's Q has an average of 1.76, and maximum value of 21.71. The firm with the highest value is PT Unilever Indonesia, Tbk., a manufacturing company, while the firm with the lowest value of 0.23, is PT Tanah Laut, Tbk., a transportation company. The average anti-corruption disclosure in the three sectors in Indonesia is 18 per cent. The company with the most anti-corruption disclosure at the rate of 70 per cent is PT Pembangunan Perumahan (Persero), Tbk., a construction company. Moreover, the descriptive table also shows companies with female CEOs and CFOs, with 7.62 per cent or 23 persons, and 18.21 per cent or 55 persons, respectively.

Table 4.1: Descriptive Statistics

Variable:	Mean	Std.Dev	Min	Max
Tobin's Q	1,60	2,31	0,22	21,71
ACD	0,18	0,13	0	0.7
SIZE (Billion Rp)	3.202	5	40	295.830
ROA	4,35	10.633	-42.414	55,25
LEV	1,38	1.557	0.008	18,33
AGE	15,52	9.642	1	38
		Dummy = 0	Dummy = 1	
FCEO	0,076	92,38%	7,62%	
FCFO	0,187	81,79%	18,21%	
BUMN	0,079	92,05%	7,95%	
Q is the firm value (Tobin's Q). ACD is the anti-corruption index disclosed in the annual report. FCEO is a dummy, 1 if the CEO is female and 0 if otherwise. FCFO is a dummy, 1 if CFO is female and 0 if otherwise. SIZE is a firm's total asset (in billion Rp). AGE is a firm's age since IPO. ROA returns to assets or firm profitability. LEV is leverage measured by debt to equity. BUMN is dummy, 1 if firm is state-owned and 0 if otherwise.				

Source: Reprocessed STATA 14 results (2019)

Hypotheses Testing Results

The empirical results displayed in Table 4.2 shows that Hypothesis 1a (H1a) is accepted. This hypothesis states that the presence of a female CEO (FCEO) has a positive impact on the firm's anti-corruption disclosure (ACD). The results also show that the presence of a female CFO (FCFO) has no significant effect on the firm's anti-corruption disclosure. This indicates that Hypothesis 1 (H1b) is rejected. Furthermore, the control variables of firm size (SIZE) and state-owned companies (BUMN) have a positive impact on anti-corruption disclosure, while other control variables such as profitability (ROA), leverage (LEV), and firm's age (AGE), have no effect towards anti-corruption disclosure (ACD).

Table 4.2: Hypothesis 1 Testing Result

$ACD_{it} = a + b_1fCEO_{it} + b_2fCFO_{it} + b_3SIZE_{it} + b_4AGE_{it} + b_5ROA_{it} + b_6LEV_{it} + b_7BUMN_{it} + b_8Ind_{it} + e_{it}$						
Dependent = ACD	Hypothesis	Prediction	Result	Coef.	Std. Err.	P-value
FCEO	H1a	+	√	0.0357**	0.0211	0.091
FCFO	H1b	+	X	-0.0128	0.0242	0.597
SIZE				0.0160***	0.0067	0.017
ROA				-0.0005	0.0006	0.393
LEV				0.0002	0.0039	0.951
BUMN				0.1138***	0.0321	0.000
Industry						
2				0.0894**		
3				0.0418		
4				-0.0602		
5				-0.0145		
Prob > F = 0.000						
R-squared = 0.2140						
<p>*, ** and *** are significance indicator at 10%, 5%, and 1% (<i>one-tailed</i>) level respectively.</p> <p>ACD is anti-corruption disclosure index disclosed in the annual report. FCEO is dummy, 1 if the CEO is female and 0 if otherwise. FCFO is dummy, 1 if CFO is female and 0 if otherwise. SIZE is the natural logarithm of firm's total asset. ROA returns to assets or firm profitability. LEV is leverage measured by debt to equity. BUMN is dummy, 1 if firm is state-owned and 0 if otherwise. Industry is dummy, 2 is construction, 3 is transportation, 4 is telecommunication, and 5 is manufacturing.</p>						

Source: Reprocessed STATA 14 results (2019)

The Impact of the Female CEO towards Anti-Corruption Disclosure

The results in Table 4.2 show that the presence of female CEOs has a positive impact on anti-corruption disclosure, which means that H1a is accepted. The upper echelon theory states that an organisation's result can be partially predicted by TMT's managerial background characteristics (Plöckinger et al., 2016). Isidro and Sobral (2015) state that when compared to male directors, female directors tend to be more sensitive to ethical practices and socially responsive to behaviours. Moreover, women are more compliant with laws, risk-averse, and less tolerant of corruption and bribery (Swamy et al., 2001; Alatas et al., 2009).

García-Sánchez et al. (2019) found that female directors are positively correlated with disclosing more balanced, comparable, and reliable information. Harjoto et al. (2014) state that the presence of female directors in a company increases CSR disclosure. This result is also consistent with the results from Arayssi et al. (2016), stating that the female presence on the board can increase credibility and ability in environmental, social, and corporate governance disclosure. The research also indicates that social disclosure has a direct effect on shareholders' wealth when female directors have a relatively higher participation on the board (Arayssi et al., 2016).

The Impact of the Female CFO towards Anti-Corruption Disclosure

Table 4.2 shows that the presence of female directors does not affect the firm's anti-corruption disclosure, meaning that H1b is rejected. According to Kartikarini and Mutmamanah (2013), the female CFO has no significant effect towards voluntary corporate governance disclosures because CFOs are more involved in financial analysis and corporate control, while the party who makes strategic management decisions is the CEO. This result is inconsistent with the upper echelon theory that assumes that the leader's characteristics, such as gender in this research, will form their experiences and values by means that affect processed information and how they process it in their environment. The characteristic of being female as a CFO does not have any effect on the firm's anti-corruption disclosure.

The Impact of Control Variables towards Anti-Corruption Disclosure

Table 4.2 shows that the control variables of firm size (SIZE) and state-owned companies (BUMN) have a positive impact on anti-corruption disclosure (ACD). Meanwhile, profitability (ROA) and leverage (LEV) does not affect anti-corruption disclosure.

The results of the hypothesis testing on Table 4.3 show the regression results of model 2 to test hypothesis 2, and model 3 to test hypothesis 3a and 3b. H2's test results show that anti-corruption disclosure has a negative impact on firm value, which means that the H2 is

2		-			-	
3		0.6907*			0.6869**	
4		**			0.1908	
5		0.19488			0.2111	
		-0.2587			0.2755	
		0.28231				
Prob F	0.0005			0.0011		
R-squared	0.3501			0.3503		
<p>Description: *, ** and *** are significance indicators at 10%, 5% and 1% (one-tailed) level respectively. Q is a firm value (Tobin's Q). ACD is anti-corruption disclosure index disclosed in annual reports. ACD*FCEO is the interaction between anti-corruption disclosure and the female CEO. ACD*FCFO is the interaction between anti-corruption disclosure and the female CFO. SIZE is the natural logarithm of the firm's total asset. AGE is the natural logarithm of a firm's age since IPO. ROA returns to assets or firm profitability. LEV is leverage measured by debt to equity. BUMN is dummy, 1 if firm is state-owned and 0 if otherwise. Industry is dummy, 2 is construction, 3 is transportation, 4 is telecommunication, and 5 is manufacturing.</p>						

Reports consisting of anti-corruption disclosure can only act as a form of the firm's lip service; in other words, the firm only does it because it is mandated by the regulators. However, in the end, the firm transforms this anti-corruption disclosure into their own benefits, because the average of anti-corruption disclosure in this research is only 18 per cent. This is similar to the results of Sampong et al. (2018), which states that managers can do CSR to their own advantage by sacrificing the effort to maximise shareholders' value. CSR can give signals to the investors that the managers are responsible in acting for their interests, so that share prices will drop when investors find out that management is doing CSR that is not in line with the shareholders' interests (Baird et al., 2012).

The Impact of the Female CEO as a Moderating Variable in The Relationship Between Anti-Corruption Disclosure and Firm Value

The rejection of Hypothesis 3a shows that a female CEO does not have a moderating effect on the relationship between anti-corruption disclosure and firm value. The upper echelon theory states that TMT's characteristics may affect a firm's decision. In reality, the results from this research show that the characteristic of the CEO as a female, with different characteristics than their male counterparts, cannot strengthen the positive relationship between anti-corruption disclosure to firm value. The results of the research done by Brinkhuis and Scholtens (2018) show that investors do not differentiate their valuation of a

company after the appointment of either a male or female CEOs, with no statistically significant difference in the market reaction after said appointment (Brinkhuis & Scholtens, 2018).

The Impact of the Female CFO as a Moderating Variable in The Relationship Between Anti-Corruption Disclosure and Firm Value

Hypothesis 3b is also rejected, meaning that there is no moderating effect of the presence of female CFOs towards the relationship between anti-corruption disclosure and firm value. The upper echelon theory states that the characteristics of TMT affect the firm's decisions. However, the results of this research cannot strengthen the positive impact of anti-corruption disclosure towards firm value.

Faccio et al. (2016) state that a firm's investors are less responsive to firm value when the firm is run by female directors. CFOs are responsible for the firm's financing, purchasing, budgeting, and reporting activities (Nabielrafi, 2015). Faccio et al. (2016) state that female CFOs cannot allocate capital as efficiently as their male counterparts. Research completed by Brinkhuis and Scholtensab (2018) also found that there is no statistically significant difference in the market's reaction after the appointment of either a male or female director.

The Impact of Control Variables towards Firm Value

Table 4.3 shows that the control variables of firm profitability (ROA) and leverage (LEV) have a positive impact on firm value. The results show that when a firm's profitability increases, its value also increases. The results also show that leverage (LEV) has a significant positive impact towards firm value. The firm's size (SIZE) has no significant effect towards firm value. The firm's age (AGE) has no significant effect on firm value. The control variable BUMN also shows no significant effect on firm value.

Sensitivity Analysis

The sensitivity analysis testing is done to test the firm's value in the following year (Tobin's Q_{t+1}). The test is completed because the data-gathering for anti-corruption disclosure is done through the company's annual report, so there exists a possibility that the disclosure has long-term effects, not only in the same year but also in the following year. The results of the analysis test are displayed in Table 4.4.

The results in Table 4.4 show a consistent result with the previous findings, that anti-corruption disclosure has a negative impact on firm value. The results also show that the female presence as a CEO or CFO cannot strengthen the positive relationship between anti-corruption disclosure and firm value. These consistent results mean that the long-term effect

of anti-corruption disclosure towards firm value shows the same results in the current year. Based on the efficient market hypothesis of semi-strong markets, which state that share price is formed from present and past information, this research's results show that the share price, as an indicator of firm value, has a negative impact towards a firm's anti-corruption disclosure.

Table 4.4: Sensitivity Analysis Testing Results

Variable	Model 2			Model 3		
	Predictio n	Coef.	P-value	Predicti on	Coef.	P-value
	$Q_{it+1} = a + b_1ACD_{it} + b_2SIZE_{it} + b_3AGE_{it} + b_4ROA_{it} + b_5LEV_{it} + b_6BUMN_{it} + b_7Ind_{it} + e_{it}$			$Q_{it+1} = a + b_1ACD_{it} + b_2ACD_{it} \times FCEO_{it} + b_3ACD_{it} \times FCFO_{it} + b_4SIZE_{it} + b_5AGE_{it} + b_6ROA_{it} + b_7LEV_{it} + b_8BUMN_{it} + b_9Ind_{it} + e_{it}$		
ACD	+	- 1.6382* *	0.0155			
ACD*FC EO				+	-0.7342	0.245
ACD*FC FO				+	0.4537	0.270
SIZE		0.0283	0.329		0.0260	0.343
ROA		0.1165* **	0.000		0.1166** *	0.000
LEV		0.2268* **	0.008		0.2266** *	0.009
AGE		0.0727	0.314		0.0799	0.300
BUMN		0.4119	0.092		0.4078*	0.096
Ind 2 3 4 5		- 0.6065* * 0.1935 -0.3045 0.2827*			- 0.5974** 0.1864 -0.2289 0.2723	
Prob F	0.0003			0.0006		
R-squared	0.3437			0.3442		

Details:

*, ** and *** are significance indicator at 10%, 5%, and 1% (*one-tailed*) level respectively.

Q_{t+1} is the firm value (Tobin's Q) in the following year. ACD is anti-corruption disclosure index disclosed in annual reports. ACD*FCEO is the interaction between anti-corruption disclosure and the female CEO. ACD*FCFO is the interaction between anti-corruption disclosure and the female CFO. SIZE is the natural logarithm of the firm's total asset. AGE is the natural logarithm of a firm's age since IPO. ROA returns to assets or firm profitability. LEV is leverage measured by debt to equity. BUMN is dummy, 1 if firm is state-owned and 0 if otherwise. Industry is dummy, 2 is construction, 3 is transportation, 4 is telecommunication, and 5 is manufacturing.

Conclusion

This research concludes that the female CEO has a positive impact towards anti-corruption disclosure, while a female CFO does not affect anti-corruption disclosure. The results also find that anti-corruption disclosure negatively impacts firm value. The moderating variables of female CEO and female CFO do not strengthen the positive relationship between anti-corruption disclosure and firm value.

This research's limit is in its short research period, consisting of only two periods in the year 2016–2017. The suggestion for upcoming studies is to use a more extended research period, such as to compare results from the period before the issuance of the President's Instruction No. 10 of Year 2016 about Corruption Prevention and Eradication Acts, and before the issuance of SNI ISO 37001 about the Anti-Bribery Management System, with the period after the issuance, so that a different result might occur.

Furthermore, the limitation of this research is in the measurement of the female CEO and CFO and only uses their presence by a dummy variable. Future research can measure the roles of female CEOs and CFOs with proxies, such as their career path, background, and experiences; similar to that undertaken by Wang et al., (2018).

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