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The Effect of the Fraud Pentagon in Detecting Fraudulent Financial Reporting

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A B S T R A C T

This study aims to examine the factors of fraudulent financial reporting in the banking sector for the 2015-2020 period. Several factors include external pressure, financial targets, change of directors, and frequent number of CEO's picture. Currently, many studies in the field of fraudulent financial reporting have been carried out in the manufacturing industry sector as well as in the mining sector, while the current focus of research is in the banking sector, which has significant differences in characteristics in aspects of leverage, return on assets, and CEO arrogance in financial institutions. This study uses a quantitative approach of to panel data regression using Stata software which connects twelve banks listed on the Indonesian stock exchange with a period of six years from 2015 to 2020. The result of this study indicate that external pressure has a negative effect on fraudulent financial reporting. In addition, financial targets and changes in directors have a positive effect on fraudulent financial reporting. While other result shows that the frequent number of CEO's picture has no effect on fraudulent financial reporting in the banking sector. The limitation of this study is that it has a small sample of banks with a relatively short period of observation time, thus so that the range of observational data is still limited and unable to be generalized to larger companies. In addition, this study uses a quantitative approach, and further studies are expected to extend the cross-sectional and corporate culture wisdom to increase the determination of banking fraudulent financial reporting.

A R T I C L E I N F O

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Introduction

Financial reports can function optimally if presented reliably, easily understood, comparable and relevant. This is to ensure that financial reporting is able to provide an overview of the accountability and efficiency of managers in managing the company's financial resources and assets[1][2]. Managers always want the performance of the company under their control to always look good by taking manipulative actions in financial reporting. This is detrimental to various parties such as investors, creditors, employees, auditors, and competitors [3][2][4] [5]

Financial reports do not always guarantee that the information has been presented correctly and in accordance with the condition of the company [6][7]. This is done to get a good public image, because they describe their entity to look good and it is not uncommon for them to prefer to commit fraud by manipulating the financial statements presented[8][9]

Although financial reports in Indonesia have been regulated in such a way as to increase transparency and accountability, there are still opportunities and opportunities to take manipulative actions called *fraudulent financial* reporting. [10][11]Based on agency theory, management is pressured to commit fraudulent financial reporting if the financial performance it produces is not as expected by the company owner, so management must commit fraud [12][13]

Fraud is an act of financial reporting fraud committed by a manager at the expense of *stakeholder* trust for certain interests [14]. Several previous studies have found various determinants of *fraudulent financial reporting*, such as *external* pressure [1][15][6][8][7][4][5],*financial* target [9][16]), change of directors[8][7][5] (and *frequent of number of CEO's* picture [17][6][7][4]This study tests the *fraud pentagon theory* which was previously assist the development of *fraud triangle theory* and *fraud diamond theory* in the banking context.

Various previous research results show that the determinants of *fraudulent financial reporting* experience inconsistencies in research results. Research by Agustina, et al. (2019) shows that *external pressure has a* significant negative effect on *fraudulent financial reporting*[1]. While Devy and Rukmana show that *external pressure has a* positive effect on *fraudulent financial reporting*[6][4]. Agency theory provides assertiveness for the external pressure felt by managers, so managers will try to produce financial performance that looks good. Based on the description above, the first hypothesis of this study is:

H_1 : *External pressure* affects *fraudulent financial reporting*

Financial target is a financial target that a company wants to achieve. Management is often required to manage the company optimally in order to achieve the desired targets. The pressure to achieve maximum financial targets to get bonuses for achieving financial targets can encourage fraud to meet these targets. Research by Nanda, et al. and Nisa, et al. state that *financial targets* affect financial statement fraud[9][16]. Based on the description above, the second hypothesis of this study is:

H_2 : *Financial targets* affect *fraudulent financial reporting*

Changing the board of directors is the transfer of authority from the old board of directors to the new board of directors with the aim of improving the performance of the previous management. The replacement of directors who are considered more competent is carried out to improve the performance of the previous directors. In addition, the change of directors intends to replace the previous board of directors [7][18]. So that the company can try to get rid of directors who are considered to know the fraud that the company has committed. Sihombing shows that *capability* proxied by changes in directors has an influence on *financial statement fraud*[19]. Husmawati, et al. and Zulfa & Bagayub prove that ability has a significant positive effect on financial statement fraud [8][5]. Meanwhile, according to research by Ulfah, et al. the variable change of directors has no effect on fraudulent financial reporting[20]. Based on the description above, the third hypothesis of this study is:

H_3 : Change of directors affects *fraudulent financial reporting*

One of the measurements of the fraud pentagon element is *arrogance* where this arrogance can be seen from the *frequent number of CEO's pictures* listed in the company*'s* annual report. (Yusof et al., 2015). A high level of arrogance allows fraud to occur, because the CEO considers that existing internal controls will not apply to him because he already has a status and position that he thinks is important in the company. In addition, the CEO will do whatever it takes to maintain his current position and position. Apriliana & Agustina's research found that the number of CEO photos can represent the level of arrogance as a fraud factor[17]. In line with Tessa & Harto, Rukmana , Devy, et al. found that the *frequent number of CEO's pictures* affects the detection of financial statement fraud[18][4][6]. Based on the description above, the fourth hypothesis of this study is:

H_4 : *Frequent number of CEO's picture* affects *fraudulent financial reporting*

Methods

This research uses the quantitative approach to test the relationship between variables. Data is obtained through each banking *website* listed on the Indonesia Stock Exchange for the 2015-2020 period. The data analysis used includes the estimation model selection test, determining the best model, hypothesis testing and classical assumption testing based on Stata *software*.

There are 12 banks and 6 consecutive financial reports in the research sample so that the data analysis uses a panel data approach [21]This research panel data regression test begins with testing to select the best *random effect* model through the *chow* test and *hausman test*. Furthermore, the data is carried out hypothesis testing with the criteria for the probability value (significance), besides that the coefficient of determination test is carried out to determine how much influence the relationship between research variables has. In addition, the classical assumption test is conducted to ensure that the resulting regression equation is consistent in estimation and unbiased [22]

This study uses the dependent variable *fraudulent financial reporting* to detect financial statement fraud as measured by the *fraud score model* or F-score [23]. While the independent variable in this study is the *external pressure* as measured by the leverage ratio [24]. Mahama, *financial targets* as measured by *return on* assets [24][25].change of directors who use dummy Puspitadewi & Sorminand *frequent number of CEO's* as measured by *frequent number of CEO's* picture [26][27]

Results and Discussion

To find the best model, the *chow test* and *Hausman test* were analyzed. The following are the results of the best model selection analysis:

Table 1. Chow test & Hausman test

Test summary	Prob.
Chow test *Cross-section F*	0,0098
Hausman test *Cross-section random*	0,5644

Source: own elaboration in Stata (2022)

Based on Table 1 above, it can be seen that the probability value of the *Chow test* is 0.0098, this value is lower than 5%, so the *fixed effect model is* better than the *common effect model*, while the probability value of the *Hausman test* is 0.564, this value is higher than 5%, so the *random effect model* is better than the *fixed effect model*. Thus further testing uses the *random effect model*.

Testing the hypothesis of this study is based on the probability value (5%). Based on the regression analysis shown in Table 2, it can be seen that external pressure has a negative effect on *fraudulent financial reporting* as indicated by a probability value of 0.000 <0.050. Furthermore, *financial targets* and change of directors each have a positive effect on fraudulent *financial reporting* as indicated by a probability value of 0.0118 and 0.0173 less than 5%.

While the *frequent number of CEO's* has no effect on *fraudulent financial reporting* with a probability value of 0.392 higher than 0.050. Other results show the R-square and constant values of 0.448 and 1.096 respectively, this means that the influence of the research independent variables on *fraudulent financial reporting is* 44.8% and the remaining 55.2% is influenced by other variables outside the research model. The equation model from table 2 that can be formed is as follows:

Fraudulent financial reporting = 1.096 - 1.137Ep + 10.037Ft + 0.151Pd + 0.017Fceo + *e*

Table 2. Construct and Coef.

Construct	Coef.	Sig.
Constant	1,096	
External pressure	-1,137	0,0000
Financial target	10,037	0,0118
Change of directors	0,151	0,0173
Frequent number of CEO's picture	0,017	0,3925
R-square	0,448	

Source: own elaboration in Stata (2022)

The random effect model also produces normal data distribution, this can be seen in table 3 which shows the probability value (Prob>chi^2) of 0.1549 which means that the redisual value is normally distributed and the regression model fulfills the assumption of normality.

Table 3. Data of normality test

Variable	Jarque Bera	Prob.
Standardized residual	84,79577	0,1549

Source: own elaboration in Stata (2022).

The results of this study indicate that *external pressure has a* negative effect on *fraudulent financial reporting for* banks for the 2015-2020 period. This study proves that high debt causes the *leverage* ratio to get higher because it is not accompanied by an increase in assets every year and has an impact on the pressure for external managers to commit *fraudulent financial reporting*. In banking, the need to obtain sources of financing from customers aims to keep banking conditions growing and can operate optimally. Tessa & Harto's research found that, while other research by Istiyanto & Yuyetta found that *external pressure has* no effect on *fraudulent financial reporting*[18][28].

Furthermore, the results also show that *financial targets have a* positive effect on *fraudulent financial reporting in* banking for the 2015-2020 period. This study proves that increasing banking *return on assets* can be achieved with adequate quality of human resources so that management does not consider financial targets as pressure, but rather motivation for increasing performance capacity and capability in achieving high performance productivity. There are several studies that support the research findings, including research conducted by Nisa, et al. who found that *financial targets* affect *fraudulent financial statements*[16]. In addition, a study conducted by Pratiwi & Nurbaiti support the results of this study which reveal that *financial targets* affect *fraudulent financial reporting*[29].

In addition, the results of other studies show that the change of directors has a positive effect on *fraudulent financial reporting in* banking for the 2015-2020 period. This research proves that changes in directors in banking are a factor that can determine the future direction of the company. The Board of

Directors has important duties and functions in improving the quality of performance in accordance with the objectives to be achieved effectively and efficiently.

The character of each individual in leading has a different style so that it is necessary to make the right decision in choosing directors according to the conditions and situations that occur, this is needed by the company so that changes in directors occur not because of *fraudulent financial* reporting [30]

Other results also show that the *frequent number of CEO's has* no effect on *fraudulent financial reporting of* banks for the 2015-2020 period. These results provide evidence that the *arrogance* relationship proxied by the *frequent number of CEO's picture*, namely the more frequency of appearance of the CEO*'s* photo, indicates the high arrogance it has. The higher the arrogance possessed by a CEO can lead to *fraudulent financial reporting* because his arrogance or superiority makes the CEO feel that the existing regulations will not ensnare him [31]

In the banking sector, CEO arrogance does not influence management in committing *fraudulent financial reporting*. Whether or not there is CEO arrogance, fraudulent *financial reporting* can still occur.

Conclusion

This study analyzes and examines the factors that influence *fraudulent financial reporting of* banks for the 2015-2020 period. The results show that during the 2015-2020 period, *external pressure has a* negative effect on *fraudulent financial reporting*, other research results show that *financial targets* and changes in directors have a positive effect on fraudulent *financial reporting*. Meanwhile, the *frequent number of CEO's* has no effect on *fraudulent financial reporting*. These findings have practical implications for banks, financial companies, and other business companies that want to develop effective strategies to improve fraudulent *financial reporting* in future periods.

This study has three limitations. First, the data was collected from a small sample of only 12 banks with a relatively short time period of six years. Thus, the range of observational data is still limited in interpreting the research results and may not be suitable to be generalized to larger number of companies. In addition, this study used the quantitative approach, whereas qualitative research in the context of board turnover and company CEO policies may be able to reveal more explanations for the relationship between the constructs used. Furthermore, enhanced studies with a longer *cross-sectional* approach and the wisdom of corporate culture are needed to increase the value of determination in banking *fraudulent financial reporting*.

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