

## The Influence of Pentagon Fraud on Fraudulent Financial Reporting in Companies Registered on the IDX BUMN20 Indonesia Stock Exchange for the 2020-2022 Period

\*Indah Cahya Sagala, Devi Ayu Putri Sirait, Rut Nopiyanti Sitorus

Accounting Study Programme, Faculty of Economic and Business, Universitas Medan Area, Indonesia

\*indahcahyasagala@staff.uma.ac.id, deviputrisrt@gmail.com, ruthnoviantysitorus23@gmail.com

Corresponding Author: Indah Cahya Sagala

**Abstract:** Financial Statement Fraud is fraud or manipulation of a company's financial statements to show the best condition of the company so that investors are interested and/or retain the funds owned by the company. This research is intended to analyze the influence of the factors in the fraud Pentagon theory on fraudulent financial reports in companies listed on IDX BUMN20 on the Indonesia Stock Exchange for the 2020-2022 period. The proxy variables used in this research are Pressure proxied by Financial Target and External Pressure, Opportunity proxied by Ineffective Monitoring, Rationalization proxied by Change of Auditor, Competence proxied by Change of Director, and Arrogance proxied by Frequent Number of CEO's Picture and Fraudulent financial reporting measured by F-Score. The data used in this research is secondary data obtained from the annual reports of companies listed on IDX BUMN20 on the Indonesia Stock Exchange for the 2020-2022 period. The number of samples used was 18 samples from companies selected through the purposive sampling technique. The data analysis used in this research is logistic regression analysis. The research results show that the partial test results do not influence each of the independent variables, namely financial target, external pressure, ineffective morning, change of auditor, change of directors, and frequent number of CEO's pictures on fraudulent financial reporting, but the simultaneous test results show that there is an influence the entire independent variable to the dependent variable is fraudulent financial reporting.

**Keywords:** *Fraud Pentagon Theory, Fraudulent Financial Reporting, Fraud*

### 1. Introduction and Background

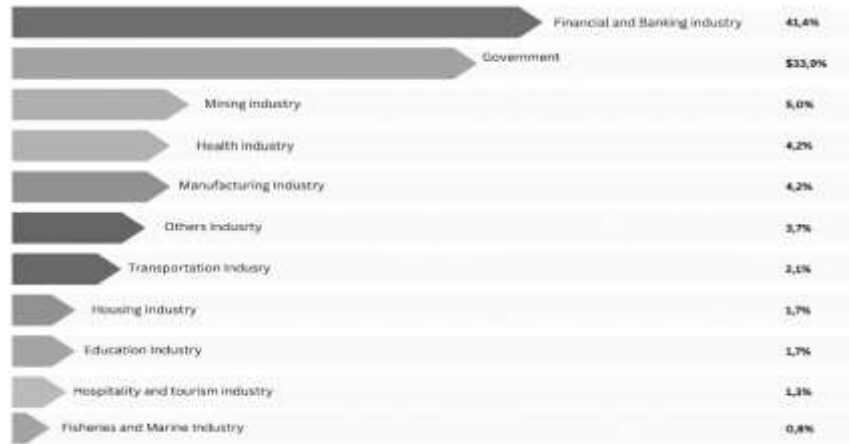
According to the Association of Certified Fraud Examiners (2020), Fraud is from an abusive position To get profit through abusive sources of Power or organizational assets. There is the most detrimental fraud in Indonesia corruption, abuse report finances, and misuse of assets or state and corporate wealth (ACFE, 2020). Meanwhile, fraud acts are reported in finance and are called fraudulent financial reporting. Fraud in report finance is the thing that can bring loss of goods from facet finance and non-financial. Fraud can happen anytime and anywhere, individually or in a group, too with place and time. Fraudulent financial reporting is an act that violates laws implemented by the company for several goals, for example, to maintain and improve a good image for the company, so that investors believe for do investment in the company. Fraudulent Financial Reporting is no Action ethical manipulating companies report finance with on purpose (Prischayani, 2020). Fraudulent Financial Reporting can happen in various countries, including Indonesia. According to the results Indonesian fraud survey in 2019, several Lembaga or organizations are harmed by fraud among them are state companies (BUMN), namely 31.8%, and the following chart institutions or Organizations most harmed by fraud

**Figure 1: Type of Organization or the institution that is most disadvantaged because of fraud (ACFE, 2020)**



Whereas type The industry most harmed by fraud is industry banking that is amounting to 41.4%. Following the chart type most industries are disadvantaged Because of fraud

**Figure 2: Types of industries that are most disadvantaged because of fraud (ACFE, 2020)**



Industry banking is the most disadvantaged industry due to fraud, according to data on companies registered on IDX BUMN20 6 ( six ) companies banks are included in the list, which companies the is company large banking sector in Indonesia. The IDX BUMN20 indexed companies are 20 (twenty ) state-owned companies whose shares have become share choices between other state-owned companies.

There have been fraud cases in Indonesia Lots happened, like cases at the company banking There is a case of Century Bank and Citibank Indonesia, companies flight like Garuda Indonesia. Although the government has arranged through regulations and laws regarding fraud, such actions still occur and fraud occurs the consequence function implementation of prevention and detection is Still not enough (Annisya & Asmaranti, 2016).

In Fraudulent Financial Reporting, 5 (five) assumptions are always made in every case. Assumptions the found in the Fraud Pentagon theory. The Pentagon Fraud Theory is a theory put forward by (Howarth, 2011), and a theory that is developed from theories previously namely the fraud triangle and fraud diamond. The assumptions in question in Pentagon fraud theory, namely opportunity (opportunity), pressure (pressure), rationalization (rationalization), competence (competence) and arrogance (arrogance). So, there are phenomena and problems the researcher is interested In fraud report research finances that occur in state-owned companies registered on IDX BUMN20.

## 2. Literature Review

### Fraudulent Financial Reporting

Connection theory with this research is see factor pusher somebody do fraud, because someone who will decide something behavior certain own intention and consideration certain (Ajzen, 1991).

### Theory of Planned Behavior

Connection theory with this research is to see factor pusher somebody do fraud because someone who will decide something behavior certain own intention and consideration certain. (Ajzen, 1991).

### Agency Theory

Agency Theory is connecting theory between agents with stakeholders, where in practice often happen differences in interest between them so will give rise to agency problems (Jensen & Meckling, 1976). The connection between agency theory and this research is how management as agents gets pressure from

stakeholders to increase performance finances, so the pressure will impact accountants, because accountants There is under control by management, the possibility of the occurrence of fraud in reports finance will the bigger.

### Pentagon Fraud Theory

Pentagon fraud theory is a theory expressed by Howarth (2011). This theory identifies factors that push somebody to commit acts of fraud. The elements of the Pentagon fraud are pressure, opportunity, rationalization, competence, and arrogance.

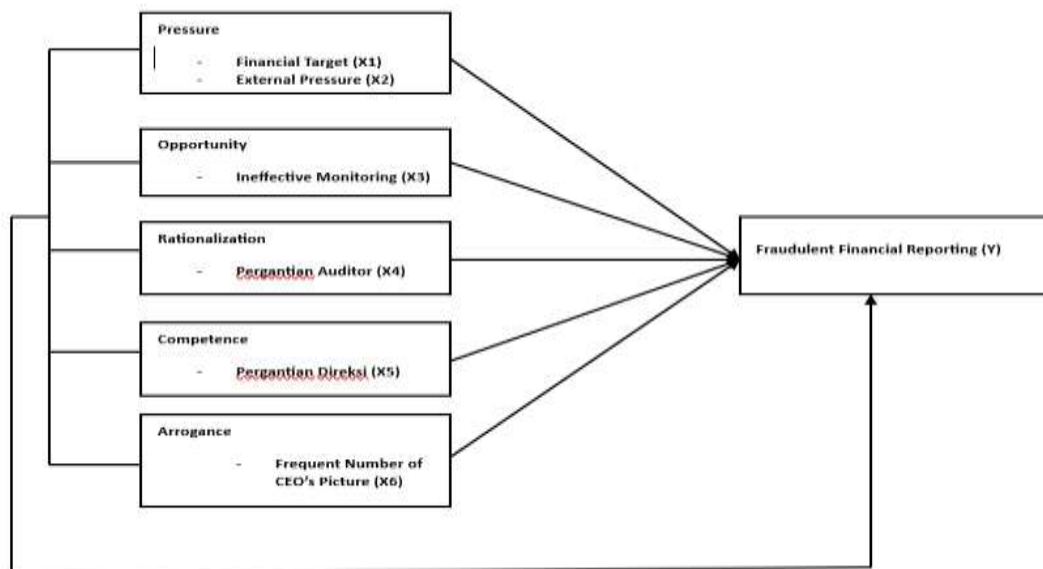
Figure 3: Pentagon Fraud Theory (Howarth, 2011)



- Pressure (Pressure), according to SAS No.99 in element sign several types of conditions cause someone to carry out fraudulent actions, namely financial targets, financial stability, and external pressure.
- Opportunities, according to SAS No.99, are conditions that create opportunities for fraud namely nature industry, ineffective morning, and organizational structure.
- Rationalization, according to SAS No.99, rationalization be measured through changes in the auditor, the auditor's opinion, and also through the state of total accrual shared with the total assets company.
- Competence (competence), this element is the ability of somebody to manipulate internal controls, creating strategies for profitability Alone (Howarth, 2011).
- Arrogance (Arrogance), is the attitude of superiority of somebody. Elements of arrogance can be measured by the frequency emergence of CEO photos, the style of autocratic leadership, as well the existence of CEO duality (Yusof, 2016).

### Development Hypothesis

Figure 4: Framework Draft (processed data,2024)



As for the formulation The hypothesis in this research is as follows:

H 1: Financial targets influence fraudulent financial reporting

H 2: External Pressure affects fraudulent financial reporting

H 3: Ineffective monitoring has an effect against fraudulent financial reporting

H 4: Change of external auditor influential against fraudulent financial reporting

H 5: Change of directors influential against fraudulent financial reporting

H 6: Frequent number of CEO's Picture is influential against fraudulent financial reporting

H7: Financial targets, External pressure, Ineffective monitoring, Change of auditor, Change of directors and Frequent number of CEO's pictures are influential to fraudulent financial reporting.

### 3. Research Methodology

This research is a study method quantitative, to analyze the influence independent variable, namely Pentagon fraud against variable dependent namely fraudulent financial reporting. A deep sample of this research is reporting finances and reports annual BUMN companies indexed by IDX BUMN20 for 2020 to 2022. The method used is the purposive sampling method. 3 ( Three ) Criteria in the determination sample study First, the company listed on the IDX BUMN20 index for 2020-2022. Second, the company serves to report finances and reports annually in a way complete during 2020-2022, and third, companies that use Rupiah currency in reporting, so that the criteria measurement marks eye the money The same. So that can conclude this research uses a sample of as many as 17 companies for 3 years of observation. Deep data analysis This research uses analysis descriptive and analytical logistic regression i.e. consists of testing the feasibility of the regression model, testing the entire model, testing the significance of individual parameters ( wald test), and using the SPSS application.

The following is a summary of the operational definitions and measurements of the independent and dependent variables in this research:

**Table 1: Operational definitions and measurements**

| Variable Name                         | Scale                                     | Measurement   |
|---------------------------------------|---|---|
| <b>Fraudulent Financial Reporting</b> | Nominal                                   | Dummy variable, if F Score>1 is coded 1, FScore<1 is coded 0(Agusputri & Sofie, 2019)   |
| <b>Financial Target</b>               | Independent Variable<br>PRESSURE<br>Ratio | ROA = Net Profit/Total Assets(Quraini, 2018)  |
| <b>External Pressure</b>              | Ratio                                     | Leverage = Total Debt/ Total Assets(Bayagub et al., 2018)   |
| <b>Ineffective Monitoring</b>         | OPPORTUNITY<br>Ratio                      | BDOUT = Number of Independent Commissioners/Total Board of Commissioners(Agustina & Pratomo, 2019)  |
| <b>Change of Auditor</b>              | RATIONALIZATION<br>Nominal                | Dummy variable, number 1 if there is a change in public accounting firm, number 0 if there is no change in public accounting firm.(Agusputri & Sofie, 2019) |
|                                       | COMPETENCE                                |   |

|   |           |   |
|---|-----------|---|
| <b>Change of Directors</b>              | Nominal   | Dummy variable, number 1 changes directors, and 0 does not change directors(Agusputri & Sofie, 2019)                |
|   | ARROGANCE |   |
| <b>Frequent number of CEO's picture</b> | Ratio     | Frequent number of CEO's picture Ratio Total CEO photos in a company's annual report (Septriyani & Handayani, 2018) |

#### 4. Results

##### Analysis Statistics Descriptive

**Table 1: Analysis Results Statistics Descriptive Amount company which has a risk of conducting Fraudulent Financial Reporting**

| Fraudulent Financial Reporting |           |               |
|--------------------------------|-----------|---------------|
| Valid                          | Frequency | Valid Percent |
| Fscore <1                      | 8         | 15.7          |
| Fscore >1                      | 43        | 84.3          |

Source: data processed by SPSS (2024)

Analysis results descriptive that shows score > 1 then the company own possibility risk carried out a high level of fraudulent financial reporting, whereas in Table 2 it was 84.3% of the total sample study is a company that owns the high risk of fraudulent financial reporting. Whereas If the score is <1 then the company's own possibility risk of low levels of fraudulent financial reporting, table 2 shows there are 15.7% who have low levels of fraudulent financial reporting.

##### Significance Test of Individual Parameters (Wald Test)

**Tabel 2: Wald Test**

|                           | Wald  | df | Sig. |
|---------------------------|-------|----|------|
| X1ROA                     | 1,454 | 1  | ,228 |
| X2LEV                     | 2,148 | 1  | ,143 |
| X3BDOUT                   | ,057  | 1  | ,812 |
| Step 1 <sup>a</sup> X4CPA | ,000  | 1  | ,999 |
| X5DCHANGE                 | ,606  | 1  | ,436 |
| X6CEOPIC                  | 1,629 | 1  | ,202 |
| Constant                  | 3,203 | 1  | ,074 |

Source: data processed by SPSS (2024)

With the number of observations as many as (n=51) and the number of independent and dependent variables as many as (k=7), then the degree of freedom (df) = n-k = 51-6= 45, where the level of significance  $\alpha = 0.05$ . The table can be calculated using the MS Excel formula with the insert function formula as follows:

t- table = TINV (Probability,deg\_freedom)

t- table = TINV (0.05,45)

t- table = 2.014103

Based on Table 2, the results of hypothesis testing using logistic regression analysis can be obtained as follows: The first hypothesis (H1) is that Financial Target has a positive and significant effect on fraudulent financial reporting. The results of the Wald (t) test show that the t-count value is smaller than the t-table (1.454<2.0141)

and the probability value is greater than its significance level ( $0.228 > 0.05$ ). Based on the test results, it can be concluded that the financial target states that it does not affect fraudulent financial reporting.

The second hypothesis (H2) is that External Pressure has a positive effect on fraudulent financial reporting. The results of the Wald test (t) show that the t-count value is smaller than the t-table ( $2.148 > 2.0141$ ) and the probability value is greater than the significance level ( $0.143 > 0.05$ ). Based on the test results, it can be concluded that external pressure does not affect fraudulent financial reporting.

The third hypothesis (H3) is that ineffective monitoring has a positive and significant effect on fraudulent financial reporting. The results of the Wald (t) test show that the t-count value is greater than the t-table ( $0.057 < 2.0141$ ) and the probability value is smaller than the significance level ( $0.812 > 0.05$ ). Based on the test results, it can be concluded that ineffective monitoring does not affect fraudulent financial reporting.

The fourth hypothesis (H4) is that the change of external auditors has a positive effect on fraudulent financial reporting. The results of the Wald (t) test show that the t-count value is greater than the t-table ( $0.000 < 2.0141$ ) and the probability value is smaller than the significance level ( $0.999 > 0.05$ ). Based on the test results, it can be concluded that the change of external auditors states that it does not affect fraudulent financial reporting.

The fifth hypothesis (H5) is that the change of directors has a positive and significant effect on fraudulent financial reporting. The results of the Wald (t) test show that the t-count value is greater than the t-table ( $0.606 < 2.0141$ ) and the probability value is smaller than the significance level ( $0.436 > 0.05$ ). Based on the test results, it can be concluded that a change of directors states that it does not affect fraudulent financial reporting. The sixth hypothesis (H6) is that the change of directors has a positive and significant effect on fraudulent financial reporting. The results of the Wald (t) test show that the t-count value is greater than the t-table ( $0.606 < 2.0141$ ) and the probability value is smaller than the significance level ( $0.436 > 0.05$ ). Based on the test results, it can be concluded that a change of directors states that it does not affect fraudulent financial reporting.

### Simultaneous Significance Test (Omnibus Test)

**Table 3: Omnibus Test Results**

|        |       | Chi-square | df | Sig. |
|--------|-------|------------|----|------|
|        | Step  | 13,572     | 6  | ,035 |
| Step 1 | Block | 13,572     | 6  | ,035 |
|        | Model | 13,572     | 6  | ,035 |

Source: data processed by SPSS (2024)

With the number of observations as many as ( $n=51$ ) and the number of independent and dependent variables as many as ( $k=7$ ), then the degree of freedom ( $df1 = k-1 = 7-1 = 6$ ) and ( $df2 = n-k = 51-6 = 45$ ), where the level of significance  $\alpha = 0.05$ . Then F table can be calculated using the MS Excel formula with the insert function formula as follows:

F Tabel = FINV (Probability, deg\_freedom1, deg\_freedom2)

F tabel = FINV (0.05,6,45)

F tabel = 2.308273

Based on the table, the F count value can be obtained greater than the F table ( $13.572 > 2.308273$ ) with a significance level ( $0.03 < 0.05$ ), then H7 is accepted. Based on the table above, financial targets, external pressure, ineffective monitoring, Changes in auditors And directors, and the frequency of CEO pictures have a simultaneous effect on fraudulent financial reporting.

### Discussion

#### The influence of financial targets on fraudulent financial reporting

Test result hypothesis (H1) shows that the pressure element is the proxied financial target through ROA value that is not influential against fraudulent financial reporting. These results are in agreement with research

conducted by (Sari & Sukirman, 2013) and (Henny et al., 2015) which shows that financial stability is not influential to fraud report finance.

#### **The influence of external pressure on fraudulent financial reporting**

Test result hypothesis (H2) shows that The pressure element is the external pressure that is proxied through leverage not influential against fraudulent financial reporting. These results are in agreement with research conducted by (Farmashinta & Yudowati, 2019), (Aprilia, 2017) and (Ulfah et al., 2017)

#### **The Effect of Ineffective Monitoring on Fraudulent Financial Reporting**

Test result hypothesis (H3) shows that The Opportunity element is proxied to ineffective monitoring with BDOUT no influential against Fraudulent Financial Reporting. These results are supportive of research conducted by (Irfan, 2022) and (Damayani et al., 2017).

#### **Influence Change of External Auditor against Fraudulent Financial Reporting**

Testing hypothesis (H4) shows that elements of Rationalization namely change of external auditor No influence against Fraudulent Financial Reporting. These results are in agreement with research conducted by (Damayani et al., 2017), (Quraini, 2018), and (Warsidi, 2018).

#### **Influence Substitution Directors against Fraudulent Financial Reporting**

Hypothesis test results (H5) via Wald test show that elements of competence, namely replacement directors Not influential against Fraudulent Financial Reporting. These results are in agreement with research conducted by (Quraini, 2018), (Irfan, 2022), and (Farmashinta & Yudowati, 2019).

#### **The Influence of Frequent Number of CEO's Pictures on Fraudulent Financial Reporting**

Test result hypothesis (H6) shows that Arrogance elements are measured with a Frequent Number of CEO pictures with no influence against Fraudulent Financial Reporting. These results are consistent with research conducted by (Agusputri & Sofie, 2019) and (Farmashinta & Yudowati, 2019).

#### **Influence Financial targets, External pressure, Ineffective monitoring, Change of auditor, Replacement directors, and a Frequent number of CEO's pictures against fraudulent financial reporting.**

Testing This hypothesis (H7) shows that in a way simultaneous Financial targets, External pressure, Ineffective monitoring, Change of auditor, Replacement directors, and Frequent number of CEO pictures are influential to fraudulent financial reporting. This concludes that if all over variable the done by someone the bigger indication of the occurrence of fraudulent financial reporting. This is also visible from coefficient test results in a way regression (Cox & Snell R Square and Nagelkerke R Square) i.e. of 0.568. That figure can be interpreted together as the independent variable is 56.8% influencing fraudulent financial reporting, meanwhile, the rest amounting to 43.2% was influenced by other variables not used in this research.

### **5. Managerial Implications and Recommendations**

The results of this study indicate that if the independent variables are tested together against the dependent variable, it shows that there is an influence. So in this case, the researcher concludes that if a financial report fraud is not only influenced by one factor, but many factors can influence the occurrence of fraudulent financial reporting. So company management needs to carry out periodic monitoring and evaluation so that no gap for fraud can harm the company.

#### **Conclusion**

Research results show that No there is the influence of each variable independent to variable dependent If tested in a way partial, but when carried out tests Simultaneously, all variables independent namely financial targets, external pressure, ineffective monitoring, changing auditors, turnover directors, and frequent number CEO's picture can influence variable dependent fraudulent financial reporting. So you can conclude that Pentagon fraud can affect fraudulent financial reporting if all elements In the Pentagon, fraud is carried out on a massive scale somewhere company.



## References

- ACFE. (2020). *Survei Fraud Indonesia Tahun 2019*. www.acfe-indonesia.or.id
- Agusputri, H., & Sofie, S. (2019). Faktor-faktor yang Berpengaruh Terhadap Fraudulent Financial Reporting dengan Menggunakan Analisis Fraud Pentagon. *JURNAL INFORMASI, PERPAJAKAN, AKUNTANSI, DAN KEUANGAN PUBLIK*, 14(2), 105–124. <https://doi.org/10.25105/jipak.v14i2.5049>
- Agustina, R. D., & Pratomo, D. (2019). Pengaruh Fraud Pentagon dalam Mendeteksi Kecurangan Pelaporan Keuangan. *Jurnal Ilmiah Manajemen, Ekonomi, & Akuntansi (MEA)*, 3(1), 44–62.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)
- Annisya, M. L., & Asmaranti, Y. (2016). Pendeteksian Kecurangan Laporan Keuangan Menggunakan Fraud Diamond. *Jurnal Bisnis Dan Ekonomi (JBE)*, 1(23), 72–89.
- Aprilia. (2017). Analisis Pengaruh Fraud Pentagon Terhadap Kecurangan Laporan Keuangan Menggunakan Beneish Model Pada Perusahaan Yang Menerapkan Asean Corporate Governance Scorecard. *Jurnal Aset (Akuntansi Riset)*, 9(1), 101–132.
- Association of Certified Fraud Examiners. (2016). *Report To The Nations on Occupational Fraud and Abuse: Global Fraud Study 2016*.
- Bayagub, A., Wafirotin, K. Z., & Mustoffa, A. F. (2018). Analisis Elemen-elemen Fraud Pentagon Sebagai Determinan Fraudulent Financial Reporting (Studi Pada Perusahaan Property dan Real Estate yang Terdaftar di Bursa Efek Indonesia Periode 2014-2016). *ISOQUANT: Jurnal Ekonomi, Manajemen Dan Akuntansi*, 2(2), 1. <https://doi.org/10.24269/iso.v2i2.184>
- Damayani, F., Wahyudi, T., & Yuniatie, E. (2017). Pengaruh Fraud Pentagon Terhadap Kecurangan Laporan Keuangan Pada Perusahaan Infrastruktur yang Terdaftar di Bursa Efek Indonesia Tahun 2014 - 2016. *Akuntabilitas : Jurnal Penelitian Dan Pengembangan Akuntansi*, 11(2), 151–170.
- Farmashinta, P., & Yudowati, S. P. (2019). Pengaruh Fraud Pentagon terhadap Kecurangan Laporan Keuangan (Studi pada Sektor Industri Barang Konsumsi yang Terdaftar di BEI Periode 2015 - 2017). *Jurnal Akuntansi, Audit Dan Sistem Informasi Akuntansi*, 3(3), 349–363.
- Henny, Deliza, & Nugraha, N. D. A. (2015). Pendeteksian Laporan Keuangan Melalui Faktor Resiko, Tekanan dan Peluang (Berdasarkan Press Release OJK 2008-2012). *E-Journal Akuntansi Trisakti*, 2(1), 29–48.
- Howarth, C. (2011). The Fraud Pentagon: Considering the Five Elements of Fraud. *The CPA Journal*.
- Irfan, A. M. (2022). *Analisis Pengaruh Pentagon Fraud Terhadap Fraudulent Financial Reporting Pada Perusahaan Perbankan Yang Terdaftar di Bursa Efek Indonesia Periode 2017 - 2022*. UIN Syarif Hidayatullah Jakarta.
- Jensen, M., & Meckling, W. H. (1976). Theory Of The Firm: Managerial Behaviour, Agency Cost, and Ownership Structure. *Journal Of Financial Economics*, 305–360.
- Prischayani, A. P. (2020). Fraudulent Financial Reporting Berdasarkan Perspektif Fraud Pentagon Theory (Studi Empiris Pada Perusahaan Multifinance yang Terdaftar di BEI Periode 2016 - 2018). *Jurnal Ilmiah Mahasiswa FEB Universitas Brawijaya*, 2(8), 1–16.
- Quraini, F. (2018). Determinant Fraudulent Financial Reporting Using Fraud Pentagon Analysis. *Journal of Auditing, Finance and Accounting Forensic (JAFFA)*, 6(2), 105–114.
- Sari, M. P., & Sukirman. (2013). Model Deteksi Kecurangan Berbasis Fraud Triangle (Studi Kasus Pada Perusahaan Publik di Indonesia). *Jurnal Akuntansi & Auditing*, 9(2), 199–225.
- Septriyani, Y., & Handayani, D. (2018). Mendeteksi Kecurangan Laporan Keuangan dengan Analisis Fraud Pentagon. *Jurnal Akuntansi, Keuangan Dan Bisnis*, 11(1), 11–23.
- Ulfah, M., Nuraina, E., & Wijaya, A. L. (2017). Pengaruh Fraud Pentagon dalam Mendeteksi Fraudulent Financial Reporting (Studi Empiris Pada Perbankan di Indonesia yang Terdaftar di BEI). *The 9th Forum Ilmiah Pendidikan Akuntansi (FIPA)*, 5(1), 399–417.
- Warsidi, B. A. P. (74 C.E.). Determinant Financial Statement Fraud: Perspective Theory of Fraud Diamond. *Jurnal Ekonomi, Bisnis Dan Akuntansi (JEBA)*, 74(12), 38–42.
- Yusof, K. M. (2016). *Fraudulent Financial Reporting: An Application of Fraud Models to Malaysian Public Listed Companies*. University Hull.