

The Influence of Fraud Triangle and Theory of Planned Behavior on Students Academic Fraud in Bali

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Abstract--This study aims to find out the effect of Fraud Triangle (X1) and Theory of Planned Behavior (TPB) (X2) on Academic Fraud (Y) by college students in Bali. The result of this study was hoped in providing the input for the lecturers in the learning process, especially when presenting the midterm or final exams. The instrument in this study was a questionnaire with a Likert scale with the validity and reliability tests were tested first. The data analysis technique used was multiple regression analysis techniques. The results of this study indicate that the value of Fraud Triangle (X1) on Academic Fraud (Y) is $p = 0.000 < 0.05$, Theory of Planned Behavior (TPB) (X2) on Academic Fraud (Y) is $p = 0.000 < 0.05$, and the value Fraud Triangle (X1) and Theory of Planned Behavior (TPB) (X2) on Academic Fraud (Y) is $p = 0.000 < 0.05$. It shows that there is a partial effect between each independent variable on the dependent variable. There is also a simultaneous influence between the independent variables on the dependent variable.

Keywords--*Fraud Triangle; Theory of Planned Behavior; Academic Fraud*

I. INTRODUCTION

The purpose of education in accordance with the 1945 Constitution of Republic Indonesia is outlined in Law No. 20 in 2003 article 3. It states "*Pendidikan nasional berfungsi mengembangkan kemampuan dan membentuk watak serta peradaban bangsa yang bermartabat dalam rangka mencerdaskan kehidupan bangsa, bertujuan untuk berkembangnya potensi peserta didik agar menjadi manusia yang beriman dan bertakwa kepada Tuhan Yang Maha Esa, berakhlak mulia, sehat, berilmu, cakap, kreatif, mandiri, dan menjadi warga negara yang demokratis serta bertanggung jawab*".

Considering this purpose, it is obvious that the results of education is not only to produce someone who has knowledge, but also someone who has noble character and personal integrity. But sometimes in reality, the educational goals are narrowed down by just focusing on the numbers or grades at graduation while integrity and honesty seems to be no longer important since the main orientation given to students is to have good scores. Consequently, students no longer pay

attention to learning process but will rather do everything they can in order to get good grades. By so doing, they get involved in things like cheating, plagiarism, absenteeism from class, and other fraudulent acts (Gustraprasaja, 2011).

Also, the belief of declining ethics in the current generation have led to the conclusion that academic fraud has reached its epidemic state. According to a study, Nursalam et al (2013) reported that the results of a survey conducted on 50 students at one of the universities in Makassar showed that 44 students (88%) indicated that they had cheated in an exam while 6 students (12%) said they had never. Then, Lin and Chen (2011) found out that 61.7% of students in a Taiwan school have committed academic fraud and what they did most was copying assignments from friends. Another researcher, Harding, et al (2007) also found out that 54% of students in a particular school committed fraud in doing exams and assignments. And it is a fact that these problems occurs in almost every state and private institution.

And as a matter of fact, fraudulent acts in academic have adverse effects on the perpetrators. According to Mulyawati, et al, academic fraud can impact on students' character like not being confident, indiscipline, irresponsible, not creative, laziness in reading textbooks but always ready to make notes for cheating from the same textbooks. In addition, Mulyati reported that this common culture of cheating is an indication that the culture of discipline is no longer in our educational institutions. And this does not only damage the integrity of education system but could also lead to a more serious behavior like criminal activities.

Psychologically, the behavior of academic fraud could be explained by the Theory of Planned Behavior (TPB). And according to the theory, Ajzen explains that human behavior is directed by three considerations; beliefs about the consequences of behavior (behavioral beliefs), beliefs about normative expectations of others (normative beliefs) and beliefs about factors that support or hinder behavior (control beliefs). Behavioral beliefs decrease the attitude toward the behavior, normative beliefs decrease the subjective norms while control beliefs reduce the perceived behavioral control.

And all these three affect the intention and then influence one's behavior. Stone, et al use TPB models and personality to predict academic fraud behavior and the results showed that attitude, subjective norm, and perceived behavioral control had a positive and significant effect on the intention. Meanwhile the intention and perceived behavioral control had a significant effect on cheating behavior. Then Alleyne and Phillips adopted a modified model of TPB developed by Beck and Ajzen and discovered that attitudes, subjective norms, perceived behavioral control and moral obligations significantly influenced students' intention to cheat and lie. But Harding, et al (2007) got different results after using a modified model of TPB to predict factors that influence fraud intentions and behavior. The factors of attitude, subjective norms and moral obligations have a significant effect on the intentions, while the perceived behavioral control factors have no significant effect on behavioral intentions. It indicates that the perceived ease is not related to the fraudulent behavior.

Also, students who commit academic fraud would be sanctioned starting from the warning till they are expelled from the institution, thereby jeopardizing their future. And the occurrence of many academic frauds in an institution will lead to the decrease in its quality of education. More so, these students who are supposed to be the future leaders, but are used to cheating, will only give rise to bad leadership in the future – bad personality and lack of integrity. So, the three elements of higher education i.e. students, lecturers and institutions should work harmoniously to reduce and eventually prevent academic fraud. Its success largely depends on the collaborative efforts of these three elements, all of which must be supporting each other (Sagoro, 2013). One way of preventing academic fraud is by creating adequate libraries so as to encourage more reading and always putting emphasis on students' main goal of going to college. This is in line with the opinion of Ramsey and Brown (2018) that "through strategic outreach efforts, academic libraries are important to players in that journey, helping these "imposters" not to negotiate their self-image and to take their essential place in academia and also belief in their ability to successfully complete their academic goals". For a better understanding, more light would be thrown on the following concepts: academic fraud, fraud triangles and planned behavior theory.

Academic Fraud

Different studies have been done on academic fraud and according to Eckstein (2003), it is an act carried out with an intention to commit dishonest acts which cause the differences in understanding, evaluating and interpreting things. Also, Purnamasari (2014) explained that it is a dishonest behavior by students in an academic setting to gain an unfair advantage in terms of obtaining academic success. There are even some students who acknowledge their fraud activities, such was recorded in Colombian Universities. According to the research carried out by Martinez and Ramirez R, it was discovered that "over 90% of the students surveyed admitted to the fact that they committed a fraud or the other during their university years and the percentage of students who always admit to

committing fraud had not changed in decade covered by the study. Additionally, Anderman and Murdock (2007) stated that academic fraud behavior is the use of all materials or assistance that are not allowed to be used in academic tasks or activities that interfere with the assessment process. Factors that influence the academic fraud according to Anderman and Murdock (2007) include self-efficacy, moral development, and religion. Meanwhile Davis, Drinan and Gallant (2009) defined fraud behavior as "deceiving or depriving by trickery, defrauding or misleading another". And if it is linked to academic fraud, it becomes an act done by students to cheat, obscure or deceive the teachers until they think that the academic work is done by the personally by those students.

Also, Hendricks (2004) defined academic fraud or academic dishonesty as a variety of behaviors that bring benefits to students dishonestly, including cheating, plagiarism, stealing, and falsifying something related to academics. Basically, it is carried out by students intentionally or unintentionally with various purposes and reasons. He also stated that there are several factors that influence academic fraud which include individual factors, student personality factors, contextual factors and situational factors. Colby in Sagoro (2013) also stated that in Arizona State University, academic fraud was divided into five categories, these are: plagiarism, data forgery, task duplication, cheating in exams, and wrong cooperation and all these are published by Arizona State University Integrity Advocates. And talking about the effects, every perpetrator of academic fraud, both individuals and educational institutions, always face the negative consequences. Such students will not show enough confidence and their weakness will easily be detected during the process of selection for employment opportunities after completing their university education (Mason, 2006). Also, Ranguti (2010) reported that the GPA owned by such students is invalid even if it is very high and for the institution, it could lead to decrease in its quality of education.

Fraud Triangle

According to Tuannakotta (2010), fraud is generally caused by three factors, and these are: (1) Pressure – which is a motivation of an individual to commit the fraudulent acts, this could be financial or non-financial pressure or an internal one. (2) Opportunity - is a condition where individuals commit fraud because of weaknesses in situations and conditions so that those individuals commit the fraud without being detected. And they do this using their skills. The greater the weakness in the system, the greater will be the cheating behavior. (3) Rationalization - is the consideration of individuals to commit fraud or justify themselves before committing the cheating act.

Also, Albrecht (2003) revealed that there are three key elements known as the fraud triangle and these determine why people commit fraud. They are: (1) **Pressure** - is a motivation that leads to inappropriate behavior. If someone feels under pressure, then he will commit fraud. It is in line with the opinion of SheltonPrasastie (2015) who stated that pressure is

someone's motivation to commit fraud and it is usually because of financial burden. And according to Wolfe and Hermanson (2004), fraud is more likely to occur when someone has an incentive to commit it. More so, pressure is caused by conditions, circumstances, or demands. (2) **Opportunity** - is almost similar to pressure and according to Albrecht et al in Prasastie (2015), is the increasing opportunities for individuals to commit fraud due to six factors: (a) The lack of control to prevent and detect fraud; (b) Inability to assess the quality of performance; (c) Failure to discipline the perpetrators of fraud; (d) The lack of supervision of access to information; (e) Indifference and inability to anticipate fraud; (f) The lack of audit trail; (3) **Rationalization** - is an internal conflict within the perpetrator in an attempt to justify his act. It refers to the justification that an inappropriate behavior is different from a criminal act. It is important to note that rationalization is difficult to see and observe, such as the impossibility of reading the minds of fraudsters. In this case, it will be very different from one person to another as what is rational for someone could not be for another person.

In the same vein, Wolfe and Hermanson (2004), showed in their studies that fraud is more likely to occur when someone has an incentive in the form of pressure, weak control or when the supervision provides opportunities for people to commit fraud, and that person could justify the act. They also stated that to improve on preventing and detecting fraud, it is necessary to consider a fourth element which is the individual's capabilities known as personal traits and abilities. Simply put, the perpetrator or the person who commit the fraud must have the expertise and ability to carry out the fraudulent act. And based on the results of a research conducted by Artini, she concluded that the student academic fraud behavior is simultaneously influenced by academic self-efficacy, pressure, opportunity, rationalization and capability to do fraud. Partial test shows that academic self-efficacy, pressure, and rationalization do not have influence on student academic fraud behavior while opportunities and capabilities have positive effects on student academic fraud behavior. Aside that, a research work stated that pressure, opportunity, rationalization, ability, greed, need and disclosure had a positive and significant impact on academic fraud (Munirah and Nurkhin, 2018).

Theory of Planned Behavior (TPB)

The Theory of Planned Behavior was derived from the Theory of Reasoned Action (TRA) developed by Beck and Ajzen (1991) which states that a person's reaction and perception toward something will determine the person's attitude and behavior. TRA assumes that a person's intentions precede the motivational factors that influence his behavior. This theory defines two measures of a person's intention to carry out a behavior; attitudes which reflect a feeling of being favorable or unavailable to a behavior and subjective norms which reflect the influence of other people's opinions that are significant to the individual to do or not to do a behavior.

Then the concept of Planned Behavior Theory developed from TRA states that there are three factors that determine intention; (1) **Attitude toward the Behavior**: which is a measure of a person's evaluation of the results of a behavior, whether positive or negative. A person's attitude towards a behavior consists of the belief in the outcome of the behavior. The more a person believes a behavior gives positive results, the more that person will favor it. The beliefs that make someone to behave in like manner are called Behavioral Belief. Harding et al (2007) reported that attitude has a positive and significant effect on intention. Stone, et al (2010) also found something similar to that, and Lin and Chen (2011) applied TPB to study fraud in the workplace and discovered that attitude had a positive and significant effect on intention, so respondents who had a positive attitude towards using company resources for personal purposes tend to have stronger intentions of doing so. (2) **Subjective Norm**: is a person's perception of social pressure that influences the decision to do or not to do a behavior. It is derived from belief in norms (beliefs about what others think about our behavior) and motivation to fulfill these beliefs which is called the Normative Belief. Generally in TPB theory, if someone has a good subjective norm, the greater the intention of the person to behave well. Some studies show a positive and significant relationship between the subjective norm and intention. (3) **Perceived Behavioral Control**: is the individual's perception of the ease and difficulty of doing a behavior. It is derived from the individual internal factors (information, expertise, abilities, emotions, and coercion) and individual external control factors (sources, opportunities, and dependence on others) which could affect the behavioral intentions, either directly or indirectly. The greater the perceived behavioral control, the greater the intention of a person to conduct the considered behavior. Then according to Stone, et al (2010), there is a positive and significant relationship between the perceived behavioral control and intention to commit academic fraud. In the same vein, Handayani (2013) used the modifications of TPB to examine academic fraud which was carried out in Universitas Brawijaya.

The result has it that perceived behavioral control has a positive and significant effect on behavioral intentions supporting earlier results. From the various studies above, it could be concluded that academic fraud is very dangerous for the future of students and will have an impact on their behavior in the community. It should be minimized as much as possible in Indonesia, especially in Bali. The Ganesha Education University is one of the largest state universities in Bali and has as many as 12,065 active students in 2018. And it has to produce qualified graduates who can compete in the industrial revolution era with GPA of 4.0. And a review of recent literature on academic dishonesty, according to Lewellyn and Rodriguez revealed that the factors that are significantly correlated to cheating in higher education are very similar to those factors that have been found to predict fraud in the corporate world. In addition, Burke and Kenneth in their research also concluded that academic dishonesty is not a victimless activity and if unchecked, it would

compromise the investment made by taxpayers and donors, cheapen the degrees held by alumni, mislead employers, diminish the moral integrity of the next generation, and fundamentally unfair to students who do not engage in such fraudulent act.

Admittedly, all members of faculties, community ethics officers, and administrators throughout the country are dedicated to maintaining the integrity of teaching and learning in their various institutions. Nevertheless, the statistics on cheating remain high. And to produce qualified graduates, one of the efforts made by the University of Ganesha Education is to require that each lecturer compile a Lecture Program Unit (SAP) for each subject they take thereby making the students to know and understand the problems that must be mastered and developed. And based on the experience of many lecturers, a lot of academic frauds are committed by students

in Bali, especially at the University of Ganesha Education during the midterm and final exam. Academic fraud made by students actually become a problem in almost all universities, but this study will focus more on the academic fraud behavior of the students of the Faculty of Economics, Ganesha Education University.

II. METHODOLOGY

This is a causal research and it can be used to analyze the relationship between variables. According to Sugiyono (2015), causal research has several stages which are: (1) formulating the problems, (2) reviewing the theories, (3) collecting data, (4) analyzing data, and (5) drawing conclusions. And the variables in this study are Fraud Triangle and Theory of Planned Behavior (TPB) as independent variables while Academic Cheating is the dependent variable. The summary of the research design is as shown in Figure 1.

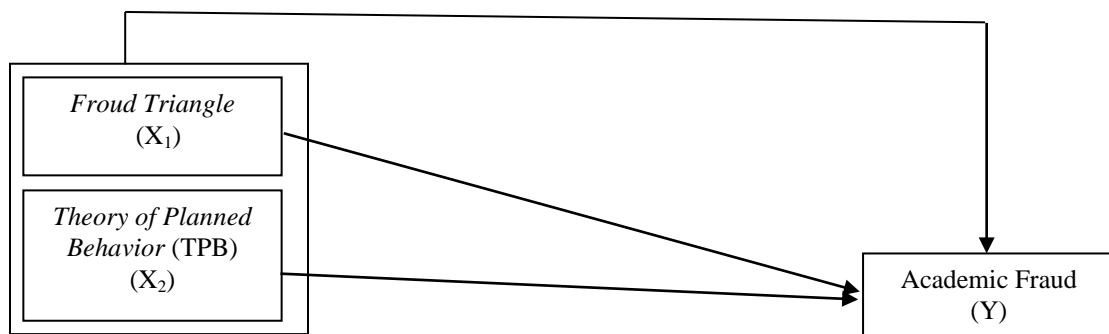


Figure 1. The Research Design of the Effect of Triangle Fraud and Theory of Planned Behaviour (TPB) on the Academic Fraud by Students in Bali

The figure above shows that Fraud Triangle (X1) has a partial effect on Academic Fraud (Y), Theory of Planned Behavior (TPB) (X2) has a partial effect on Academic Fraud (Y), and both Fraud Triangle (X1) and Theory of Planned Behavior (TPB) (X2) simultaneously affects Academic Fraud (Y). The population in this research were students of FE Undiksha from five departments with a total population of 2,858 students. The proportional random sampling technique

was used in this study to determine the proportion of students from each department. And for the formula used in determining the sample size, Isaac and Michael (in Sugiyono, 2015) stated that out of a large number of populations, with the error rate being tolerated in sampling as much as 1%, 5% or 10%, they could be represented by a certain number of samples. So this study was represented by a sample size of 285 students who were taken from five departments of the school.

Table 1. The Proportion of Sample Distribution of Each Department

No	Department	Number of Students (Number of student/Population*Sample)	Sample Distribution
1.	Department of Economic Education	428/2.858*285	43
2.	S-1 Department of Accountancy	1.394/2.858*285	138
3.	Department of Management	896/2.858*285	89
4.	D-3 Department of Accountancy	67/2.858*285	7
5.	D3 Hospitality Department	73/2.858*285	8
Total			285

Source: Department of Student Affairs of FE Undiksha Singaraja in 2018

III. FINDING AND DISCUSSION

The results from the SPSS analysis of the effect of Fraud Triangle and Theory of Planned Behavior (TPB) on the

Academic Fraud of Students in Bali are shown in the table below:

Table 2. The Regression analysis of the influence of Fraud Triangle on Student Academic Fraud in Bali

Model		Coefficients ^a				
		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	6.993	.667		10.490	.000
	Fraud Triangle	.184	.016	.561	11.391	.000
a. Dependent Variable: Academic Fraud						

From the SPSS results shown in Table 2, Fraud Triangle has a positive effect on the Academic Fraud of Students in Bali as shown by the regression analysis with $p = 0.000$ which is far less than 0.05. This is an indication that Fraud Triangle which is made up of pressure, opportunity and rationalization could influence the academic fraud these students. And the existence of both internal and external pressure could cause students to commit academic fraud. The opportunity during exam also give room for students to

commit fraud. This is as a result of the weaknesses of the situation and conditions where their cheating acts could not be detected. Aside this, those two things, the rationalization or justification notion of students on academic fraud make them feel they can cheat. On the contrary, they also want good grades to graduate with and so they see the acts as something right. The results of SPSS analysis on Theory of Planned Behavior (TPB) with Student Academic Fraud are shown in Table 3.

Table 3. The Regression analysis of the influence of Theory of Planned Behaviour (TPB) on Student Academic Fraud in Bali

Model		Coefficients ^a				
		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	7.957	.640		12.425	.000
	TPB	.197	.019	.524	10.354	.000
a. Dependent Variable: Academic Fraud						

The result above showed that the Theory of Planned Behavior (TPB) had a positive effect on Student Academic as shown with the value of $p = 0.000$ which is also less than

0.05. The results of SPSS analysis on the influence of Fraud Triangle and Theory of Planned Behavior (TPB) on Academic Fraud are shown in Table 4 below:

Table 4. The Regression analysis on The Influence of Triangle Fraud and Theory of Planned Behavior (TPB) on Academic Fraud of Students in Bali

Model		ANOVA ^b				
		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	763.028	2	381.514	82.064	.000 ^a
	Residual	1311.021	282	4.649		
	Total	2074.049	284			
a. Predictors: (Constant), TPB, Froud Triangle						
b. Dependent Variable: Kecurangan Akademik						

From the SPSS results, Fraud Triangle and Theory of Planned Behavior together influence Academic Fraud of those students with the regression analysis with $p = 0.000$ which is less than 0.05 and F value is 82.064.

IV. CONCLUSION

Considering the results discussed previously, it could be concluded that (1) there is a positive and significant influence between Fraud Triangle (X1) on Student Academic Fraud (Y) in Bali, (2) there is a positive and significant influence between the Theory of Planned Behavior (TPB) (X2) towards Academic Fraud (Y) Students in Bali, (3) and there is a positive and significant influence between Fraud Triangle

(X1) and Theory Of Planned Behavior (TPB) (X2) on Student Academic Fraud (Y) in Bali.

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