

# Determinants of Academic Fraud Behavior: The Perspective of the Pentagon Fraud Theory

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**Abstract.** This study aims to link Crowe's pentagon fraud theory to investigate student academic fraud behaviour during the pandemic. This study used a positivist perspective with a comparative causal approach to empirically prove academic fraud behaviour. The population of this research is studied majoring in accounting at Muhammadiyah University of Semarang who are actively studying for one academic year, 2021/2022. Data were collected using a questionnaire survey using google-form media. Data analysis used Multivariate Analysis-Structural Equation Model - Partial Least Square (SEM - PLS). The results showed that student academic cheating during the pandemic was relatively high. Plagiarism, cheating and non-compliance during lectures are the most frequently done by students compared to other indicators. This study found that Crowe's pentagon fraud concept and theory, namely pressure, opportunity, rationalization, competence, and arrogance, was able to reveal the primary reasons why students majoring in accounting at the University of Muhammadiyah Semarang commit academic fraud.

Keywords: Academic fraud · pentagon fraud theory · multivariat analysis

### **1** Introduction

The Covid-19 pandemic has hit Indonesia recently, which has significant implications, especially in education. The pandemic caused various restrictions, especially learning, which was previously carried out offline instead of online. This was done to control the spread of the virus. The government's response was to issue a Minister of Education and Culture Circular Number: 36962/MPK.A/HK/2020 regarding online learning and working from home. Online learning is using the internet network with various media as learning tools. Various learning media are developed when expected to maintain the quality of learning even though it is not done face to face [1]. The most used media are zoom, google classroom, teacher's room, genius, Edmodo, moodle, seamless LMS students and others [2].

Online learning has various challenges, especially internet connection because not all areas have a good internet connection. In addition, online learning causes the knowledge transfer process slower because it is more difficult for students to understand the material presented by lecturers [3]. Online learning also requires lecturers to transform using technology, especially in the learning process, and few lecturers have difficulty adapting to the system [2]. A study by [4] reports another limitation of the online learning system: the weak supervision during lectures because lecturers cannot directly control student activities. Several studies also report that online learning causes graduates to have lower professional, moral and ethical standards because lecturers cannot comprehensively transfer related soft skills [5]. This directly impacts students who think instantly by prioritizing results in the form of a high GPA. Still, competently they do not meet the competency standards of the course objectives they have taken. So that it can be identified that students are committing fraud, for example, cheating, using jockeys and copy paste from the internet, this is called academic fraud. Studies [6] report that academic fraud in take-home tests is plagiarism copy paste, collusion, and replication.

The increased risk of academic fraud during online lectures is because lecturers cannot monitor student behaviour, so students can use various ways to commit academic fraud. The study [7] reported that the level of student cheating increased when the assessment was conducted online compared to offline. Academic fraud behaviour arises from factors that come from internal students, for example, laziness, lack of confidence in their abilities, and fear of failure. Then the factors that come from external are the persuasion of friends, the difficulty level of the exam, unfairness and having adequate opportunities and facilities to commit academic fraud. The phenomenon of academic fraud is a phenomenon that is often encountered in the world of education. Still, in recent years it has increased along with online learning, which is carried out at all levels of education.

The phenomenon of academic fraud can be detected using fraud theory commonly used by academics and practitioners in the financial sector. Fraud theory can be used to detect the behavioural determinants of academic fraud committed by students. Theories that can be used are the fraud triangle, fraud diamond and fraud pentagon concept. The fraud triangle was developed by European criminologist Cressey in 1953, which revealed that someone commits fraud because there is opportunity, pressure and justification. Then the theory of fraud developed into a fraud diamond created by Wolfe and Hermanson in 2004, explaining that fraud behaviour is caused by opportunity, capability, rationalization, and incentive. The difference between fraud diamond and the previous theory is that fraud perpetrators must have the ability to recognize opportunities to commit fraud. In 2011 the theory of fraud developed again with the pentagon fraud theory, namely analyzing fraud behaviour by examining the arrogance of a person. The theory of fraud continues to develop along with the times and changes in human behaviour due to the use of information technology.

The Pentagon fraud theory emphasizes the arrogant attitude of students. Arrogant behaviour is an attitude that shows superiority and lack of awareness caused by greed and the thought that supervision by lecturers is not optimal. They believe that lecturers will not reach all students. Studies conducted by [8, 9] report that student arrogance can be seen from several characteristics; (1) students feel that they are already at the higher education level, so they think theory can be learned and lectures should be closer to practice in the world of work, (2) can trick lecturers in various ways, (3) have a greedy attitude, (4) prestige with the results obtained if done honestly. The study [10, 11] reported on a study conducted by COSO explaining that a person commits acts of fraud due to the weakness of the internal control system of an institution in general. In

addition, studies [12] report that 70 per cent of students commit acts of fraud because of pressure and arrogance and greed.

Many studies related to fraud have been carried out by previous researchers, especially in the context of fraudulent financial statements with variables of pressure [13, 14], the opportunity [15, 16], rationalization [17, 18], capability [13, 14, 19] and arrogance [4, 20, 21]. However, very few fraud studies link academic fraud, so this research has a role in filling the void in fraud research conducted by academics. This research has broad implications in education, especially in providing policy recommendations to the Ministry of Education, Culture, Research and Technology using the pentagon fraud theory instrument to detect fraudulent behaviour committed by students. This study uses a psychological approach from the research object, namely, using a tool in the form of a questionnaire. Then, our research population is students from various generations, so we can get an overview of fraud committed by students from multiple generations.

Academic fraud detection uses the pentagon fraud theory with components of pressure, opportunity, rationalization, capability and arrogance that affect fraud behaviour committed by students. This study aims to find empirical evidence of academic fraud in higher education. In general, the research consists of five parts, and the following sections are the literature review, research methodology, results and discussion, and conclusions.

### 2 Literature Review

#### 2.1 Academic Fraud

Academic cheating involves a deliberate attempt to commit fraud. Academic cheating can be defined as plagiarism; fabrication, or falsification of evidence, data, or results; coercion of relevant evidence or data; diversion of erroneous sources; idea theft; or intentional deviation from the research work or data of others. Studies [22] report that academic cheating appears as an interaction of various factors, both internal (inside the perpetrator) and external (originating from the environment). Studies [12] mention many factors related to academic cheating. Internal factors include, among others, academic achievement index, work ethic, ability or competence of academic motivation, attitude, level of education, learning techniques, and morality. In addition, external factors include supervision by lecturers, application of regulations, bureaucrats' responses to fraud, student behaviour and the country of origin of the fraud perpetrators.

Each of the factors mentioned above is a factor that may be related to one another. For example, self-esteem may be related to academic competence and academic competence is also associated with learning techniques. The study [22, 23] reports several things that encourage academic cheating, including the person concerned not knowing that the act should not be committed. The person concerned knows this should not be done but believes that the person can do it without being found out. The person concerned knows that it should not be done and is not sure that the act will not be discovered. Still, the individual sees no other possibility to achieve his main goal (pass or get a credit score for a promotion), and the person concerned does not believe that the threat of sanctions will be carried out. The concerned person does not feel ashamed if his actions are known to others.

A study conducted by Colby in 2006 at Arizona State University reported that academic fraud in the university environment was classified into (1) Plagiarism, (2) Falsification of data, for example, making scientific data which is fictitious data, (3) Doubling of assignments, namely submitting two papers the same thing in two different classes without the lecturer's permission, (4) Cheating during exams, (5) Wrong cooperation. The study [2, 6] found four types of academic fraud that students, namely often committed (1) cheating by using invalid material on exams, (2) using false information, references or data, (3) plagiarism, (4) helping other students to cheat such as letting other students copy their assignments, giving a collection of questions that have been tested, remembering exam questions and then leaking them.

### 2.2 Negative Impact Academic Fraud

Academic fraud has a significant impact on the nation's future, especially in reducing the productivity of education in Indonesia or even being very low, and the learning process in educational institutions fails to educate quality young people who can compete internationally. The education system produces dishonest people who, in the professional world, become police officers, teachers, doctors, prosecutors, people in business, judges, and other professionals who can commit even more sophisticated acts of dishonesty. Emerging in students' behaviour or character that is not confident, disciplined, responsible, creative, accomplished, does not want to read textbooks. Still, students are more diligent in making small notes for cheating material. The rise of a culture of cheating indicates that a culture of discipline has been replaced in educational institutions whose impact will not only undermine the integrity of education itself but can lead to more serious behaviour such as criminal acts [2]. Studies conducted [11, 24] report that academic fraud worsens the future of a nation.

### 2.3 Pentagon Fraud Theory

The problem of fraud in the corporate environment will continue to increase along with the development of the business world. Hence, academics and researchers continue to develop concepts and theories to minimize fraud. In 1953 Cressey developed a concept fraud is committed by someone because of motivation, opportunity and rationalization. This theory is developed and used by corporations in detecting fraudulent behaviour by management. Then in 2004, the approach to fraud pioneered by Wolfe and Hermanson developed again by adding an incentive to detect fraud. Finally, Crowe Horwath, in 2011, created the pentagon fraud theory by adding an element of arrogance. Arrogance describes student greed and arrogance, so it triggers academic fraud.

### 2.4 Competency

Competency is defined as personal traits and abilities that play a significant role in the fraud. According to Wolfe and Hermanson (2004), the essential elements of ability are (1) positioning, which is the condition of a person who is in an autocratic position or has influence in his environment so that he takes advantage of his position. (2) intelligence

and creativity, perpetrators of fraud have sufficient understanding and exploit internal control weaknesses. (3) confidence, where a person has a high ego and belief that he will not be detected if he commits fraud. (4) a person may intimidate others to hide his fraudulent behaviour. (5) Deceit, fraud perpetrators are very skilled at doing it, where one lie will be covered up with another. (6) Stress, the perpetrator must be able to control his behaviour because someone who commits fraud will think of covering up his lies. Studies [25] someone has pressure, opportunities without ability, then the possibility of fraud will be slight because the person who commits fraud is balanced with ability. The higher the capacity a person has, the higher the tendency for someone to commit academic fraud.

#### 2.5 Opportunity

The following individual factor is opportunity. Study Albrecht [26] state that perceived opportunity is a situation that allows a person to commit fraud which is deemed safe by behaviour to commit fraud. According to [22], an opportunity is a situation that opens up opportunities to allow fraud to occur. Opportunity is an essential part of every fraudulent behaviour. If a fraudster does not have the opportunity to do so, fraud becomes impossible to commit, so the higher the opportunity available, the more likely fraudulent behaviour will occur. Academic cheating causes a lack of controls to prevent and detect violations and failures in disciplining perpetrators of academic fraud, as well as a lack of inspection. If the lecturer or exam supervisor never checks the course of the exam or the execution of student assignments, students are free to choose to be honest or commit fraud.

#### 2.6 Pressure

Pressure can be interpreted as intense pressure on a person both from within himself and from outside, such as the closest person to achieve a goal because of the many demands and assignments that students have to do. According to [26], it can be interpreted that the pressure felt is an encouragement or motivation or a goal to be achieved but is limited by the inability to complete it so that it can result in someone committing fraud. According to [24], the intended pressure can come from the closest people, such as parents, siblings or friends. Meanwhile, according to [20], pressure is when a person must commit fraudulent behaviour. Study [27] describes academic pressure as a response that arises because there are too many demands and assignments that students have to do. Academic pressure is a strong urge that is contained in a student both from within himself and from the environment to achieve specific goals caused by the many demands or tasks that must be done. The higher the pressure someone faces, the greater the possibility of academic fraud [28].

#### 2.7 Rationalization

Rationalization, namely the internal conflict within the perpetrator, as an effort to justify the act of fraud he committed. Rationalization is an individual's mechanism that allows individuals to justify unethical behaviour. Rationalization is also a process of explaining one's behaviour by presenting real reasons for cheating or justification rationalizations commonly used by students. Study [29] argued that rationalization explains one's behaviour by giving reasonable or socially acceptable reasons to replace the real ones. Meanwhile, according to [6], rationalization causes fraud perpetrators to seek justification for their actions. Cheating occurs because students feel that no one else is harmed. Students think academic fraud is common and is often done by many people. Students feel academic fraud is good, such as maintaining academic grades and maintaining self and environmental reputation. The higher the rationalization, the higher the possibility of someone committing academic fraud.

### 2.8 Arrogance

Arrogance or lack of conscience is an attitude of superiority and greed on the part of someone who believes that internal control does not apply to him. Arrogance is shown by someone who feels himself more than others. Arrogance can appear when a person feels superior in himself or can commit fraud without any control that can frustrate his actions so that the perpetrator will commit fraud without any fear of sanctions awaiting him. Arrogance describes the attitude of someone who is arrogant and arrogant and views others as worthless. Sometimes, a person can become arrogant because of specific experiences he has lived, but other times there is no psychological reason or cause that can explain it. A person becomes arrogant because he has made it this far and has won challenging achievements for others. Doing something extraordinary for which almost nothing else can be accomplished stimulates our sense of self-worth, sometimes to the point of seeing other people as less important.

# 3 Research Method

This study uses a positivist paradigm to test the hypothesis. The data used in this study are primary data obtained directly through surveys with instruments in the form of questionnaires. The population of this study were students of the Muhammadiyah University of Semarang's Accounting Study Program. The sampling technique used is simple random sampling. Questionnaires were distributed via google Forms which were sent using e-mail and WhatsApp to respondents. Questionnaires were sent to 400 respondents, divided into four batches: students in the semester I, semester III, semester V and semester VII. Research instruments related to the variables are measured with a Likert scale of 1 to 5. Inferential data analysis uses the Structural Equation Modeling (SEM) approach with the help of WarpPLS 8.0.

This study uses endogenous and exogenous constructs. Competency, opportunity, pressure, rationalization, and arrogance are the endogenous constructs used. The exogenous construct is academic fraud behaviour. Data analysis was carried out in two-three stages, namely the outer model, the goodness of fit and the inner model. The outer model is used to assess the validity and reliability of the research instruments used. Validity is measured by discriminant, and convergent reliability is measured by composite reliability and Cronbach's alpha. The goodness of fit is used to see the feasibility of the research

model and whether the model is fit or not. The inner model is used to test the research hypothesis.

The equation for testing the hypothesis of this study:

 $\begin{array}{l} \text{AFB}_{\text{smt},1}: \alpha + \beta_1 \text{Com} + \beta_2 \text{Opp} + \beta_3 \text{Press} + \beta_4 \text{Rat} + \beta_5 \text{Arr} + \varepsilon.\\ \text{AFB}_{\text{smt},3}: \alpha + \beta_1 \text{Com} + \beta_2 \text{Opp} + \beta_3 \text{Press} + \beta_4 \text{Rat} + \beta_5 \text{Arr} + \varepsilon.\\ \text{AFB}_{\text{smt},5}: \alpha + \beta_1 \text{Com} + \beta_2 \text{Opp} + \beta_3 \text{Press} + \beta_4 \text{Rat} + \beta_5 \text{Arr} + \varepsilon.\\ \text{AFB}_{\text{smt},7}: \alpha + \beta_1 \text{Com} + \beta_2 \text{Opp} + \beta_3 \text{Press} + \beta_4 \text{Rat} + \beta_5 \text{Arr} + \varepsilon. \end{array}$ 

Description: AFB; is a variable that will be proven empirically, namely related to fraudulent behaviour committed by students, Com; is the potential for fraud from the competence of the perpetrator, Opp; are opportunities and opportunities owned by actors, Press; is the pressure received, thus committing fraud, Rat; is the rationalization of fraud committed by someone, Arr; describes the arrogance of students who causes fraud,  $\alpha$ : is the constant value in the research model,  $\beta$ : is the regression coefficient,  $\epsilon$ : is the error value in the research model, smt; is the student semester that denotes the first year of study at the university.

# 4 Research Result

Questionnaires were sent to 450 students. Questionnaires were sent more than the target so that the amount of data was following the planned target. The data tested in this study amounted to 400 respondents spread over students of the accounting study program in semesters I, III, V and VII. Based on the questionnaires collected, the research respondents were women-dominated compared to men. Eighty-four per cent of this study was dominated by women and 14 per cent by male respondents.

### 4.1 Outer Model

This section presents data quality testing by testing the validity and reliability. The validity test assesses the ability of research instruments to measure variables. The loading factor value determines validity for each indicator greater than 0.60 and the AVE value for each variable greater than 0.5. If the loading factor and AVE are below the predetermined standard value, it is concluded that the indicator is invalid, therefore it must be removed from testing the outer model because if it is still used, it will become a "disturbing" indicator which will cause the results of the inner model test to be biased so that the results are not can be used for generalizations.

### 4.2 Validity Test

### 4.3 Reliability Test

Based on the results of the validity test presented in Table 1, it is reported that all indicators used in this study have fulfilled the validity test, which was tested with discriminant validity and convergent validity. Valid indicators show that all indicators have a loading factor value that exceeds the minimum limit of 0.06, an AVE value above 0.5 and an AVE square value above the correlation value between variables. This value must be above 0.7

Variable	Indicators	Loading Factor	AVE
Academic Fraud Behavior	I did not cite the sources in my paper assignment.	0.642	0.663
	I copied my friend's paper assignment.	0.741	
	I prepared a cheat sheet for the exam.	0.725	
	I used a cheat sheet during the exam.	0.876	
	I copied my friend's answer during the exam.	0.647	
	I did collaborative cheating during the exam.	0.862	
Competency	I can control myself when I commit academic fraud.	0.918	0.573
	I felt neither afraid nor worried when I committed fraud.	0.783	
	I prepared a strategy so that I could cheat on a test.	0.744	
	I could argue that I am considered to be committing academic fraud.	0.817	
	I asked a friend to help me cheat.	0.726	
	I can handle my surroundings to assist me in cheating.	0.735	
Opportunity	Lecturers should have been more careful in checking student assignments. Therefore, I plagiarism.	0.741	0.752
	Cheating is okay, had it gone undetected.	0.719	
	The exam invigilators let students cheat.	0.862	
	I'm not scared to cheat on exams.	0.681	
	Lecturers do not check student paper assignments with plagiarism software.	0.839	
	The exam invigilator is engrossed in activities other than supervising.	0.649	

 Table 1. The results of the reflective construct validity test

(continued)

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Variable	Indicators	Loading Factor	AVE
Pressure	I have to pass the exam even if I plagiarise my paper assignment.	0.641	0.777
	I have to pass the exam even if I cheated.	0.873	
	I cheated on the exam to get top marks.	0.866	
	I did collaborative cheating to pass the exams with high grades.	0.816	
	I plagiarism in my paper assignment due to lack of time.	0.741	
	I didn't participate in group assignments since I couldn't manage the time to study	0.711	
Rationalization	I didn't hurt anyone when I cheated on the exam.	0.631	0.671
	No one but me deserved to be punished if I got caught cheating.	0.834	
	It is usual for my friends and me to commit academic fraud.	0.738	
	I was mockingly called a saint for refusing to share my answer during the exam.	0.971	
	I committed academic fraud to get high grades and was considered innovative.	0.927	
	I committed academic fraud to get high grades and to make my parents happy	0.727	
Arrogance	I committed academic fraud on my own.	0.903	0.622
	I became more confident after cheating.	0.602	
	Cheating on exams is cool!	0.789	
	Cheating on exams is something I am proud of.	0.663	

 Table 1. (continued)

so that it can be concluded that the research instrument has a high consistency of answers between respondents or does not have a double meaning and the same interpretation between respondents. Based on a study conducted by [Hair...2021...] explained that the

Variable	Composite Reliability	Cronbach Alpha
Competency	0.732	0.861
Opportunity	0.761	0.775
Pressure	0.989	0.825
Rationalization	0.731	0.844
Arrogance	0.711	0.848
Academic fraud behavior	0.819	0.738

Table 2. Reflective construct reliability test results

research instrument was categorized as "good" and had high accuracy so that it could measure research variables. Table 2 shows the reliability test results as measured by Cronbach's alpha and composite reliability. The test results show that all variables have met the required reliability.

### 4.4 Inner Model

Assessment of the inner model testing the predictability of the research model and testing the direct and indirect hypotheses. The results of the direct effect test are shown in table 3. In general, the pentagon fraud theory can predict the behaviour of academic fraud committed by students. Evidenced by the r-square value for each model above 50 per cent, or the overall model has a moderate effect. In model 1, academic fraud behaviour is influenced by competence, opportunity and rationalization, shown by a p-value below 0.05, and the path coefficient shows a positive direction. At the same time, pressure and arrogance do not affect fraud behaviour in model one because it has a p-value above 0.05.

Model 2 shows the factors that cause students to cheat are competence, opportunity, pressure and rationalization because it has a p-value below 0.05, and the path coefficient indicates a positive direction. Still, the arrogance variable does not affect cheating behaviour because it has a p-value above 0.05. Models 3 and 4 have similar results in predicting fraudulent behaviour by students. All elements in the pentagon fraud theory are reasons for a student to commit fraud. There are differences in the results between models 1,2 and 3,4 because the more extended students study, the more they understand the conditions so that they can easily find various weaknesses so that they commit fraudulent behaviour.

#### 4.5 Discussions

#### a. Competency and Behavior of Academic Fraud

Ability is an essential element for someone to commit academic fraud. The test results distinguished model 1 (representation of semester one students), model 2 (representation of 3-semester students), capital 3 (representation of 5-semester students), and model 4 (representation of 7-semester students), explaining that competence has a positive

effect on academic fraud behaviour as evidenced by the p-value is below 0.05. The path coefficient values of all models are positive. Cheating will occur if students understand and know the methods that can be used to commit fraud. The ability possessed by students to commit acts of fraud is intended to suppress guilt, minimize shame, take advantage of existing opportunities, be skilled in using tools that support fraud and formulate appropriate strategies for committing fraud. Someone commits fraud usually because it has been done repeatedly, so this attitude has been internalized within him.

The higher the ability, the higher the potential for academic fraud. The results of this study support the pentagon fraud theory, which explains that ability is one of the elements that cause a person to commit fraud. Students who do not have the ability will not commit fraud because they realize these actions have significant consequences. The results of this study are relevant to research conducted by [8] reporting the ability to have a positive effect on academic fraud behaviour. Someone who has cheated repeatedly will become a culture for him, so he has good deceptive skills and will continue to do that behaviour [6]. The study [5] using the fraud triangle theory approach also found that ability is the main factor for someone to commit fraud. Likewise, studies that use the fraud diamond theory find competence in committing fraud will increase fraudulent behaviour.

#### b. Opportunity and Behavior of Academic Fraud

Opportunity is the second element for someone to commit fraud. Someone who can analyze opportunities to commit fraud will increase the potential for fraud. Someone who can read and take advantage of opportunities is someone who has good competence in committing acts of fraud. The study results show that opportunity as a whole positively affects academic fraud behaviour, as evidenced by the p-value below 0.05. The path coefficient values of all models are positive for models 1 to 4. The results of this study confirm the pentagon fraud theory with the relationship between opportunity and fraud behaviour. The pentagon fraud theory describes one of the causes of someone committing academic fraud because of their opportunity. Someone who can combine situations and conditions that make it possible to commit academic fraud and not be detected.

This study proves empirically that the higher the opportunity, the higher the potential for academic fraud to be committed by students. The results of this study are linear, with examinations conducted by [7, 27] finding opportunities to have a positive effect on the potential for academic fraud. Previous studies using the fraud triangle and diamond theory also found similar results to our research [2].

#### c. Pressure and Academic Fraud Behavior

Based on table 3, pressure does not affect the behaviour of academic fraud in model 1, and this is evidenced by the p-value greater than 0.05 (0.451). However, pressure positively affects student academic fraud behaviour in models 2, 3 and 4. Student characteristics influence the difference in results in model 1 with other models. Model 1 describes fraud behaviour in first-semester students (new students). Pressure does not affect academic fraud behaviour because first-semester students do not yet have pressure on the grade point average (GPA). Students do not feel they are getting high grades from their parents or those around them. Parents of students pay little attention to the stages of their children, and the most important thing is that their children graduate on time with good grades. The low score competition with friends is one of the factors that students need more

motivation to get high scores. Students can still overcome their pressure, so this does not encourage them to commit academic fraud.

The results of this study confirm the pentagon fraud theory, which explains that one component of fraud is pressure. In contrast to model one, models two, three and four found that pressure positively affects academic fraud behaviour. The greater the force students receive, the higher the potential for academic fraud. Pressure can come from institutions and people closest to and from the surrounding environment. The pressure that is greater than the ability possessed will tend to make a person ignore the values held. The results of this study are in line with research [30] which reports pressure has a positive effect on academic fraud behaviour. The higher the force received by students, the more students will look for ways to commit academic fraud [1, 24, 31].

#### d. Rationalization and Behavior of Academic Fraud

Rationalization is a form of justification permanently attached to fraudulent acts or even motivates students [32]. Rationalization results from academic fraud behaviour that has been internalized in a person. Someone who commits fraud will look for ways not to be considered a wrongful act so that he will seek justification for his behaviour [33]. The results of this study support the pentagon fraud theory, which explains the factors that influence fraud behaviour, one of which is the rationalization of the actions taken. This is evidenced by the results of the inner model test, which shows a p-value below 0.05, and the beta coefficient value is positive. Someone who can find a rationalization for every action will do the action repeatedly because they have no guilt.

A study conducted by [34] found that someone who can seek rationalization for wrong actions will increase fraud behaviour. Students who cheat repeatedly will cause a loss of morals and ethics. Based on the results of this study, students commit fraud because there is an assumption that most students commit fraud, the belief that fraud is done for an excellent purpose [1, 12]. The goal is completing exams and assignments, getting the desired grade, or helping friends. This is because some students who act fraudulently feel that the results are more valued than the process that is carried out [6, 23].

#### e. Arrogance and Behavior of Academic Fraud

In models one and two, arrogance does not affect academic fraud because first and third-semester students do not yet have an attitude of arrogance. This is evidenced by the p-value above 0.05. Models three and four confirm the pentagon fraud theory, which explains that the attitude of arrogance and greed of students influences fraudulent behaviour in the university environment. Arrogance is an attitude of superiority towards their rights, and an individual feels that internal controls or institutional policies do not apply to himself. Arrogance is an excessive attitude shown by someone. Arrogance is a reflection of arrogance because it has more ability than other people. If someone has high arrogance, he will be more likely to commit fraud. The results of this study are linear with previous research using the fraud triangle and fraud diamond theories which found arrogance has a positive effect on fraudulent behaviour [20, 22, 35, 36]. Another study found that arrogance has no impact on fraudulent conduct because other elements must support arrogance, so it is not the primary determinant.

# 5 Conclusion

The behaviour of student academic fraud in the 2021/2022 academic year is relatively high. Most fraudulent behaviour is cheating, copying and pasting papers, only entering zoom but not attending lectures, and using jockey services. This study confirmed the pentagon fraud theory, which revealed that five factors influence fraud: competence, opportunity, pressure, rationalization and arrogance. Students will commit academic fraud if they can trick other parties and can read options. Students who commit academic fraud because they are under pressure can then make justifications or rationalizations for their actions. Arrogance or greed encourages students to achieve academic fraud. The policy recommendation from this study is to advise relevant agencies to issue regulations governing academic fraud, both academically and legally, so that it will maintain the country's continuity through young people who have integrity.

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