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Influence of Fraud Diamond and Tri Pantangan Tamansiswa with AI on Academic Fraud

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ABSTRACT

This study aims to examine the influence of the Fraud Diamond perspective and the Tri Pantangan Tamansiswa teachings on the academic fraud behaviour of accounting students, with Artificial Intelligence (AI) serving as a moderating variable. This study employed a quantitative approach using a survey, targeting accounting students from the 2022 to 2023 intake at universities in the Special Region of Yogyakarta. A purposive sampling technique was used to select respondents, and the data were analysed in EViews using multiple regression and Moderated Regression Analysis (MRA). The findings revealed that both the Fraud Diamond elements and the Tri Pantangan Tamansiswa teachings significantly influence academic fraud behaviour. Specifically, the Fraud Diamond had a positive and significant effect, indicating that greater pressure, opportunity, rationalisation, and capability increase the likelihood that students will engage in fraud. Meanwhile, the Tri Pantangan teachings also exhibited a positive influence, suggesting that although students understand the moral values, these principles have not been fully practised in academic settings. Furthermore, the MRA results demonstrated that Artificial Intelligence (AI) strengthened the relationship between both independent variables and academic fraud behaviour, implying that AI use can potentially intensify the moral and ethical challenges faced by students in the digital learning environment.

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1. INTRODUCTION

Education plays a crucial role in human physical, mental, and ethical development. Universities aim to produce graduates who excel not only academically but also in moral development (Saldina et al., 2021). However, in academic settings, particularly among accounting students, academic dishonesty remains a serious problem. Many students focus more on final results than on the learning process, often resorting to various forms of cheating to achieve a high GPA (Prabowo & Wardani, 2021).

Technological advances, particularly Artificial Intelligence (AI), have had a significant impact on education. While AI facilitates access to information and the completion of academic assignments, it also opens up opportunities for increased academic dishonesty (Kautsar et al., 2024). Some websites even offer instant academic services such as exam answers, assignment guides, and paid essays, which can reduce student engagement in the learning process (Saduk & Chariri, 2024).

Accounting students play a crucial role in the professional world as accountants who must adhere to ethical principles, as stipulated in the Indonesian Accountants Code of Ethics. Unfortunately, academic dishonesty in college can carry over into the workplace (Yudiana & Lastanti, 2017). Academic dishonesty encompasses a variety of actions, including falsifying author data, plagiarism, duplicating assignments, cheating on exams, and illicit collaboration (Cardina et al., 2021).

One theory explaining the factors driving academic dishonesty is the Fraud Diamond theory (Wolfe & Hermanson, 2004), which consists of four elements:

1. Pressure – Students face high pressure to achieve a good GPA, graduate on time, and complete numerous assignments in a short time. This pressure increases the likelihood of cheating (Rahmadina & Hapsari, 2020; Pratama et al., 2023). However, Rachmawati et al. (2024) found no effect of pressure on academic dishonesty at Tanjungpura University.
2. Opportunity – Lack of oversight and weaknesses in the academic system provide opportunities for students to cheat without fear of detection (Saldina et al., 2021). This is supported by research (Warni & Margunani, 2022), although research (Gusti et al., 2024) shows different results.
3. Rationalisation – Students often justify their cheating with specific reasons (Warni & Margunani, 2022). Rationalisation is positively associated with academic cheating (Siregar & Kamal, 2021; Darmayanti et al., 2020), although Lestari et al. (2024) found no effect of rationalisation on academic cheating.
4. Capability – Individuals with a strong understanding of the academic system are more likely to exploit loopholes to commit cheating (Wardani & Saputri, 2023). Capability influences cheating behaviour (Pratama et al., 2023; Al Serhan et al., 2022), although Neva & Amyar (2021) report a negative effect.

In addition to the Fraud Diamond, the concept of the Tri Pantangan in the Tamansiswa teachings is also relevant to discussions of academic cheating. This teaching emphasises the prohibition against abuse of power, violations of morality, and financial misappropriation

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(Trisharsiwi et al., 2020). Students who understand and apply this teaching tend to have lower rates of academic dishonesty (Wardani & Meiningtiyas, 2023; Wardani & Saputri, 2023).

Artificial Intelligence (AI) as a moderating factor also contributes to the rise in academic dishonesty. By enabling AI to understand and respond to human language, AI can encourage students to become lazier and more dependent on instant solutions (Kautsar et al., 2024). The lack of regulation on the use of AI opens up opportunities for students to misuse it in academic assignments.

According to a report (Association of Certified Fraud Examiners, 2020), Indonesia recorded 175 cases of academic dishonesty, accounting for 73.2% of the total, and these cases continued into the workplace (Pertama & Anggiriawan, 2022). These data suggest that cheating in college can affect professional behaviour. This is consistent with the Theory of Planned Behaviour, which posits that individual intentions are influenced by attitudes, subjective norms, and perceived behavioural control; the stronger a person's intention, the greater the likelihood of action (Darmayanti et al., 2020).

This study focuses on accounting students at universities in the Special Region of Yogyakarta to examine whether the Fraud Diamond and the Tri Pantangan Tamansiswa teachings influence academic dishonesty. Differentiating from previous research, this study includes the moderating variable of Artificial Intelligence to provide a more in-depth perspective (Pratama et al., 2023; Saduk & Chariri, 2024).

Within the Theory of Planned Behaviour (TPB) framework, the four elements of the Fraud Diamond (pressure, opportunity, rationalisation, and ability) can influence students' attitudes and perceptions of control, thereby shaping their intentions to cheat (Budiman, 2018). The Tri Pantangan Tamansiswa teachings play a role in shaping subjective norms and ethical attitudes that encourage self-control to avoid unethical behaviour (Wardani & Saputri, 2023). However, the advent of Artificial Intelligence (AI) may alter this dynamic because technological conveniences make students feel more capable and secure in committing fraud, thereby strengthening the influence of the Fraud Diamond and diminishing the effectiveness of the Tri Pantangan in curbing fraudulent intentions (Wardani & Lestari, 2025).

To date, research on academic cheating has extensively explored the Fraud Diamond (Siregar & Kamal, 2021) and highlighted the role of ethical values, such as the Tri Pantangan Tamansiswa teachings, in shaping student behaviour (Wardani & Meiningtiyas, 2023). However, these two approaches are rarely combined within a comprehensive analytical framework. Meanwhile, research on the role of Artificial Intelligence in academic fraud remains largely descriptive and highlights only its potential for misuse (Kautsar et al., 2024), without examining how AI influences the relationship between Fraud Diamond elements and fraudulent behaviour.

Therefore, this study presents a novel approach through an integrative model that combines the Fraud Diamond, the cultural ethical values of Tri Pantangan Tamansiswa, and AI as a moderating variable. This approach is expected to provide a more comprehensive understanding of the dynamics of academic fraud in the digital era and to fill a gap in prior research (Wardani & Saputri, 2023).

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2. METHODS

This research employs a quantitative approach grounded in empirical, objective, measurable, and systematic methods. The population in this study was active students of the Accounting Study Program, intake 2022-2023, at universities in the Special Region of Yogyakarta, with a total population of 3,225 students. The sampling technique employed was purposive sampling, which involves selecting a sample based on specific criteria. The criteria applied in this study included:

1. Active students from the Accounting Study Program in the Special Region of Yogyakarta.
2. Students currently studying in their fourth semester or above.

The sample size is determined using the Slovin Formula:

$$n = \frac{N}{1 + N\,(e)^2}$$

$$n = \frac{3{,}225}{1 + 3{,}225\,(0.076)^2}$$

$$n = \frac{3{,}225}{19.6276}$$

n = 164.3094 rounded to 164

Note:

n = Number of samples required

N = Population

e = Predetermined precision (7.6%)

The precision parameter e = 7.6% was selected to balance the need for statistical precision with resource constraints and a realistic response rate across a large student population.

Data were collected through an online questionnaire (Google Form) distributed through social media and student groups. Of the 164 respondents, 164 met the inclusion criteria and were eligible for analysis.

This study has obtained ethical approval from the Accounting Study Program. All respondents provided informed consent before completing the questionnaire. Data collection was conducted anonymously without recording names, student ID numbers, or other personal identification. All information obtained is kept confidential and used solely for academic research purposes.

This study used a Likert scale for assessment, with five response options for each statement. For positive statements, scores ranged from 5 (strongly agree) to 1 (strongly disagree). Conversely, for negative statements, scoring was reversed, ranging from 1 (strongly agree) to 5 (strongly disagree).

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Table 1. Operational Definition and Variable Indicators

Operational Definition	Measurement Indicator	Scale
Fraud Diamond is a theory used to detect fraud that is not determined solely by pressure, opportunity, and rationalisation factors, but also by ability factors (Ningrum & Maria, 2022).	1. The importance of grade point average 2. The large number of assignments from lecturers 3. Students' lack of understanding of the lecture material 4. Difficult exam questions 5. The exam system is conducted online 6. Weak supervision during online exams 7. Lecturers do not differentiate work patterns 8. Lecturers are not thorough in checking student answers 9. They feel that cheating is commonplace 10. Sanctions are not firm, which does not deter perpetrators 11. They feel that their cheating does not harm others 12. They are ambitious to get high grades 13. They easily find ways to cheat 14. Behaviour during online exams 15. They are proud of cheating 16. They are able to control themselves and assess the situation and conditions 17. They have a specific strategy for cheating (Ningrum & Maria, 2022)	Likert
The teachings of the Tri Pantangan Tamansiswa are the teachings of Ki Hajar Dewantara regarding three prohibitions, which aim to form the character of an individual who is honest and obedient to rules, namely the prohibitions on abusing power, finances, and violating moral norms (Wardani et al., 2022)	1. Never abuse your power 2. Never misuse your finances 3. Never violate morality (Wardani et al., 2022)	Likert
Academic fraud is dishonest behaviour by students or college students that violates rules to achieve a specific goal	1. Using notes during an exam 2. Helping others cheat 3. Copying answers during an exam	Likert

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(Wardani & Meningtyas, 2023).	4. Using dishonest methods during an exam (Wardani & Meningtyas, 2023)	
Artificial Intelligence (AI) is a scientific discipline that aims to develop systems and machines capable of performing tasks typically requiring human intelligence (S. Lestari & Mutmainah, 2024).	1. Knowledge of Artificial Intelligence 2. Skills in using Artificial Intelligence 3. Utilisation of Artificial Intelligence in the academic field (S. Lestari & Mutmainah, 2024)	Likert

The research instrument, a questionnaire, measured the variables in this study. Data quality was assessed using validity and reliability checks to ensure accuracy and consistency. Validity was assessed using bivariate correlation analysis, and reliability using Cronbach's Alpha, with a threshold of >0.7. Data analysis techniques included descriptive statistics, classical assumption tests (normality, multicollinearity, heteroscedasticity), and hypothesis testing.

Multiple linear regression analysis was used to examine the relationship between the Fraud Diamond and the Tri Pantangan Tamansiswa teachings in relation to student academic dishonesty. Furthermore, a Moderated Regression Analysis (MRA) was conducted to evaluate the moderating role of Artificial Intelligence (AI). A t-test was used to assess the partial effect of the independent variables on the dependent variable, whereas an F-test was used to assess the overall model. The coefficient of determination (R^2) was used to assess the extent to which the model explained variation in accounting students' academic dishonesty behaviour.

3. RESULTS AND DISCUSSION

Research Result

Based on data analysis, the following research findings were obtained:

Descriptive Statistics Test

Descriptive statistics were used to provide an overview of the research data, including sample size, minimum and maximum values, means, and standard deviations for each variable. The descriptive statistics for all research variables, processed using EViews 12, are presented in the following table.

Table 2. Descriptive Statistics Test Results

Statistic	X1	X2	Y	Z
Mean	43.87195	47.43902	46.25610	34.97561
Median	47.50000	49.00000	48.00000	38.00000
Maximum	58.00000	55.00000	55.00000	45.00000
Minimum	13.00000	19.00000	27.00000	12.0000
Std. Dev.	10.54942	5.418889	5.662948	6.698550

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Statistic	X1	X2	Y	Z
Skewness	-0.974006	-2.211792	-1.034007	-0.827895
Kurtosis	2.920102	10.65991	3.892698	2.854096
Jarque-Bera	25.97442	534.6560	34.66954	18.88002
Probability	0.000002	0.000000	0.000000	0.000079
Sum	7195.000	7780.000	7586.000	5736.000
Sum Sq. Dev.	18140.31	4786.390	5227.244	7313.902
Observations	164	164	164	164

Source: Eviews version 12 output (processed)

Based on descriptive statistics, the number of respondents in this study was 164. The Fraud Diamond variable (X1) has a minimum value of 13.00, a maximum value of 58.00, and a standard deviation of 10.54942. The Tri Pantang understanding variable (X2) ranges from 19.00 to 55.00, with a standard deviation of 5.418889. For the academic fraud behaviour variable (Y), the minimum value is recorded at 27.00, the maximum value is 55.00, and the standard deviation is 5.662948. Meanwhile, the Artificial Intelligence variable (Z) has a minimum value of 12.00, a maximum value of 45.00, and a standard deviation of 6.698550.

Normality Test

A normality test was conducted to assess whether the regression model residuals were normally distributed. The test used the Jarque-Bera (JB) test with a significance level of 0.05. If the probability value (p-value) is greater than 0.05, then H_o is accepted, and the data are considered normally distributed. Conversely, if the p-value is less than or equal to 0.05, then H_o is rejected, indicating that the data are not normally distributed.

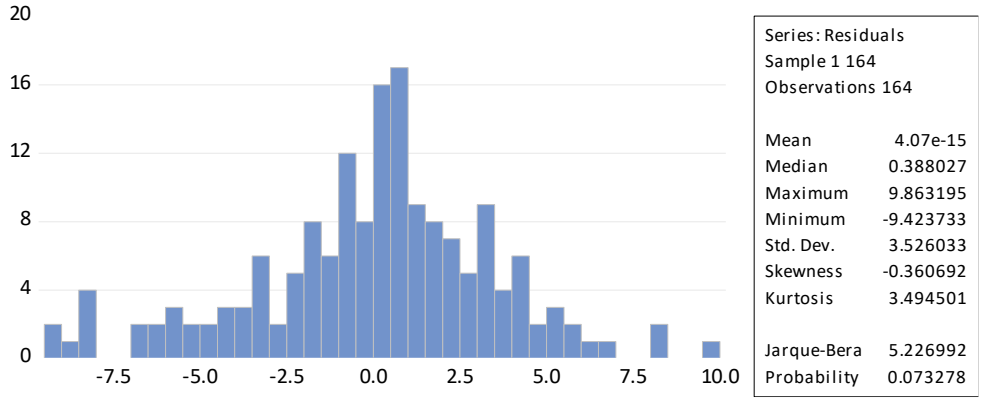

Figure 1 Normality Test Results

Source: Eviews version 12 output (processed)

Based on the results of the normality test, the Jarque-Bera probability value is 0.073278, which is greater than the 0.05 significance level. Thus, the data are normally distributed and meet the assumptions of normality.

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Heteroscedasticity Test

A heteroscedasticity test was conducted to assess whether the regression model exhibits heteroscedasticity. This test uses the Harvey method, with the decision criterion that, if the chi-square statistic exceeds the 5% significance level, the model is declared free of heteroscedasticity.

Table 3. Heteroscedasticity Test Results

Heteroskedasticity Test: Harvey Null hypotheses: Homoskedasticity			
F- statistic	2.959289	Prob. F (2,161)	0.0547
Obs *R-squared	5.815091	Prob. Chi-Square (2)	0.0546
Scaled Explained SS	5.802398	Prob. Chi-Square (2)	0.0550

Source: Eviews version 12 output (processed)

Based on the heteroscedasticity test results, the Obs*R-Squared probability value was 0.0546, which exceeded the significance level $\alpha = 0.05$. This indicates that the regression model is not heteroscedastic, so the heteroscedasticity assumption holds. Thus, the residual variance in the model is constant, and the model is considered suitable for use in the next stage of analysis.

Multicollinearity Test

A multicollinearity test is conducted to assess whether the independent variables in the regression model are correlated. The purpose of this test is to ensure that each independent variable in the model makes a unique contribution and does not unduly influence the others. According to Ghozali (2018), multicollinearity is absent when the Tolerance value is > 0.100, and the VIF value is < 10.00.

Table 4. Multicollinearity Test Results

Variable	Coefficient Variance	Uncentered VIF	Cantered VIF
C	6.178321	79.99705	NA
X1	0.001090	23.73438	1.561570
X2	0.003453	101.9150	1.304773
Z	0.002895	47.52957	1.671812

Source: Eviews version 12 output (processed)

The analysis results indicated that all independent and moderating variables had VIF values less than 10.00. Thus, it can be concluded that the regression model is free of multicollinearity and meets the assumption of no multicollinearity.

Autocorrelation Test

The autocorrelation test assesses whether the residuals from one observation are correlated with those from another. This test uses the Probability Obs*R-Squared value from

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the Breusch-Godfrey Test as the basis for decision- making. If the p-value exceeds 0.05, the model is not autocorrelated.

Table 5. Autocorrelation Test Results (Breusch–Godfrey LM Test)

Test Statistic	Value	Probability
F-statistic	1.521422	0.2216
Obs*R-squared	3.098718	0.2124

Null hypothesis: No serial correlation up to 2 lags

Source: EViews version 12 output (processed)

Based on the results of the autocorrelation test, the Obs*R-Squared probability value was obtained at 0.2124, which is greater than the significance level of $\alpha = 0.05$. Therefore, the regression model does not exhibit autocorrelation; thus, the assumption of no autocorrelation is met, and the data pass the autocorrelation test.

Correlation Test

The correlation test is used to determine the direction and degree of the relationship between variables before conducting regression analysis. The correlation coefficient (r) ranges from –1 to 1, with positive values indicating a positive association and values closer to 1 indicating a stronger association. Furthermore, this test also displays a significance value (p-value) to determine whether the relationship is statistically significant.

Table 6. Correlation Test Results

Variable	X1	X2	Y	Z
X1	1.000000	0.392379	0.579947	0.582843
		(5.429605)	(9.060918)	(9.129351)
		[0.0000]	[0.0000]	[0.0000]
X2	0.392379	1.000000	0.704036	0.457985
	(5.429605)		(12.61808)	(6.557329)
	[0.0000]		[0.0000]	[0.0000]
Y	0.579947	0.704036	1.000000	0.534681
	(9.060918)	(12.61808)		(8.053196)
	[0.0000]	[0.0000]		[0.0000]
Z	0.582843	0.457985	0.534681	1.000000
	(9.129351)	(6.557329)	(8.053196)	
	[0.0000]	[0.0000]	[0.0000]	

Notes:

Values in the first row represent correlation coefficients.

Values in parentheses ( ) indicate t-statistics.

Values in brackets [ ] indicate probability (p-values).

Source: Eviews version 12 output (processed)

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The correlation table indicates that all variables are significantly correlated at the 0.05 level ($p < 0.05$). Fraud Diamond (X1) is positively correlated with Tri Pantang (X2) at a moderate level ($r = 0.392$) and has a moderate-to-strong relationship with academic fraud (Y) ($r = 0.580$). Tri Pantang is strongly correlated with academic fraud ($r = 0.704$). Meanwhile, Artificial Intelligence (Z) has a moderate correlation with Tri Pantang ($r = 0.458$) and a moderate–strong correlation with Fraud Diamond ($r = 0.583$) and academic fraud ($r = 0.535$). The absence of correlation coefficients approaching ±1 indicates that multicollinearity is not a problem, and the data meet the requirements for subsequent regression analysis.

Regression and Hypothesis Test

This study employed multiple regression analysis to determine the influence of the Fraud Diamond and the Tri Pantangan Tamansiswa teachings on academic dishonesty, with Artificial Intelligence (AI) as a moderating variable. Based on the results of the estimation method selection in the previous section, the most appropriate method was the Least-Squares (OLS) method. The basic regression model is formulated as follows:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 +$$

This model is used to examine the direct effects of each independent variable on academic dishonesty, with AI (Z) included as a control variable. Therefore, the results of the multiple regression analysis using the Least-Squares method are presented in the following table.

Table 7. Multiple Linear Regression Test Results

Multiple Linear Regression: Least Squares

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	9.327601	2.485623	3.757621	0.0002
X1	0.163815	0.033020	4.961059	0.0000
X2	0.556575	0.058760	9.471970	0.0000
Z	0.095445	0.053807	1.773831	0.0780
R-squared	0.612307	Mean dependent variable		46.25610
Adjusted R-squared	0.605038	S.D. dependent var		5.662948
S.E. of regression	3.558936	Akaike info criterion		5.400888
Sum squared resid	2026.564	Schwarz criterion		5.476495
Log likelihood	-438.8728	Hannan-Quinn Criterion		5.431582
F-statistic	84.23269	Durbin-Watson stat		2.228733
Prob (F-statistic)	0.000000			

Source: Eviews version 12 output (processed)

F-Test (Fit Model)

The F-test in this study was used to determine whether the Fraud Diamond variable and the Tri Pantangan Tamansiswa teachings simultaneously influence or explain the dependent variable, namely the academic fraud behaviour of accounting students. The test is conducted by comparing the calculated F-statistic with the critical value from the F distribution. If the calculated F value is greater than the F-table, then H_0 is rejected, indicating a significant influence between the independent variables on the dependent variable.

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Table 8. F-Test Results

R-squared	0.612307	Mean dependent var	46.25610
Adjusted R-squared	0.605038	S.D. dependent var	5.662948
S.E. of regression	3.558936	Akaike info criterion	5.400888
Sum squared resid	2026.564	Schwarz criterion	5.476495
Log likelihood	-438.8728	Hannan-Quinn criterion	5.431582
F-statistic	84.23269	Durbin-Watson stat	2.228733
Prob (F-statistic)	0.000000		

Source: Eviews version 12 output (processed)

Table 8 shows the calculated F value in the variable estimation is 84.23269 and based on the significance level of 0.05, the Table value with df1 = 3- 1 = 2 df2 = 164- 3 = 161 obtained F Table = 3.05, thus F count > F Table (84.23269 > 3.05) means that fraud diamond and the teachings of tri pantangan tamansiswa have an effect on academic cheating behaviour. In addition, an F prob value < 0.05 (0.0000 < 0.05) indicates that fraud diamond and the teachings of tri pantangan tamansiswa have a significant effect on academic cheating behaviour.

Partial Test (T-Test)

The t-test is a statistical method used to assess whether each independent variable has a significant partial effect on the dependent variable. The testing process is performed by comparing the t-statistic value with the t-table value, or by comparing the probability value of the t-statistic to a predetermined significance level (α).

Table 9. T-test Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	9.327601	2.485623	3.757621	0.0002
X1	0.163815	0.033020	4.961059	0.0000
X2	0.556575	0.058760	9.471970	0.0000
Z	0.095445	0.053807	1.773831	0.0780

Source: Eviews version 12 output (processed)

Based on the estimation results in Table 8, the calculated t-value for the fraud diamond variable (X1) is 4.961059, which exceeds the t-table value of 1.654; thus, the hypothesis is accepted. This indicates that the fraud diamond influences academic dishonesty. This finding is supported by a p-value < 0.05, indicating a significant effect of the fraud diamond on academic dishonesty.

Furthermore, the calculated t-value for the tri-pantang tamansiswa teachings variable (X2) is 9.471970 > t-table value = 1.654; thus, the hypothesis is accepted, indicating that tri-pantang tamansiswa teachings influence academic dishonesty. This result is consistent with a p-value < 0.05, indicating a significant effect.

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Then the t-count for the artificial intelligence variable (Z) is 1.773831 > t-Table = 1.654, so the hypothesis is accepted, and the artificial intelligence variable has an effect on academic cheating behaviour. However, this is weakened by the t-statistic (p = 0.0780 > 0.05), indicating that the effect of Artificial Intelligence on academic cheating behaviour is not statistically significant.

Coefficient of Determination Test (R^2)

Table 10. Results of the Determination Coefficient (R^2) Test

R-squared	0.612307	Mean dependent var	46.25610
Adjusted R-squared	0.605038	S.D. dependent var	5.662948
S.E. of regression	3.558936	Akaike info criterion	5.400888
Sum squared resid	2026.564	Schwarz criterion	5.476495
Log likelihood	-438.8728	Hannan-Quinn criterion	5.431582
F-statistic	84.23269	Durbin-Watson stat	2.228733
Prob (F-statistic)	0.000000		

Source: Eviews version 12 output (processed)

Based on the table, the Adjusted R-squared value of 0.612307 indicates that 61.2% of the variation in changes in academic dishonesty behaviour is explained by the Fraud Diamond variable and the Tri Pantangan Tamansiswa teachings, while the remaining 38.8% is attributable to variables not included in this research.

Moderated Regression Analysis (MRA)

MRA is applied as a panel-data regression model to examine the effects of moderating variables. In this model, the regression equation includes an interaction term, computed as the product of the independent variable and the moderating variable. In this study, Artificial Intelligence (AI) acts as a moderating variable used to examine the interaction effect between the Fraud Diamond and the Tri Pantangan Tamansiswa teachings on academic fraud behaviour.

The MRA model is expressed as follows:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_1 * Z + \beta_4 X_2 * Z + \varepsilon$$

The interaction variables (X_X1*Z) and (X_X2*Z) are formed by multiplying the Fraud Diamond (X_1) and Tri Pantang (X_2) variables by the Artificial Intelligence (Z) variable. The formation of these interaction variables allows researchers to assess whether the use of AI strengthens or weakens the influence of the Fraud Diamond and Tri Pantang teachings on academic dishonesty.

Table 11. Results of the Moderated Regression Test (MRA)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-39.36883	7.712983	-5.104228	0.0000

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X1_Z	6.429632	2.753726	2.334884	0.0208
X2_Z	20.37067	3.977996	5.120838	0.0000
R-squared	0.475002	Mean dependent var		46.25610
Adjusted R-squared	0.468480	S.D. dependent var		5.662948
S.E. of regression	4.128595	Akaike info criterion		5.691875
Sum squared resid	2744.293	Schwarz criterion		5.748580
Log likelihood	-463.7337	Hannan-Quinn criterion		5.714895
F-statistic	72.83390	Durbin-Watson stat		2.310723
Prob (F-statistic)	0.000000			

Source: Eviews version 12 output (processed)

Referring to the results of the Moderated Regression Analysis (MRA) test displayed in Table 10, the following findings were obtained:

The interaction between the Fraud Diamond and Artificial Intelligence (X_1×Z) showed a p-value of 0.0208 < 0.05; thus, the hypothesis was accepted. This finding indicates that AI significantly moderates the relationship between the Fraud Diamond and academic dishonesty. The positive interaction coefficient confirms that the use of AI strengthens the influence of pressure, opportunity, rationalisation, and ability on students' propensity to cheat. In other words, when students already in the Fraud Diamond condition also have access to and skills in using AI, the opportunity and ease of cheating increases substantially.

Meanwhile, the interaction between the teachings of the Tri Pantang Tamansiswa and Artificial Intelligence (X_2×Z) had a p-value < 0.05; thus, the second hypothesis was also accepted. The positive interaction coefficient indicates that AI strengthens the influence of the Tri Pantang variable on academic dishonesty. This condition suggests that, although students understand the moral values of the Tri Pantang, the ease and speed afforded by AI weaken self-control and increase the likelihood of cheating. Thus, the widespread use of AI makes students' moral understanding insufficient to restrain the desire to commit dishonest academic acts.

Discussion

The Influence of Fraud Diamonds on Academic Fraud Behaviour

The partial t-test results in this study indicate that the Fraud Diamond has a positive effect on academic dishonesty. A probability value < 0.05 indicates that the higher the level of Fraud Diamond students experience, the greater their likelihood of committing academic dishonesty. This finding also aligns with the Theory of Planned Behaviour, which explains that behavioural control is influenced by an individual's consideration of attitudes and actions, with behavioural intentions being the primary factor that triggers a behaviour (Budiman, 2018). This means that before taking an action, a student typically considers the potential outcomes and consequences of that action. This suggests that high internal pressure can influence students' decision-making, leading to academic dishonesty as a response to that pressure (Rachmawati et al., 2024). This finding is consistent with the results of previous studies by Pratama et al. (2023), Herawaty & Masbirorotni (2022), and Novitaningrum &

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Nurkhin (2022), which showed that fraudulent diamonds significantly influence students' academic cheating behaviour.

The Influence of the Tri Pantangan Tamansiswa Teachings on Academic Fraud Behaviour

The partial t-test results indicate that the Tri Pantangan Tamansiswa teachings have a positive and significant effect on academic dishonesty. A probability value of 0.0000. A p-value < 0.05 indicates that the greater the students' understanding and application of the Tri Pantangan Tamansiswa teachings, the greater the likelihood of committing academic dishonesty. This finding relates to the variable's measurement method, which uses a Likert scale to assess students' level of understanding of the teachings, not the extent to which these values are actually internalised and implemented (Huda et al., 2022). Thus, high scores reflect students' knowledge rather than their self-control. The findings of this study are inconsistent with the Theory of Planned Behaviour (TPB), which posits that a person's behaviour arises from intentions formed through attitudes, subjective norms, and perceived behavioural control. According to this theory, students who understand moral teachings should have strong self-control to avoid dishonest behaviour (Wardani & Saputri, 2023). However, the results of this study indicate that moral understanding is not always directly proportional to ethical behaviour, because situational factors such as academic pressure, opportunity, and environmental influences can weaken students' self-control, so that even though they have good moral knowledge, students still have the potential to commit unethical acts (Zebua et al., 2023).

The Effect of Artificial Intelligence Moderates the Influence of the Fraud Diamond on Academic Fraud Behaviour

The results of the Moderated Regression Analysis (MRA) between Fraud Diamond and academic cheating behaviour showed a p-value < 0.05, indicating that Artificial Intelligence (AI) has a significant effect and moderates the relationship between Fraud Diamond and academic cheating behaviour. Conceptually, this effect can be explained through two main mechanisms in the Fraud Diamond: increased opportunity and increased rationalisation. First, the use of AI provides easy access to instant answers, automatic paraphrasing, and rapid task preparation. This situation increases the likelihood of committing fraud without requiring advanced technical skills and without the risk of detection (Kautsar et al., 2024). Second, technological advances are often perceived as "normal", making it easier for students to rationalise that the use of AI in assignments is acceptable (Mahayuni et al., 2025). Within the TPB framework, the convenience afforded by AI also increases perceived behavioural control, namely the perception that cheating is easy to commit and difficult to detect (Darmayanti et al., 2020). When academic pressure, opportunity, and rationalisation, the three elements of the Fraud Diamond, are amplified through the use of AI, the intention to cheat increases. This finding is consistent with previous studies showing that AI-based technologies can amplify the internal conditions of the Fraud Diamond, thereby triggering student cheating (Pratama et al., 2023). Thus, AI is not only an academic tool but also acts as a means of amplifying the effects

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of the Fraud Diamond by increasing opportunities, moral justification, and perceived ease of committing unethical acts (Saduk & Chariri, 2024).

The Effect of Artificial Intelligence Moderates the Influence of the Tamansiswa Tri Pantangan Teachings on Academic Fraud Behaviour

The results of the Moderated Regression Analysis (MRA) between the Tamansiswa Tri Pantangan teachings and academic cheating behaviour showed a p-value < 0.05, indicating that Artificial Intelligence (AI) has a significant effect and moderates the relationship between the Tri Pantangan teachings and academic cheating behaviour. In theory, the Three Abstinences serve as moral guidelines that shape ethical attitudes and subjective norms in the TPB. However, AI's moderation mechanism explains why moral understanding alone is insufficient to prevent cheating (Wardani & Meiningtiyas, 2023). AI provides instant solutions that reduce the need for personal effort, thereby weakening students' self-control to adhere to their understood moral values (Gandasari et al., 2024). AI creates conditions in which students can bypass the ethical learning process without directly violating it in front of lecturers. This technical convenience lowers psychological barriers to dishonest behaviour and widens the gap between moral understanding and actual practice (Huda et al., 2022). When AI facilitates cheating, the values of the Three Prohibitions, which should restrain unethical behaviour, lose their efficacy, thereby strengthening the positive relationship between the Three Prohibitions and academic dishonesty. These findings align with research on academic dishonesty, which shows that technology can weaken the effect of moral norms when ease of access reduces an individual's ethical resistance (Laturette et al., 2025). Therefore, AI serves as a trigger that makes it easier for students to ignore moral guidelines, thereby strengthening the relationship between the Three Prohibitions, measured as value understanding, and the tendency to cheat.

4. CONCLUSION

This study shows that both the Fraud Diamond and the Tamansiswa Tri Pantangan teachings have a positive influence on academic cheating, and that the use of Artificial Intelligence (AI) strengthens these relationships. Academic pressure, opportunities to cheat, rationalisation, and students' ability are driving factors of dishonest acts, whereas high Tri Pantangan scores reflect the level of moral knowledge rather than the internalisation of values in behaviour. AI functions as a trigger that facilitates cheating through rapid access and a low risk of detection, thereby strengthening the triggering factors for cheating from the perspective of the Theory of Planned Behaviour (TPB). Theoretically, these results confirm that technology, especially AI, can weaken the role of moral norms and increase perceived behavioural control, thereby encouraging cheating behaviour.

From a practical perspective, these findings indicate the importance of universities establishing ethical guidelines for the use of AI, strengthening digital monitoring systems in academic processes, and developing programs to internalise the Tri Pantang values that are more appropriate for technology-based learning contexts. This study is limited by its regional scope, which covers only the Yogyakarta Special Region (DIY), and by its focus on accounting

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students. Future researchers are advised to extend the study to other programs and regions, and to include variables such as academic integrity and religiosity to deepen understanding of the factors influencing academic dishonesty.

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