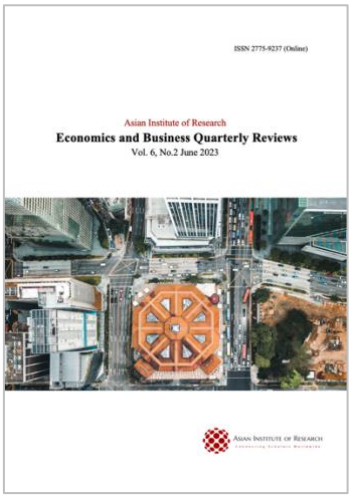

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Fraudulent Financial Reporting and Fraud Pentagon: Case Study on Indonesia Stock Exchange

Abdul Hafiz Tanjung[1], Elvina Fitriani[1]

[1] National PASIM University, Bandung, Indonesia

Correspondence: Abdul Hafiz Tanjung, National PASIM University, Bandung, West Java, Indonesia. Tel: 08112221170. E-mail: hafiztanjung1970@gmail.com

Abstract
This study aimed to determine the fraud pentagon elements that significantly predict fraudulent financial reporting (FFR) in public companies listed on the Indonesian Stock Exchange in the consumer sector in 2018-2020. The study population comprised 176 public companies in the consumer cyclical and non-cyclical sectors listed on the Indonesia Stock Exchange determined by purposive sampling. Therefore, this study was conducted on 78 public companies in the consumer cyclical and non-cyclical sectors. Accordingly, the data was collected from a sample of 59 FFR and 19 non-FFR companies classified using the M-Score. The data collected were analyzed using multiple logistic regression. The results showed that three elements of fraud pentagon significantly predict financial fraud reporting on public companies listed on the Indonesia Stock Exchange. The three predicting elements are arrogance by the frequent number of CEOs' picture proxy, competence by undeclared policies on doubtful debts and accounts receivable, and rationalization by accounting policy proxy changes. Additionally, the changes in accounting policies proxy were the most significant predictor.

Keywords: Fraud Pentagon, Fraudulent Financial Reporting, Indonesia Stock Exchange

1. Introduction

Fraud is a crime frequently perpetrated by lower to upper-level employees, as well as accountants in companies (Dellaportas, 2013). Many reported FFR cases had eroded public trust in the accounting and auditing profession (Mohamed & Handley-Schachelor, 2014).

The Association of Certified Fraud Examiners Indonesia Chapter # 111 (ACFEIC) (2020) reported that 239 fraud cases in Indonesia caused a loss of IDR873,430,000,000 in 2019, with an average loss per fraud case of IDR7,248,879,668. Meanwhile, 38.5% of the cases resulted in a loss of IDR1,000,000,000 and above. The 2020 ACFEIC survey showed that financial report fraud has fewer cases than corruption and state or company asset misuse. However, this causes the largest average loss for the institution or companies for each case.

Studies on accounting fraud mainly focus on auditing and internal context control in fraud prevention and detection (Payne & Ramsay, 2005; Dellaportas, 2013). The financial report summarizes operational activities and describes the companies' financial condition prepared by management. The report is intended for shareholders, investors, and creditors. Moreover, the financial report is the management's accountability and efficiency in managing the resources entrusted to them (Mohamed Yusof, 2016). Management generally wants the companies' performance to be seen as proper by the financial report users. Therefore, this often promotes management to manipulate and commit deliberate fraudulent actions by removing data or changing numbers in the report. This is referred to as fraudulent financial reporting (FFR) (Spathis, 2002; Beneish et al., 2012; Huang et al., 2014). According to Dalnial et al. (2014b), FFR occurs in every company and becomes the spotlight in the public's and regulators' eyes. This is because FFR is the most detrimental to organizations and could be implemented by individuals in all professions. It usually occurs by falsifying the financial report to gain some advantage (Dalnial et al., 2014a). According to Beasley et al. (2010), FFR has significant consequences for companies and public trust in the capital market and other stakeholders. Consequently, this raises concerns about the financial reporting process's credibility and questions the role of auditors and regulators.

This study aimed to examine FFR in public companies listed on the Indonesia Stock Exchange (IDX) in 2018-2020 in the consumer sector. The analysis used the Fraud Pentagon approach proposed by Marks Jonathan (2012) with its five elements, including Arrogance, Competence, Opportunity, Rationalization, and Pressure, as fraud predictors. The study intended to determine the fraud pentagon elements that significantly predict fraudulent financial reporting in public companies listed on the consumer sector IDX in 2018-2020.

2. Literature Review and Hypotheses Development

2.1 Agency Theory

Agency theory provides a rich theoretical framework to understand processes within companies from the perspective of principals and agents (Boučková, 2015). The theory deals with explicit and implicit arrangements in information asymmetry between principal agents. It is also a rational choice of the interdependent principals and agents, though with different goals (Verstegen, 2001).

Jensen & Meckling (2019) stated that an agency relationship is a contract where agents must work on the principals' behalf. In this case, principals delegate decision-making authority to the agents. This contractual relationship maximizes utility for both parties only when the agents do not always act in the principals' interest. The explanation by Jensen & Meckling (2019) denotes that an agent may carry out the FFR.

2.2 Fraudulent Financial Reporting

Accounting scandals committed by public companies listed on the stock exchange have raised investor concerns about governance (Dunn, 2004). Fraudulent financial reporting involves exaggerating assets, sales, and profits or understating liabilities, expenses, or losses (Spathis, 2002). The increase in financial reporting fraud in public companies listed on the stock exchange raises concerns among investors, auditors, creditors, and other stakeholders (Razali & Arshad, 2014). According to previous studies, companies conducting FFR are motivated by poor financial performance, the desire to meet analyst estimates, compensation and incentive structures, and external funding (Zhang et al., 2022). Furthermore, studies showed that the need for external funding positively relates to the FFR reported (Erickson et al., 2000; Burns & Kedia, 2006). According to Beneish et al. (2012), FFR intentionally omits or misrepresents money or information that should be disclosed in the financial report.

2.3 Fraud and Fraud Pentagon

ACFEIC (2020) defined fraud as the misuse of positions for personal gain through organizational resources or assets. According to Albrecht et al. (2018), fraud includes all the ways human ingenuity could design to gain an advantage over others with false representations.

Marks Jonathan (2012) stated that the Fraud Pentagon is the predictor with five elements, including Arrogance, Competence, Opportunity, Rationalization, and Pressure. Each element was explained by Marks Jonathan (2012) as follows: Arrogance is the superiority or greed attitude of individuals believing they are not subject to internal control. Competence is the employees' ability to override internal controls, develop sophisticated fraud strategies, control social situations, and invite others to commit fraud for their benefit. Furthermore, an opportunity is a weak internal control that allows someone to commit fraud. Rationalization is justification for theft or fraud acts, while pressure is a motive to commit and conceal fraud. The five elements were used as variables in this study.

2.4 Hypotheses Development

2.4.1 Arrogance is an FFR Significant Predictor

The fraud pentagon theory by Marks Jonathan (2012) explains arrogance as an attitude of superiority shown by individuals in companies. It considers that the individuals are big egos, indicating they are non-subject to internal controls within the companies. This attitude could only be shown by the Chief Executive Officer (CEO), whose big egos resemble celebrities more than business people. In this study, the arrogance variable was proxied by the frequent number of CEOs' pictures in the companies' annual financial reports. Mohamed Yusof (2016) stated that numerous CEOs' pictures could significantly predict their arrogance.

A previous study in Malaysian public companies found that the frequent number of CEOs' pictures was the FFR significant predictor (Mohamed Yusof, 2016). The same result was reported by Chyntia Tessa & Harto (2016), Apriliana & Agustina (2017), and Siddiq et al. (2017) for Indonesian public companies. Based on this explanation, the first hypothesis was proposed as follows:

H_1: Frequent number of CEO pictures is FFR significant predictor in public companies in Indonesia.

2.4.2 Competence is an FFR Significant Predictor

Most studies relate competence to the financial variables' manipulation in the financial report, such as sales, receivables, and allowance for doubtful accounts receivable (Mohamed Yusof, 2016). In this study, competence was first proxied by undeclared policies on doubtful debts and accounts receivable in the annual financial report, as applied by Mohamed Yusof (2016). Hoberg & Lewis (2017) found that fraudulent management hides major issues, explains less about the sources of companies' performance, and reveals more of its positive impact.

Mohamed Yusof (2016) stated that undeclared policies on doubtful debts and accounts receivable predict FFR. Based on this explanation, the second hypothesis was proposed as follows:

$H_{2.1}$: Undeclared policies on doubtful debts and accounts receivable significantly predict the FFR in public companies in Indonesia.

CEOs are appointed to exercise management decision-making to maximize shareholder value. In this regard, underperforming shareholders consider whether to retain or dismiss underperforming CEOs. This encourages CEOs to report better results (Habib & Hossain, 2013). An individual's organizational position or function could provide the ability to create fraud. Moreover, this individual is smart enough to understand and utilize internal control weaknesses and use their position, function, or authority. A study found that 46% of fraud cases were committed by managers or executives (Wolfe & Hermanson, 2004).

Wolfe & Hermanson (2004) stated that applying routine changes to CEOs minimizes opportunities for fraud based on long-term knowledge of their functions and controls. Therefore, this study used the change of directors as the second proxy for the competence variable. Siddiq et al. (2017) reported in Indonesian public companies that a change of directors significantly and negatively predicts the FFR. Based on this explanation, the second hypothesis was proposed as follows:

$H_{2.2}$: The change of directors significantly and negatively predicts the FFR in public companies in Indonesia.

2.4.3 Opportunity Significantly Predicts the FFR

Rae & Subramaniam (2008) stated that opportunity is an internal control system's weakness exploited by employees, allowing fraud to occur. According to C. Albrecht et al. (2010), the opportunities for conducting FFR include a weak board of directors, inadequate internal controls, and the ability to obscure fraud in complex transactions. Drew & Drew (2010) found that companies with weak internal controls want to see whether employees exploit these weaknesses to commit fraud. Companies should hire financial experts with the knowledge and skills to analyze complex financial transactions. Therefore, this study proxied the first opportunity variable with the quality of external auditors.

Alleyne et al. (2013) and Ravisankar et al. (2011) stated that professional auditors should follow the ethics code to detect and report errors such as fraud due to their strategic position in conducting audits. In this regard, the Public Accounting Firm (PAF) is considered able to improve the companies' financial report quality to minimize the FFR possibility (DeAngelo, 1981). Large PAFs have internal policies and consistently implement them to achieve audit quality (Francis et al., 2013). In Indonesian public company, Apriliana & Agustina (2017) reported that the opportunity variable with a proxy for the external auditor quality significantly and negatively predicted the FFR. Therefore, the third hypothesis was proposed as follows:

$H_{3.1}$: The quality of external auditors significantly and negatively predicts the FFR in Indonesian public companies. Mohamed Yusof (2016) measured opportunity from an organizational perspective using a proxy for the board directors composition comprising executive and non-executive directors. The imbalance is the weakness in internal control, allowing management to practice FFR. The many non-executive directors in the board directors composition have a low level of FFR (Zhizhong et al., 2011). In line with this, Mohamed Yusof (2016) stated that the board directors' composition significantly predicts the FFR.

The proxy used in this study is the board commissioners' composition, as stipulated in the Financial Services Authority Regulation Number 33/POJK.04/2014 concerning Directors and Board Commissioners of Issuers or Public Companies. Based on this explanation, the third hypothesis was proposed as follows:

$H_{3.2}$: The high number of independent commissioners on the board of commissioners significantly negatively predicts the FFR in public companies in Indonesia.

2.4.4 Rationalization Significantly Predicts the FFR

The fourth fraud pentagon theory element is rationalization, implying the justification for theft or fraud in companies (Marks Jonathan, 2012). Shelton (2014) stated that rationalization is how people justify fraud. According to Ravisankar et al. (2011), the choice of rationalization depends on the individual and the conditions they face.

Syahria (2019) found that someone first seeks rationalization before committing fraud. Change in auditors is one way to rationalize because it eliminates traces of fraud found by previous auditors. This promotes companies to replace independent auditors or public accounting firms (PAF) to cover up fraud (Syahria, 2019). Therefore, this study first proxied rationalization through the change in auditors. Previous studies on public companies in Indonesia found that changes in auditors significantly predicted the FFR (Siddiq et al., 2017; Syahria, 2019). Based on this explanation, the fourth hypothesis was proposed as follows:

$H_{4.1}$: Change in auditor significantly predicts the FFR in Indonesian public companies.

Rationalization is a fraud risk factor that leads to the FFR (Mohamed Yusof, 2016). It justifies fraudulent behavior resulting from a lack of personal integrity or other moral reasons (Rae & Subramaniam, 2008). Mohamed Yosuf (2016) measured rationalization from an organizational perspective and showed that companies change accounting

policies based on accounting standards. However, companies could justify fraud while disguising FFR actions through various accounting policies. Chen et al. (2021) stated that company executives grow overconfident with time and adopt more aggressive accounting practices, increasing FFR.

Based on the explanation, the second proxy for the rationalization variables are the changes in accounting policies. Regarding Malaysian public companies, Mohamed Yosuf (2016) stated that changes in accounting policies significantly predicted the FFR. Therefore, the second hypothesis was proposed as follows:

$H_{4.2}$ Changes in accounting policies significantly predict the FFR in Indonesian public companies.

2.4.5 Pressure Significantly Predicts the FFR

The fifth element of the fraud pentagon theory is pressure, usually arising from personal unshareable issues. The inability to share problems motivates others to commit fraud (Dellaportas, 2013). According to Vona (2012), personal and company factors influence individuals' pressure. Personal factors could be caused by lifestyles exceeding income. In contrast, company factors result from offering companies' shares to executives and implementing performance-based salary schemes. Dandira (2011) stated that financial analysts, news media, and internet blogs pay more attention to executive compensations in companies' performance. Therefore, company factors with salary schemes could motivate executives to carry out FFR (Mohamed Yusof, 2016).

Companies that commit fraud often change their growth performance to present a positive image to shareholders. This happens even when the actual performance mismatches the stated financial report (C. Albrecht et al., 2010). Growth was linked with fraud by Lou & Wang (2009), Mohamed Yusof (2016), Apriliana & Agustina (2017), Siddiq et al. (2017), Aprilia (2017), and Syahria (2019).

Apriliana & Agustina (2017), Siddiq et al. (2017), Aprilia (2017), and Syahria (2019) in the Indonesian public found that the pressure differences with the proxy for asset growth significantly predict the FFR. In this study, the pressure variable was proxied by ROA growth, the same proxy used by Mohamed Yusof (2016). Therefore, the fifth hypothesis was proposed as follows:

H_5: ROA growth significantly predicts FFR in Indonesian public companies.

3. Methods

3.1 Operationalization and Variable Measurement

This study used FFR as the Dependent Variable (DV) to classify public companies in the FFR category using the M-Score formula (Herawati, 2015). The M-Score formula was quoted from Aghghaleh et al. (2016):
M-Score = -4.84 + 0.92* DSRI + 0.528*GMI + 0.404* AQI + 0.892*SGI + 0.115*DEPI – 0.172*SGAI + 4.679*TATA – 0.327*LVGI
Note:
DSRI = Days' Sales in Receivable Index
GMI = Gross Margin Index
AQI = Asset Quality Index
SGI = Sales Growth Index
DEPI = Depreciation Index
SGAI = Sales, General, and Administrative Expenses Index
TATA = Total Accruals to Total Assets Index
LVGI = Leverage Index

Companies whose M-Score < -2.22 do not carry out FFR in the accounting period. In contrast, those with an M-Score > -2.22 carry out the FFR in the accounting period.

The Independent Variables (IV) are the five fraud pentagon elements with their proxies for a complete operationalization and measurement shown in Table 1:

Table 1: Variable Operationalization and Measurement

Variable	Proxy Variable	Formula	Measurement	Scale
FFR (DV)	M-*Score*	M-Score = -4.84 + 0.92* DSRI + 0.528*GMI + 0.404* AQI + 0.892*SGI + 0.115*DEPI – 0.172*SGAI + 4.679*TATA – 0.327*LVGI	Dummy variable = 1 if the public companies' M-Score > -2.22 otherwise = 0	Nominal
Arrogance (IV)	*Frequent number of CEOs' pictures* (CEOPIC)	-	Number of CEO pictures in the Annual Report	Interval
Competence (IV)	*Undeclared policies on doubtful debts and accounts receivable* (UNDPOL)	-	Dummy variable = 1 if it does not announce the doubtful accounts and accounts receivable policy, otherwise = 0	Nominal
	Change of directors (COD)	-	Dummy variable = 1 if there is a change of directors during the observation period, otherwise = 0	Nominal
Opportunity (IV)	*Quality of external auditor* (QOEA)	-	Dummy variable = 1 if not using the audit services of the BIG 4 Public Accounting Firm, otherwise = 0	Nominal
	Composition of the board of commissioners (COBOC)	-	Dummy variable = 1 if the composition of independent commissioners is 30%, otherwise = 0	Nominal
Rationalization (IV)	*Change in Auditor* (CIA)	-	Dummy variable = 1 if there is a replacement of the Public Accounting Firm during the observation period, otherwise = 0	Nominal
	Changes in accounting policies (CACCP)	-	Dummy variable = 1 if there is a change in accounting policy during the observation period, otherwise = 0	Nominal
Pressure (IV)	*Growth ROA* (GROA)	$\frac{ROA_t - ROA_{t-1}}{ROA_{t-1}}$	ROA growth percentage	Ratio

3.2 Population and Sample

The study population comprised 176 public companies in the consumer cyclical and non-cyclical sectors listed on the Indonesia Stock Exchange determined by purposive sampling. The study excluded 11 companies because the financial reports were not presented in IDR. Subsequently, 63 companies were excluded because the annual financial reports were unavailable consecutively during the 2018- 2020 period. The last 24 companies were issued

because the annual financial report did not provide complete data to calculate the M-Score value. Therefore, this study was conducted on 78 public companies in the consumer cyclical and non-cyclical sectors. The samples were classified into companies implementing FFR and those not, using the M-Score formula. The results showed 59 sample companies implemented FFR, while 19 did not.

3.3 Data Analysis

Each variable proxy was examined using data in the annual financial report form for three years. The data were sourced from the Indonesia Stock Exchange at Jenderal Sudirman Kav Street, No. 52-53, South Jakarta, 12190, Indonesia. The dependent variable was a categorical non-metric or binary variable with two categories. The independent variables comprised numerics with non-metric variables. Therefore, the most appropriate analytical tool is multiple logistic regression (Field, 2009; Hair Jr Joseph et al., 2009). This multiple logistic regression could be used to estimate the relationship between dependent categorical and predictor variables (Hair Jr Joseph et al., 2009). The multiple logistic regression equation is as follows:

$$FFR = \alpha_0 + \beta_1 CEOPIC_i + \beta_2 UNDPOL_i + \beta_3 COD_i + \beta_4 QOEA_i + \beta_5 COBOC_i + \beta_6 CIA_i + \beta_7 CACCP_i + \beta_8 GROA_i$$

Note:

FFR	= Fraudulent financial reporting
CEOPIC	= Frequent number of CEOs' picture
UNDPOL	= Undeclared policies on doubtful debts and accounts receivable
COD	= change of directors
QOEA	= Quality of external auditor
COBOC	= composition of the board of commissioners
CIA	= Change in Auditor
CACCP	= Changes in accounting policies
GROA	= Growth ROA

Classification prediction accuracy and pseudo R^2 values were used to determine the goodness-of-Fit-of the multiple logistic regression estimated model (Hair Jr Joseph et al., 2009). The classification prediction accuracy was determined by calculating the probability value (Agresti, 2018). The pseudo R^2 value used was Nagelkerke's because its coefficient value could reach a value of one (Field, 2009). Additionally, interpreting Nagelkerke's coefficient value is similar to interpreting the value of R^2 in multiple linear regression (Field, 2009; Hair Jr Joseph et al., 2009).

The Wald test used the formula developed by Field (2009) to determine the significant effect of each independent variable on the dependent variable. The test could also be performed by comparing the sig value with the specified α level. The multiple logistic regression coefficients are significant when the sig value is less than the specified α. Moreover, the independent variable with the most dominant effect on the dependent variable was determined using the Standardized Effects with the formula quoted from Agresti (2018). The variable with the most significant standardized effect value is the most influential. All data were processed using SPSS version 20 with a significant level of 95% for hypothesis testing.

4. Results

4.1 Descriptive Statistic

This study used three categorical variables, the first being competence proxied by UNDPOL and COD. The results showed that 37 (47.44%) of the 78 sample companies did not declare policies regarding doubtful debt and accounts receivable. Furthermore, 24 companies (30.77%) changed directors, as indicated in Table 2. The second variable is opportunity proxied by QOEA and COBOC. Regarding QOEA proxies, 48 companies (61.54%) did not use PAF BIG 4. Furthermore, three companies (3.85%) had COBOC ≤ 30%, while 75 companies (96.15%) had COBOC > 30%.

The third categorical variable is rationalization proxied by the CIA and CACCP. Nine companies (11.54%) changed auditors for CIA proxies, while 69 (88.46%) did not. Moreover, 55 companies (70.51%) changed their accounting policies, while 23 companies (29.49%) did not. Table 2 describes the frequency of categorical variables resulting from logistic regression.

Table 2: Categorical Variable Frequency

Variable	Proxy		Frequency	%
Competence	UNDPOL	Undeclared	37	47.44
		Declared	41	52.56
	COD	Change	24	30.77
		Not Change	54	69.23
Opportunity	QOEA	Not BIG 4	48	61.54
		BIG 4	30	38.46
	COBOC	≤ 30%	3	3.85
		> 30%	75	96.15
Rationalization	CIA	Change	9	11.54
		Not Change	69	88.46
	CACCP	Change	55	70.51
		Not Change	23	29.49

4.2 Logistic Regression Results

This study tested eight hypotheses regarding how fraud pentagon elements significantly predict FFR in the consumer sector IDX. The elements include arrogance with CEOPIC proxies, competence with UNDPOL, and COD proxies, the opportunity with QOEA and COBOC proxies, and rationalization with CIA and CACCP proxies. Moreover, GROA was used to proxy pressure, while hypothesis testing used multiple logistic regression. Tables 3 and 4 show the results of multiple logistic regression and Standardized Effects calculations results.

Table 3: Logistic Regression Results

Variable	Proxy	Coefficient	Wald	Sig	Description
Arrogance	CEOPIC	1.746	4.413	0.036	Significant
Competence	UNDPOL	3.692	4.168	0.041	Significant
	COD	-1.710	0.708	0.400	Not Significant
Opportunity	QOEA	0.567	0.156	0.693	Not Significant
	COBOC	-0.832	0.025	0.875	Not Significant
Rationalization	CIA	0.698	0.148	0.700	Not Significant
	CACCP	4.710	9.620	0.002	Significant
Pressure	GROA	0.276	1.619	0.203	Not Significant
Constant					
Nagelkerke R Square		= 0.844			
Predicted with correct classification					
Non FFR		= 84.2%			
FFR		= 98.3%			
Overall		= 94.9%			

Table 4: Calculation results of Standardized Effects

Variable	Proxy	Logistic Regression Coefficient	Standard Deviation	Standardized $(\widehat{\beta}_j s_{x_{J^*}})$	Effects

Arrogance	CEOPIC	1.746	1.214	2.119
Competence	UNDPOL	3.692	0.503	1.856
	COD	-1.710	0.465	-0.794
Opportunity	QOEA	0.567	0.490	0.278
	COBOC	-0.832	0.194	-0.161
Rationalization	CIA	0.698	0.322	0.224
	CACCP	4.710	0.459	2.162
Pressure	GROA	0.276	2.493	0.688

5. Discussion

5.1 Arrogance

The calculations showed that the arrogance variable proxied by CEOPIC has a logistic regression coefficient of 1.746, a Wald value of 4.413, and a sig value of 0.036, as indicated in Table 3. The sig value of 0.036 is smaller than the specified alpha significance level of 0.05 (sig 0.036 < α 0.05). This indicates that the arrogance variable with the CEOPIC proxy significantly predicts the FFR occurrence in public companies listed on the consumer sector IDX. It means that more photos of the CEO in the annual financial report indicate more FFR in these public companies. The results support Mohamed Yusof (2016) regarding public companies in Malaysia. Public companies in Indonesia show the same results, strengthening Chyntia Tessa & Harto (2016), Apriliana & Agustina (2017), and Siddiq et al. (2017).

5.2 Competence

Table 3 shows that the logistic regression coefficient of the UNDPOL proxy competence variable is 3.692, with a Wald value of 4.168 and a sig of 0.041. The sig value of 0.041 is smaller than the alpha of 0.05 (sig 0.041 < α 0.05). It means that the UNDPOL proxy competence variable significantly predicts the FFR occurrence in public companies listed on the consumer sector IDX. This result supports Mohamed Yusof (2016). Furthermore, the significance value for the COD proxy is 0.400, as shown in Table 3, which exceeds alpha 0.05 (sig 0.400 > α 0.05). This means that the COD proxy does not predict the FFR occurrence in public companies listed on the IDX in the consumer sector. However, the results for the COD proxies contradict Siddiq et al. (2017).

5.3 Opportunity

Opportunity variables with QOEA and COBOC proxies have sig values of 0.693 and 0.875, respectively, as shown in Table 3. This sig value exceeds the alpha level of 0.05, equaling a sig of 0.693 and 0.875 > α 0.05. These results contradict Apriliana & Agustina (2017). It indicates that the opportunity variable with two proxies, QOEA and COBOC, does not predict FFR in public companies listed on the IDX in the consumer sector.

5.4 Rationalization

Rationalization was proxied by the CIA and CACCP. For the CIA proxy, the sig value was 0.700, as shown in Table 3, exceeding the alpha level of 0.05 or sig 0.700 > α 0.05. This means the CIA proxy does not predict the FFR in public companies listed on the IDX in the consumer sector. The CACCP proxy has a logistic regression coefficient of 4.710, a Wald value of 9.620, and a sig value of 0.002. This sig value is lower than the alpha level of 0.05 (sig 0.002 < α 0.05). This result signifies that the CACCP proxy significantly predicts FFR occurrence, strengthening Mohamed Yusof (2016).

5.5 Pressure

The pressure variable was proxied by GROA. Table 3 shows that the sig value for the GROA proxy from the calculation results is 0.203. This sig value exceeds alpha 0.05 (sig 0.203 > α 0.05), showing that the GROA proxy does not predict FFR, contradicting Mohamed Yusof (2016).

5.6 Standardized Effects

The consumer sector is determined by significant standardized effects regarding the variables predicting FFR in public companies listed on the IDX. The rationalization variable with the CACCP proxy has a standardized effect of 2.162. Also, it is the largest standardized effect value of all proxies, as illustrated in Table 4. This denotes that the proxy for accounting policy changes significantly predicts the FFR in public companies listed on the IDX in the consumer sector. It is followed by the variable arrogance proxied by the frequent number of CEOs' pictures. The next following variable is competence proxied by undeclared policies on doubtful debts and accounts receivable.

6. Conclusion, Limitation, Future Research

This study aimed to examine fraud pentagon elements that significantly predict FFR in public companies listed on the consumer sector IDX. The results showed that arrogance, competence, and rationalization proxied CEOPIC, UNDPOL, and CACCP to predict FFR. Moreover, the CACCP proxy was a significant predictor compared to other proxies studied. These results are supported by the goodness of fit of the estimated model with a correct classification rate for Non-FFR companies of 84.2%, FFR companies of 98.3%, and an overall score of 94.9% (Table 3). The findings support Dalnial et al. (2014a) and Dalnial et al. (2014b) that the classification is correct when around 73% of the sample predictions are correct for FFR and non-FFR companies. Moreover, they are reinforced by the Nagelkerke R Square value obtained at 0.844. This implies that the study compatibility of the multiple logistic regression model is 84.4%.

This study took samples only from public companies listed on the IDX in the consumer sector. Therefore, it did not fully describe the public companies listed on the IDX. Future studies could expand the sample coverage to the consumer and other sectors. The sectors to be studied include those where the annual financial reports are calculated based on Gross Margin Index (GMI). Furthermore, the studies could use the M-score to classify FFR and non-FFR companies.

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