

Analysis of Behavioral Factors that Cause Student Academic Fraud

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Abstract

This study aims to examine a number of behavioral factors from students committing academic fraud in university. The subject of this research is the factors that motivate students to commit academic fraud. The Fraud Pentagon Theory and Gone Theory are used. Behavioral factors include arrogance, pressure, opportunity, rationalization, competence, greed, need, and exposure. The population in this study was the undergraduate students in the Accounting Study Program in the Faculty of Economics and Business at Surakarta Muhammadiyah University who had taken courses in Accounting Information Systems and Auditing. This study uses the convenience sampling method as the sampling technique. There were 110 respondents involved. In this study, the hypothesis is subjected to the multiple linear regression analysis. The results of this study show that the factors related to student academic fraud are mainly arrogance and opportunity. Other behavioral factors namely pressure, rationalization, competence, greed, need, and exposure have no effect on student academic fraud.

Keywords: Fraud pentagon theory; Gone theory; Student academic fraud; Behavioral factor; Accounting students.



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1. Introduction

At present, the development of education and increasing academic demands for student competence, in work requirements, and on student accreditation forms, have resulted in some students showing positive and some others showing negative academic behavior.

Institutes of higher education, as the builders of positive character and personalities have formed noble character, and student intellectual, emotional, and high spiritual intelligence. But, not all students carry out the education process properly. Some of them take improper actions such as cheating to achieve higher test scores and to fulfill expectations as outstanding students.

The issue of this research is what factors cause accounting students to commit academic fraud. Academic fraud is a form of negative behavior that has a negative influence on students. Such bad behavior, for example, would be cheating. These actions are carried out by writing small notes, using mobile phones, copying results from friends, and so on. Academic fraud has resulted in unreliable evaluations of student performance which do not describe the true abilities of the students.

Most students assume that university studies are only a stepping stone to get a job. They also assume that those who graduate with mediocre grades will find it difficult to get a job. In general, students are only focused on their grades, not on knowledge. So that, in the process of obtaining outstanding grades, students take detrimental actions such as cheating, plagiarism, or getting somebody else to be in class on their behalf (Gustapraja, 2011 in [Saidina et al. \(2017\)](#)).

In Indonesia, many cases of academic fraud have been revealed. For example, the results of the survey of the Media R & D Group (2007) in [Murdiansyah \(2017\)](#) show that the majority of students, both secondary and university students, commit academic fraud in the form of cheating. The same was revealed in a survey conducted on April 19, 2007 in six major cities in Indonesia, namely Makassar, Surabaya, Yogyakarta, Bandung, Jakarta and Medan (Pudjiastuti, 2012 in [Murdiansyah \(2017\)](#)). In fact, mass cheating is a common occurrence of the annual National Examination (UN), and this cheating is supported by teachers so that their students can all pass the exam and thereby maintain the good name and prestige of the schools. This practice happens in elementary, junior and senior high school levels.

This study aims to examine several behavioral factors that cause a student to commit academic fraud. This research was conducted using accounting students at Surakarta Muhammadiyah University. This means that this research was more specific towards the behavior of accounting students in committing academic fraud.

2. Literature Studies and Hypothesis Development

2.1. Student Academic Fraud

According to the Association of Certified Fraud Examiners (ACFE, 2000 in [Tiffani and Marfuah \(2015\)](#), fraud is a misleading act committed by a person or body who knows that such an act may result in some harm to the individual or organization. The misbehaviors and inactions could also however occur in the education environment itself. The extant literature suggests that the incidence of academic misbehaviors among students was primarily driven by students' unethical behavior ([Granitz and Loewy, 2007](#); [Guo, 2011](#); [Murdock and Anderman, 2006](#); [Nahar, 2018](#)).

Student academic fraud is carried out by students intentionally using a variety of methods and originates from dishonest acts. Thus, there are differences in understanding in assessing and interpreting things. It can be concluded from the definitions above that student academic fraud is a dis-honest act carried out deliberately by students to achieve success ([Buckhoff and Peterson, 2004](#); [Eckstein, 2003](#)).

2.2. The Pentagon Fraud Theory

One of the theories used in this study to examine the factors causing student academic fraud is Crowe's Fraud Pentagon Theory. This theory was initially used in financial audits and was put forward by [Albrecht et al. \(2011\)](#); [Connolly et al. \(2006\)](#). The Fraud Pentagon Theory is an extension of the Fraud Triangle Theory and Fraud Diamond Theory. The Fraud Pentagon Theory dimension explains several reasons or factors why someone commits fraudulent acts ([Akomea-Frimpong et al., 2016](#); [Kassem and Higson, 2012](#); [Pedneault et al., 2012](#); [Vousinas, 2019](#)). The reasons or factors that cause someone to be dishonest are as follows:

2.2.1. Arrogance

According to [Albrecht et al. \(2011\)](#); [Connolly et al. \(2006\)](#), arrogance is the characteristic of superiority regarding the rights that people have and the feeling that internal controls and company policies do not apply to them.

2.2.2. Pressure

According to [Albrecht \(2012\)](#), pressure stems from someone feeling the need to commit fraudulent behavior. "The intended pressure may come from the closest people like parents, siblings or friends" ([Hartano, 2012](#)). ([Olejnik and Holschuh, 2007](#)) describe academic pressures as responses that arise owing to too many demands and tasks that must be done by students.

2.2.3. Opportunity

According to [Albrecht \(2012\)](#), opportunity is when someone feels that he or she has a combination of situations and conditions that allow him or her to commit academic fraud and not be detected. In this research opportunity arises, intentionally or unintentionally, in situations that compel someone to commit academic fraud.

2.2.4. Rationalization

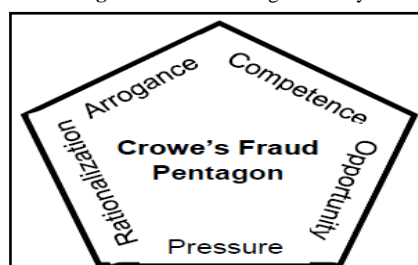
Rationalization is an internal conflict within the offender and is an attempt to justify the act of fraud he or she has committed ([Dorminey et al., 2012](#); [Girgenti and Hedley, 2011](#); [N'Guilla et al., 2018](#)). Rationalization is self-justification for wrong behavior ([Albrecht, 2012](#)). Students who exhibit academic fraudulent behavior constantly look for justification by saying that academic fraud is justified for a variety of reasons. A morally-acceptable attitude or rationalization needs to occur before fraudulent behavior is executed. In other words, rationalization allows the perpetrator to see illegal actions as acceptable actions ([Ruankaew, 2016](#)).

2.2.5. Competence

The Fraud Pentagon Theory, proposed by [Albrecht et al. \(2011\)](#); [Connolly et al. \(2006\)](#), states that competence can be interpreted as ability in the Diamond Fraud Theory. According to [Albrecht et al. \(2011\)](#); [Connolly et al. \(2006\)](#), competence or capability is the ability to ignore internal controls, develop concealment strategies, and control social situations for personal benefits.

[Wolfe and Dana \(2014\)](#), state that to improve fraud prevention and detection, it is important that elements of competence and capability are taken into account. In addition to dealing with pressure, opportunity and rationalization, an individual's capability must also be considered. The individuals' capabilities include personal traits and abilities, which play a major role in the academic fraud that might actually occur, even in the presence of the three other elements.

Figure-1. Fraud Pentagon Theory



2.3. The Gone Theory

Another theory used to examine the causes for academic fraud among students is the Gone Theory. [Ismatullah and Elan \(2016\)](#), states in the Fraud Auditing Handbook, issued by BPKP (2008), that there are four factors that compel a person to commit fraud, namely Greed, Opportunity, Need, and Exposure, better known as the GONE theory. This theory was first put forward by Jack Boulogue in the book *Fraud Auditing and Forensic Accounting: New Tools and Techniques* (1995).

According to Bologna in Lisa (2013) in [Zaini \(2015\)](#), the Gone Theory reveals four factors why fraud occurs:

1. Greed is related to the existence of behavior potentially possessed by every individual.
2. Opportunity is related to certain circumstances of organizations, institutions or societies, which open up opportunities for someone to commit fraud.
3. Need is related to the factors necessitated by individuals to support their normal lives.
4. Exposure is related to punishment or consequences faced by the perpetrators of fraud when they are caught.

If one of the four behavioral factors compelling fraud can be minimized, the rate of fraud will be lower. If the four behavioral factors causing fraud cannot be minimized, the rate of fraud will be higher.

2.4. The Development of Hypotheses

2.4.1. The Effects of Arrogance on Student Academic Fraud

Some students have a tendency to show their friends their academic status or position and do not want to lose their status or position so that they will be respected or valued by their friends. This arrogant motive can be a driving force for a student to conduct academic fraud. According to [Albrecht et al. \(2011\)](#); [Connolly et al. \(2006\)](#), ego can create arrogant behavior.

A student who possesses an arrogance characteristic will likely to perform academic fraudulent behavior. The strong arrogance trait and superiority possessed by students will make them feel that internal controls will not apply to them. Crow also claims (2012) that an individual or student will do anything to maintain the status or position he or she already holds.

Based on the description above, the hypothesis is as follows:

H₁: Arrogance causes student academic fraud.

2.4.2. The Effects of Pressure on Student Academic Fraud

According to [Olejnik and Holschuh \(2007\)](#), academic pressure occurs due to the high demands the students face and the number of assignments that they must do. Students normally cheat so that their studies will run smoothly and they can achieve a good Grade Point Average (GPA). The need for good grades is the most dominant pressure factor that students feel. Grades have a big impact on students and are a trigger for them to cheat. Grades are a symbol of success in their studies, so it is not uncommon that many students are more concerned about grades than about knowledge.

The pressure to get good grades does not only come from within the students who want to get higher grades than their peers, but there is also pressure from external parties, such as parents, scholarship providers, and work places, [Murdiansyah \(2017\)](#). The results of the study of [Murdiansyah \(2017\)](#) show that pressure leads to academic fraud.

Based on the description above, the hypothesis is as follows:

H₂: Pressure is one of the reasons for student academic fraud.

2.4.3. The Effects of Opportunity on Student Academic Fraud

Opportunities are chances that appear due to lack of supervision, making it easier for a student to commit academic fraud. According to [Murdiansyah \(2017\)](#), opportunity exists because of a weak system and the lack of control and of the application of strict sanctions. Cheating usually happens when the supervisor of the test fails to carry out his or her duties. In this case, the supervisor does not monitor the test properly or carefully, and he or she does not give a strict and direct action to students who cheat. The research conducted by [Murdiansyah \(2017\)](#) and [Indrawati \(2017\)](#) suggests that opportunity plays a part in student academic fraud.

Based on the description, the hypothesis of this study is as follows:

H₃: Opportunity is one factor to compel student academic fraud.

2.4.4. The Effects of Rationalization on Student Academic Fraud

Rationalization is a justification for a wrong behavior as if wrong behavior were acceptable ([Albrecht, 2012](#)). Students who conduct academic fraudulent behavior always look for justification by saying that the action that they do can be justified with sensible reasons. A morally-acceptable attitude or rationalization needs to occur before the execution of fraudulent behavior. In other words, rationalization allows the perpetrator to see illegal actions as acceptable ([Ruankaew, 2016](#)).

[Murdiansyah \(2017\)](#), reveals that there has been some evidence which shows that rationalization is done before academic fraud is carried out. One of the rationales given is that because other people has done it before, he or she will also be allowed to do it. The results of the study carried out by [Murdiansyah \(2017\)](#) show that rationalization is involved in student academic fraud.

Based on the description, the hypothesis is as follows:

H₄: Rationalization is one of the factors for student academic fraud.

2.4.5. The Effects of Competence on Student Academic Fraud

Individual capability plays a main role in academic fraud. Students who have the competence or ability to commit academic fraud tend to do it. Students who have competence tend to cheat more often than those who do not have the competence or the ability to carry out academic fraud (Wolfe and Dana, 2014). The results of the study from Murdiansyah (2017) and Artani and Wayan (2017) show that competence affects student academic fraud.

Based on the description, the research hypothesis is as follows:

H₅: Competence influences student academic fraud.

2.4.6. The Effects of Greed on Student Academic Fraud

According to Bologna in Zaini (2015), greed is one of the factors driving someone to cheat. Some people are likely to commit fraud because basically humans have a greedy nature and never feel satisfied with what they already have or with what they have achieved.

In Zaini (2015), students are still not satisfied with their honest achievement despite a GPA of 3. Furthermore, many students are not willing to share knowledge with their friends because they are afraid of being in competition. Lastly, they are not willing to distribute scholarship information to their friends so that the opportunity to get a scholarship will be greater because there are only a few who have the information. This mindset can encourage individuals to commit academic fraud. The results of the study by Zaini (2015), Ismatullah and Elan (2016), and Indrawati (2017) show that greed leads to academic fraud.

Based on the description, the research hypothesis is as follows:

H₆: Greed influences students to commit academic fraud.

2.4.7. The Effects of Need on Student Academic Fraud

Need is related to the factors needed by individuals to support a reasonable life. Bologna in Lisa (2013) in Zaini (2015) states that the need factor is a factor associated with behavior that is attached in every individual.

Kurniawan (2013) in Zaini (2015) states that everyone needs more than just their basic needs so it can be a trigger of fraud. People will do anything to meet their needs even if they have to commit fraud. These needs will encourage them to perform a good behavior or bad behavior. To fulfill his or her needs, each individual's behavior leads to a specific goal. The results of the study from Zaini (2015), Ismatullah and Elan (2016), and Indrawati (2017) show that need can influence someone to commit academic fraud.

Based on the description, the research hypothesis is as follows:

H₇: Need motivates students to commit academic fraud.

2.4.8. The Effects of Exposure on Student Academic Fraud

Exposure is related to penalties or consequences faced by fraud perpetrators when the perpetrators are caught cheating. According to Bologna in Lisa (2013) in Zaini (2015), exposure is a factor associated with organizations as victims of fraud. Exposure of fraud does not guarantee the non-recurrence of the fraud either by the same perpetrator or by other actors. Therefore, each perpetrator of fraud should be penalized if his or her actions are revealed.

Zaini (2015), shows that when there is no exposure made by institutions or universities to students, there is more of a tendency for students to commit academic fraud. This happens because students who are caught committing academic fraud do not get sanctions in accordance with applicable rules. As a result, other students are not worried about being sanctioned if they are caught committing academic fraud. The results of the study by Zaini (2015) and Indrawati (2017) show that exposure has an effect on academic fraud.

Based on the description, the research hypothesis is as follows:

H₈: Exposure is related to student academic fraud.

3. Research Methods

3.1. Population, Samples, and Sampling Methods

The population in this study consisted of undergraduate students of the Accounting Study Program in the Faculty of Economics and Business at Surakarta Muhammadiyah University who had taken Accounting and Auditing Information Systems courses. In this study, the convenience sampling method was applied. The data were collected through an electronic survey via Google Form questionnaire. Questionnaires were distributed via Google Form to 110 respondents, and 110 questionnaires were obtained and processed. This method is more convenient in relevant to the traditional Paper-and-Pencil methods (Fernandez *et al.*, 2018; Zainol *et al.*, 2017). Moreover, it saves time and cost as compared to the use of paper, stamps and envelopes (Fernandez *et al.*, 2017). The multiple linear regression analysis was used as a testing tool in this study to analyze how much influence that the independent variables have on the dependent variables.

3.2. Measurement of Variables

Table-1 showed the measurement of variables and the sources used for this study.

Table-1. Measurement of Variables

Variables	Number of Items	Sources
Student Academic Fraud	5	Zaini (2015)
Arrogance	5	Crowe (2011)
Pressure	5	Albrecht <i>et al.</i> (2011); Connolly <i>et al.</i> (2006)
Opportunity	5	Albrecht <i>et al.</i> (2011); Connolly <i>et al.</i> (2006)
Rationalization	5	Albrecht <i>et al.</i> (2011); Connolly <i>et al.</i> (2006)
Competency	6	Crowe (2011)
Greed	5	Zaini (2015)
Need	5	Zaini (2015)
Exposure	5	Zaini (2015)

3.3. The Data Analysis Method

The data analysis method used in this study is a multiple linear regression analysis test. The hypothesis is tested after the multiple regression model is freed from classical assumptions so that the test results can be interpreted correctly. The forms of multiple linear regression equations used in this study are as follows:

$$\text{SAF} = \alpha + \beta_1 \text{ ARG} + \beta_2 \text{ PR} + \beta_3 \text{ OP} + \beta_4 \text{ RAS} + \beta_5 \text{ CPT} + \beta_6 \text{ GR} + \beta_7 \text{ ND} + \beta_8 \text{ EX} + \square$$

Notes:

- SAF : Student Academic Fraud
 α : Constants
 β_1 - β_8 : Coefficient of each variable
 ARG : Arrogance
 PR : Pressure
 OP : Opportunity
 RAT : Rationalization
 CPT : Competence
 ND : Need
 EX : Exposure
 \square : Error

4. Results

The results of the multiple linear regression test in this study are as follows:

Table-2. Multiple Linear Regression Test Results

Variables	Regression Coefficient	t-count	Sig.	Conclusion
Constant	15.131	7.224	0.000	
Arrogance	-0.255	-2.390	0.019	H1 accepted
Pressure	0.107	0.735	0.464	H2 rejected
Opportunity	0.376	2.743	0.007	H3 accepted
Rationalization	-0.087	-0.576	0.566	H4 rejected
Competency	-0.081	-0.597	0.552	H5 rejected
Greed	-0.004	-0.032	0.974	H6 rejected
Need	0.119	0.829	0.409	H7 rejected
Exposure	0.107	0.853	0.395	H8 rejected

Sources: SPSS Output, 2018

Based on the table above, the regression equation model is as follows:

$$\text{SAF} = 15.131 - 0.255 \text{ ARG} + 0.107 \text{ PR} + 0.376 \text{ OP} - 0.087 \text{ RAT} - 0.081 \text{ CPT} - 0.004 \text{ GR} + 0.119 \text{ ND} + 0.107 \text{ EX} + \square$$

The interpretations of each variable coefficient are as follows:

- 1) The constant value of 15.131 indicates the student academic fraud value. It means that if the independent variables, namely arrogance, pressure, opportunity, rationalization, competence, greed, need, and exposure are equal to zero or are assumed to be absent, the value of student academic fraud is 15.131.
- 2) The regression coefficient of the arrogance variable is -0.255. The negative sign indicates that if the arrogance value increases, student academic fraud will decrease. If the arrogance value decreases, student academic fraud will increase.

- 3) The regression coefficient of the pressure variable is 0.107. The positive sign indicates that if the pressure value increases, student academic fraud will increase. If the value of the pressure decreases, student academic fraud will decrease.
- 4) The regression coefficient of the opportunity variable is 0.376. The positive sign indicates that if the opportunity value increases, student academic fraud will increase. If the value of opportunity decreases, student academic fraud will decrease.
- 5) The regression coefficient of the rationalization variable is -0.087. The negative sign indicates that if the value of rationalization increases, student academic fraud will decrease. If the value of rationalization decreases, student academic fraud will increase.
- 6) The regression coefficient of the competency variable is -0.081. The negative sign indicates that if the value of competency increases, student academic fraud will decrease. If the value of competency decreases, student academic fraud will increase.
- 7) The regression coefficient of the greed variable is -0.004. The negative sign indicates that if the value of greed increases, student academic fraud will decrease. If the value of greed decreases, student academic fraud will increase.
- 8) The regression coefficient of the variable need is 0.119. The positive sign indicates that if the value of need increases, student academic fraud will increase. If the value of need decreases, student academic fraud will decrease.
- 9) The regression coefficient of the exposure variable is 0.107. The positive sign indicates that if the exposure value increases, student academic fraud will increase. If the exposure value decreases, student academic fraud will decrease.

5. Discussion

5.1. The Effects of Arrogance on Student Academic Fraud

The results of this study suggest that arrogance has an effect on student academic fraud. This is indicated by the results of the t-test in the arrogance variable which is equal to -2.390 with a significance level of $0.019 < 0.05$ which means that H_1 is accepted. This shows that arrogance influences student academic fraud.

These results point out that the respondents in this study could control their ego so they did not encourage themselves to carry out academic fraud. Moreover, students who became respondents did not have a characteristic which could trigger their friends to do academic fraud. They did not care about the bullying attitudes of their friends towards the grades obtained. They were also proud of the grades that they had achieved which were the results of their work. This attitude will reduce the tendency of student academic fraud to happen.

5.2. The Effects of Pressure on Student Academic Fraud

The results of this study indicate that pressure does not affect student academic fraud. This is suggested by the results of the t-test in the pressure variable which is 0.735 with a significance level of $0.464 > 0.05$ which means that H_2 is rejected. This shows that pressure does not have an effect on student academic fraud.

The rejection of this hypothesis is allegedly because the respondents did not have strong demands or pressure which forced them to commit academic fraud. This can also be due to the low level of competition with friends in achieving good grades. The non-influential existence of pressure on student academic fraud can be seen from the number of respondents who had the last GPA of above 3.01 which was as many as 94 respondents or 85.46% and the number of respondents who had one hour or more of study time which was as many as 73 respondents or 66.36%. It can be observed that ninety-seven respondents or eighty-eight point eighteen percent did not have a job. In other words, they only focused on studying; therefore, it can be concluded that pressure does not influence student academic fraud.

5.3. The Effects of Opportunity on Student Academic Fraud

The results of this study indicate that opportunity influences student academic fraud. This is suggested by the results of the t-test in the opportunity variable which is equal to 2.743 with a significance level of $0.007 < 0.05$ which means that H_3 is accepted. This shows that opportunity plays a role in student academic fraud.

The results of this study suggest that opportunity is one of the causes for student academic fraud to happen. This is due to several factors, including exam supervisors who are neglectful, the fact that students can choose their own seats during the exam, the situation where students have the opportunity to cooperate with friends, the lack of assertiveness of supervisors in giving sanctions or punishment, and exam supervisors who are not the lecturers of the subjects being tested. This is consistent with the opinion given by [Albrecht \(2012\)](#). He states that the bigger the opportunity is, the higher the chance is for someone to do something.

5.4. The Effects of Rationalization on Student Academic Fraud

The results of this study suggest that rationalization does not affect student academic fraud. This is indicated by the results of the t-test on the rationalization variable which is equal to -0.576 with a significance level of $0.566 > 0.05$ which means that H_4 is rejected. This shows that rationalization has no influence on student academic fraud.

The results of this study point out that students who were the respondents in this study already had a high level of awareness. They understood that committing academic fraud is wrong, so they did not do it.

5.5. The Effects of Competence on Student Academic Fraud

The results of this study suggest that competence is not a factor that affects student academic fraud. This is indicated by the results of the t-test in the competency variable which is equal to -0.597 with a significance level of $0.552 > 0.05$ which means that H_5 is rejected. This shows that competence is not related to student academic fraud.

It can be seen that students who were the respondents in this study did not have the competence or strategy to carry out academic fraud. According to Wolfe and Dana (2014), fraud will not occur if the person does not have the ability to do so.

5.6. The Effects of Greed on Student Academic Fraud

The results of this study suggest that greed has no effect on student academic fraud. This is indicated by the results of the t-test on the greed variable which is equal to -0.032 with a significance level of $0.974 > 0.05$ which means that H_6 is rejected. This shows that greed does not trigger a student to commit academic fraud.

It can be said that students who were the respondents in this study did not consider grades or GPA the most important factor to assess their abilities and capacities. The students were more likely to choose to learn so that they would understand every subject taken and avoid academic fraud.

5.7. The Effects of Need on Student Academic Fraud

The results of this study suggest that need does not have an impact on student academic fraud. This is indicated by the results of the t-test in the need variable which is equal to 0.829 with a significance level of $0.409 > 0.05$ which means that H_7 is rejected. This shows that need does not affect student academic fraud.

The rejection of this hypothesis was due to the possibility that in this study the respondents were predominantly women (87 respondents or 79.09%). Cizek and Hendrick (2004) pointed out that male students have more need to commit academic fraud because they are generally not as capable of studying and have less time to study than female students. Moreover, male students tend to be lazier than their female counterparts. This result can also be caused by the high number of respondents who achieved the last GPA of above 3.01, 94 respondents or 85.46% (table IV.7) and the high number of respondents who did not have to work while studying, (97 respondents or 88.18%). So, it can be concluded that need is not a factor that influences student academic fraud.

5.8. The Effects of Exposure on Academic Fraud Actions

The results of this study suggest that exposure has no impact on student academic fraud. This is indicated by the results of the t-test on the exposure variable which is equal to 0.853 with a significance level of $0.395 > 0.05$ which means that H_8 is rejected. This shows that exposure does not encourage students to do academic fraud.

The results of this study reveal that the sanctions made by the university towards student academic fraud are still considered very mild, therefore, the sanctions cannot have a deterrent effect on students involved in academic fraud.

6. Conclusion

Based on the results of data analysis and discussions of the above research, it can be concluded that factors that have an impact on student academic fraud are arrogance and opportunity, and other factors (pressure, rationalization, competence, greed, need, and exposure) are not the causes of student academic fraud.

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