

# How do fraud diamond and procrastination trigger cheating behavior in online learning during the Covid-19 pandemic?

Novita Novita, Firdatul Jannah\*

Universitas Trilogi, Jakarta Selatan, DKI Jakarta, Indonesia

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## ABSTRACT

The Covid-19 pandemic that hit Indonesia has changed the pattern of the learning system from face-to-face in the classroom to online learning. In practice, the online learning system utilizes information technology, which raises not only effectiveness, but also new challenges. One of the challenges of the online learning system is the student cheating behavior. This study aims to determine the effect of the fraud diamond dimensions, which consist of pressure, opportunity, rationalization, and capability, and procrastination on the detection of student cheating behavior. This research is a quantitative research. The data used is primary data in the form of questionnaires. The respondents of this study are college students at LLDIKTI Region III DKI Jakarta. The data consists of 400 sample students. Data testing is carried out using STATA Version 14.2. The results of this study indicate that the fraud diamond dimensions consisting of pressure, opportunity, rationalization, and capability have a positive effect on the detection of student cheating behavior. Procrastination also has a positive effect on the detection of student cheating behavior.

## ABSTRAK

Pandemi Covid-19 yang terjadi di Indonesia mengubah pola pada sistem pembelajaran dari yang biasanya bersifat tatap muka secara langsung di ruang kelas menjadi pembelajaran dalam jaringan atau yang dikenal dengan pembelajaran daring. Sistem pembelajaran daring ini menggunakan bantuan teknologi informasi dalam proses pelaksanaannya. Efektivitas dan tantangan muncul secara bersamaan dalam proses pembelajaran daring. Salah satu tantangan dari sistem pembelajaran daring adalah perilaku kecurangan mahasiswa. Penelitian ini bertujuan untuk mengetahui pengaruh dimensi fraud diamond yang terdiri dari tekanan, peluang, rasionalisasi dan kemampuan serta prokrastinasi dalam mendeteksi perilaku kecurangan mahasiswa. Penelitian ini merupakan penelitian kuantitatif. Data yang diambil berbentuk data primer berupa penyebaran kuesioner. Responden penelitian ini adalah mahasiswa perguruan tinggi di LLDIKTI Wilayah III DKI Jakarta. Data yang berhasil terkumpul sebanyak 400 sampel mahasiswa. Pengujian data menggunakan STATA Versi 14.2. Hasil penelitian ini menjelaskan bahwa fraud diamond yang terdiri dari tekanan, peluang, rasionalisasi dan kemampuan berpengaruh positif terhadap perilaku kecurangan mahasiswa. Hasil uji prokrastinasi juga menunjukkan adanya pengaruh positif terhadap perilaku kecurangan mahasiswa.

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\* Corresponding author, email address: firdatuljannah18@gmail.com

## 1. INTRODUCTION

The Government permitted all colleges to implement online learning system during the pandemic of Covid-19. This is as an effort to break the chain of the spread of that pandemic. The online learning system is a distance learning process by utilizing information technology. The online learning system can raise not only effectiveness, but also new challenges. One of the effectiveness of the online learning system, it is considered flexible and not bound by time and space because the teaching and learning process can be done from home or other places (Sadikin et al., 2020). Through the online learning system, students can build the character of independence because the control comes from the student's responsibility. Challenges also occur during the online learning process because lecturers cannot monitor student activities due to different distant places. Lecturers do not know the students' real activities during the online teaching and learning process. Therefore, there is no guarantee whether students can really absorb the learning material given by the lecturer (Sadikin et al., 2020). The challenge faced by students in the online learning system is the tendency of students to feel academic stress caused by several factors such as difficulty concentrating on the materials during the learning process. It also deals with difficulty to understand the virtual material provided by the lecturers, excessive virtual material being studied, and the lack of feedback provided by the lecturer to students (Lubis et al., 2021).

All the problems above affect students' behavior patterns and can also encourage them to commit fraud. Students' cheating behavior is a fraudulent act that they do intentionally. They also hide the behavior with the aim of getting benefits for themselves, but harming other parties (Artani & Wetra, 2017; Nurfuad, 2020 ). Cheating behavior that the students often do during online learning is the misuse of information technology such as media zoom, google meet, whatsapp, and other social media, especially when taking online exams. They take advantage of the sophistication of information technology as a medium to work together by exchanging test answers with other friends when in exams. Students also turn off camera video zoom or google meet during the learning process so that the lecturers cannot monitor their activities during the online learning process.

Many factors trigger a student to cheat during the learning process. It includes cheating in online learning. One theory that explains the triggering factors for fraud is the fraud diamond. Indicators of the causes of student fraud, based on the fraud diamond theory, researchers can measure it through the pressure that students have, the opportunities during online learning, the emergence of student rationalization, and the capabilities they have.

Academic stress factor is a form of student pressure during online learning. Pressure, both external and internal, can trigger a person to behave fraudulently. One of the external factors for the emergence of student pressure comes from the economic and social conditions of the family. Students are required to get good academic grades so that they feel pressured if the lecture material is not well understood (Amalia & Nurkhin, 2019) involving people aged 65 years and over referred to an occupational therapy department for home assessment. There were 52 subjects with a recent hip fracture, 43 fallers (subjects with two or more falls in the past year but no hip fracture. The internal factor of the emergence of student pressure is that students will just study the exam material when the time for exam is approaching, so they have a lot of material to learn in a short time. The higher the pressure the students have, the more likely they are to commit fraudulent behavior (Becker & Paula, 2006).

In online learning, students are in a different place from the lecturer. This provides opportunities for students to commit fraudulent behavior. In this case, students have opportunity to commit fraud because of weak academic control (Wolfe & Hermanson, 2004). Opportunities during online learning include easy internet access during online exams, easy collaboration, and easy sharing of answers using social media, zoom or google meet and the availability of test answers on the internet. The more opportunities students have, the more likely they are to commit fraud (Wahidin et al., 2020).

Rationalization is the emergence of thoughts of justification for fraudulent behavior (Wolfe & Hermanson, 2004). Student cheating behavior occurs because many of them commit fraudulent acts so that they justify the behavior (Wahidin et al., 2020). The

rationalization that the students most often do in online learning is to see the number of students who commit cheating behavior. Therefore, they are also motivated to cheat and they think that this behavior is reasonable. The last indicator of the fraud diamond dimension is capability. The addition of the capability factor as fraud detection is done because fraud can only occur if someone is able to do it (Wolfe & Hermanson, 2004). The capabilities such as understanding the conditions that occur, provide an opportunity for students to gain benefits for themselves (Bachtiyar, 2020). The greater the capabilities the students have, the greater the possibility for the students to commit fraudulent behavior (Amalia & Nurkhin, 2019) involving people aged 65 years and over referred to an occupational therapy department for home assessment. There were 52 subjects with a recent hip fracture, 43 fallers (subjects with two or more falls in the past year but no hip fracture).

Procrastination is one of the factors causing students' cheating behavior, apart from the fraud diamond indicators. Procrastination refers to the students' behavior where they tend to be accustomed to delaying the completion of their assignments and prefer to do activities outside of lectures. The tendency of students to delay completing assignments will encourage them to cheat such as copying a friend's answer or copy-pasting writing from the internet. The greater the procrastination carried out by students, the greater the possibility for the students to commit fraud (Arifah et al., 2018) involving people aged 65 years and over referred to an occupational therapy department for home assessment. There were 52 subjects with a recent hip fracture, 43 fallers (subjects with two or more falls in the past year but no hip fracture). Procrastination behavior arises because there is no sense of responsibility and discipline towards online learning and task completion.

According to research conducted by Wahidin et al (2020), the indicators of students' cheating behavior include helping their friends cheat on exams, doing anything to cheat on exams, getting exam questions before exam time, and copying and pasting other people's writings without including the original source. The indicators of student cheating behavior, according to research conducted by Billy et al (2019) commit academic dishonesty based on fraud diamond theory and refers to (Sabli, Hamid, Haron, & Wahab, 2018, include

copying and acknowledging other students' assignments as their own work, asking others for exam questions who have already done them, quoting other writers' sentences without writing down the source, and cheating on exam.

The difference between this study and previous studies is that this study defines student-cheating behavior that is associated with cheating in the misuse of information technology, where students use information technology as a means to cheat during the online learning process and exams, such as the use of whatsapp, zoom, google meet and other social media. In addition, this research also links the conditions of the Covid-19 pandemic with the fraud diamond indicator. Pressure is associated with a decrease in the income of students' parents, termination of employment in students' families, and academic stress during online learning. Opportunity is associated with weak academic control during the online learning process and exams. Rationalization is associated with signal condition, online learning quotas, and limited interaction between lecturers and students. Capabilities are associated with the ability of students to master information technology.

## 2. THEORITICAL FRAMEWORK AND HYPOTHESIS

### Student Cheating Behavior

Students' cheating behavior is an action taken by them intentionally to deceive or hide their behavior with the aim of gaining benefits for themselves and harming other parties (Artani & Wetra, 2017; Bachtiyar, 2020). Forms of student cheating behavior include plagiarizing other people's writings by falsifying information data, not quoting or including the author's name, and asking seniors' assignments for copying. Students' cheating behavior also often occurs during online learning by utilizing information technology such as zoom, google meet, whatsapp, and other social media as a medium to work together in answering exam questions during online learning. Academic cheating behavior also occurs in the online learning process where students often turn off online learning media cameras such as zoom, google meet, and other media so that lecturers cannot monitor the students' activities.

### Fraud Diamond

Four indicators of the fraud diamond, consisting of pressure, opportunity, rationalization, and

capability, are used to detect fraud committed by someone (Fadri & Khafid, 2018; Wolfe & Hermanson, 2004).

### **Pressure**

The drive that occurs in a person to achieve what he wants but with limited abilities can cause pressure (Wolfe & Hermanson, 2004). Pressure from internal factors includes bad habits. This habit can trigger students to experience academic stress (Lubis et al., 2021). Internal pressure arises because students are less able to manage time. They have bad habits such as spending more time organizing and doing other activities so that their academic tasks pile up. In addition, the tendency of students to study the material again when the exam time is approaching makes students overwhelmed and unable to absorb the material.

The pressure due to the accumulation of assignments or the abundance of material to be studied leads to student cheating behavior by copying their friends' assignments or looking for answers on the internet during online exams. The pressure experienced by almost all students in Indonesia during online learning during the Covid-19 pandemic was the family's economic condition, where many parents of students experienced layoffs due to the cessation of the economy during the social restrictions period. This has an impact on students' ability to provide facilities that support online learning, such as computers or laptops/notebooks that are adequate in terms of cameras and sound as well as sufficient quotas for the learning process.

### **Opportunity**

Opportunity is a condition that is utilized by someone to commit fraud because of weak control (Wolfe & Hermanson, 2004). Online learning creates many opportunities because of the weak academic control. Sophisticated information technology can be used as a means to do negative things in the learning process. The opportunities that have the potential to be exploited for cheating during online exams include the questions in the exam are only limited to theoretical definitions, the answers to the questions provided are available on the internet, exam questions have been discussed in practice during lecture sessions. All these make students easier to find answers on the internet, open books and note, and collaboration with other students. The opportunities will be

more open when lecturers are in providing less feedback and less in inviting them to participate actively in the learning process.

### **Rationalization**

Rationalization is a perception of injustice in a person so that the person justifies the behavior he does (Wolfe & Hermanson, 2004). Rationalization carried out by students arises as an effort to reduce their guilt for cheating committed (Wahidin et al., 2020). The rationalization carried out by students for their cheating behavior during online learning is caused by limited interaction between lecturers and students. Lecturers provide material only in *power point* or *pdf* form so students must study the material by themselves. Thus, when there is material that is difficult to understand, students do not know what to do (Sadikin et al., 2020). Rationalization of cheating appears because students have difficulty in answering exam questions because of a lack of understanding of the material due to limited interaction with lecturers. Rationalization carried out by students also occurs because they know that there are many students who commit fraud so that this behavior is considered a natural thing to do as long as the students cover each other's cheating behavior (Billy et al., 2019) commit academic dishonesty based on fraud diamond theory and refers to (Sabli, Hamid, Haron, & Wahab, 2018).

### **Capability**

Someone commits fraud because he feels that he has the capability to do it and no one knows his behavior (Wolfe & Hermanson, 2004). Fraud perpetrators must be able to understand situations and loopholes to commit fraud so that they get convenience in carrying out their actions that tend to harm others (Billy et al., 2019) commit academic dishonesty based on fraud diamond theory and refers to (Sabli, Hamid, Haron, & Wahab, 2018). One indicator of capability that is appropriate to the situation during online lectures is the ability of students to take advantage of weak controls by abusing information technology. The ability of students to use information technology tends to be reliable because they are millennials who are responsive to technology. The expertise in using information technology makes them commit fraudulent behavior and they know that their actions are not recognized by others.



### **Procrastination**

Procrastination is a behavior that tends to delay the completion of tasks. Procrastination arises because of the dominant factor for students to prefer to do activities outside of college activities, such as watching movies, drama series, playing online games, or opening social media which is much more interesting than doing assignments (Wattimena, 2015). In terms of academics, procrastination is carried out by students intentionally and consciously, and they know that their assignments have not been completed (Wicaksono, 2017). Most students work on assignments when the assignment is approaching the deadline. Students have a tendency to procrastinate on assignments. This encourages them to behave fraudulently, especially when submitting assignments is approaching the deadline. In the end, they just copy the answers of friends or look for answers on the internet without understanding the theoretical basis or the answers copied well.

### **The Effect of Pressure on Student Cheating Behavior**

The fraud diamond theory states that someone who is under pressure tends to be driven to commit fraudulent behavior (Wolfe & Hermanson, 2004). This pressure can be due to piling up assignments, not understanding the material, the amount of material that must be studied before the exam due to the student's inability to manage time, and bad habits that lead to cheating when answering exam questions. According to Amalia dan Nurkhin (2019) involving people aged 65 years and over referred to an occupational therapy department for home assessment. There were 52 subjects with a recent hip fracture, 43 fallers (subjects with two or more falls in the past year but no hip fracture, pressure has a positive effect on academic cheating behavior. The results of research conducted by Arifah et al (2018) involving people aged 65 years and over referred to an occupational therapy department for home assessment. There were 52 subjects with a recent hip fracture, 43 fallers (subjects with two or more falls in the past year but no hip fracture also state that pressure has a positive effect on academic dishonesty behavior. Likewise, the results of research conducted by Murdiansyah et al. (2017) and Zamzam et al. (2017) also show that pressure has a positive effect on student cheating behavior.

H1: Pressure has a positive effect on student cheating behavior.

### **The Effect of Opportunity on Student Cheating Behavior**

Students commit fraud because they can get what they want and no one else knows about the act use opportunities. Therefore, they will not be penalized by the academic side for their actions (Wolfe & Hermanson, 2004). The results of research conducted by Murdiansyah et al. (2017) prove that opportunity has a positive effect on academic cheating behavior. The results of research conducted by Amalia & Nurkhin (2019) involving people aged 65 years and over referred to an occupational therapy department for home assessment. There were 52 subjects with a recent hip fracture, 43 fallers (subjects with two or more falls in the past year but no hip fracture also show that opportunity has a positive effect on academic fraud. In addition, the results of research conducted by Wahidin et al. (2020) also show that opportunity has a positive effect on academic cheating behavior.

H2: Opportunity has a positive effect on student cheating behavior.

### **The Effect of Rationalization on Student Cheating Behavior**

Rationalization is one of the factors that cause students to cheat because they consider many of their friends do the same. They are encouraged to cheat and cover up the behavior with each other. Rationalization has a positive effect on student fraud behavior (Murdiansyah et al., 2017). The results of research conducted by Amalia & Nurkhin (2019) involving people aged 65 years and over referred to an occupational therapy department for home assessment. There were 52 subjects with a recent hip fracture, 43 fallers (subjects with two or more falls in the past year but no hip fracture prove that rationalization has a positive effect on cheating behavior. Furthermore, the results of research conducted by Wahidin et al. (2020) show that rationalization has a positive effect on academic fraud behavior.

H3: Rationalization has a positive effect on student cheating behavior.

### **The Effect of Capability on Student Cheating Behavior**

A student dares to cheat because he has the ability to do it without being known by others (Wolfe & Hermanson, 2004). Students tend to be encouraged to commit cheating behavior because they have the ability to understand conditions and to utilize information technology well so that other parties do not know the action. The results of research conducted by Zamzam et al., (2017) prove that capability has a positive effect on academic fraud. The results of research conducted by Fadri & Khafid (2018) also show that capability has a positive effect on academic fraud. In addition, the results of research conducted by Amalia & Nurkhin (2019) involving people aged 65 years and over referred to an occupational therapy department for home assessment. There were 52 subjects with a recent hip fracture, 43 fallers (subjects with two or more falls in the past year but no hip fracture also show that capability has a positive effect on academic fraud.

H4: Capability has a positive effect on student cheating behavior.

### **The Effect of Procrastination on Student Cheating Behavior**

Students who often delay their tasks will tend to commit cheating behavior. The closer to the deadline, the more in a hurry in completing their assignments is. Therefore, they will do anything including copying answers from the internet or cheating on the results of their friends' duties. Procrastination has a positive effect on student fraud behavior (Arifah et al., 2018) involving people aged 65 years and over referred to an occupational therapy department for home assessment. There were 52 subjects with a recent hip fracture, 43 fallers (subjects with two or more falls in the past year but no hip fracture. In addition, the results of research conducted by Prasetyo & Handayani (2019) also prove that the procrastination has a positive effect on academic fraud behavior.

H5: Procrastination has a positive effect on student cheating behavior.

## **3. RESEARCH METHOD**

This study uses a quantitative approach. The data source used is primary data in the form of a questionnaire. The population used in this study is under graduate students from various study programs in several tertiary institutions with accreditation A or B that have

been validated by the National Accreditation Board for Higher Education (BAN-PT) in LLDIKTI Region III DKI Jakarta. This study was conducted in 2021. The number of research population is 67,218 taken from Higher Education data in LLDIKTI Region III DKI Jakarta. Sampling is determined using a probability sampling technique because the existence and number of population has been known based on the data obtained. The sample calculation is done using the Slovin formula as follows:

$$N = N / (1 + N \cdot a^2) = 67,218 / (1 + 67,218 \cdot 0,05^2) = 399,993$$

Based on the results of the calculation using the Slovin formula, the number of samples is 399,993. The technique used in collecting research samples is stratified random sampling, a process that involves grouping in the study population, which is divided into several sub-populations. Research sampling is carried out using proportionate stratified random sampling design (Sugiyono, 2017).

Data analysis is carried out using STATA version 14.2 to prove and get the truth of the proposed hypothesis by involving linear regression analysis. The stages of research analysis include descriptive analysis of respondents, validity and reliability analysis, goodness of fit analysis, and linear regression analysis. The researchers did the descriptive analysis to see the value of the variable frequency distribution and to determine the level of achievement of each variable. This study uses intervals in the form of a 4 -point Likert scale, which consists of 1) Strongly Disagree, 2) Disagree, 3) Agree, and 4) Strongly agree.

Analysis of the validity of a variable can be seen from the value obtained at each statement indicator to meet the feasibility and accuracy of the research results (Sugiyono, 2017). The validity testing criteria is that a research variable is said to be valid if the resulting correlation coefficient value is not less than 0.50 (Sugiyono, 2017).

Testing the reliability of a variable is carried out to determine the reliability of the research results, which means that the research results can produce reliable information if the results are in accordance with the facts that occur. The higher the reliability of the statement indicator, the more reliable the research results are. The criterion for measuring reliability is by looking at the value of Cronbach's alpha. If the

value is  $\geq 0.70$ , it is reliable. Linear regression test is a hypothesis test by looking at the results of the partial test by comparing the significant results (p-value) with an alpha level of 0.05 (5%). In testing the hypothesis, the p-value must be  $< \alpha$ , so that it is declared that the variable has an effect. On the other hand, if the p-value is  $\geq \alpha$ , it is declared to have no effect (Sugiyono, 2017).

Variables are also said to be research objects used by researchers to be tested and then conclusions are drawn in the form of research analysis (Sugiyono, 2017). The independent variables used in this study are fraud diamond indicators, consisting of pressure, opportunity, rationalization, and

capability, and procrastination. Meanwhile, the dependent variable used in this study is student-cheating behavior.

#### 4. DATA ANALYSIS AND DISCUSSION

Based on Figure 1, 400 students are the respondents of this research from 24 of the total 46 universities in LLDIKTI REGION III DKI Jakarta. The highest number of students who fill out research questionnaires comes from University T with a total of 137 students, or 34.25%, followed by University N with a total of 65 students, or 16.25%, and University M with a total of 43 students, or 11%. The remaining lowest percentage ranges from 0-2% or the number of students who fill out

**Table 1**  
**Operational Independent Variables**

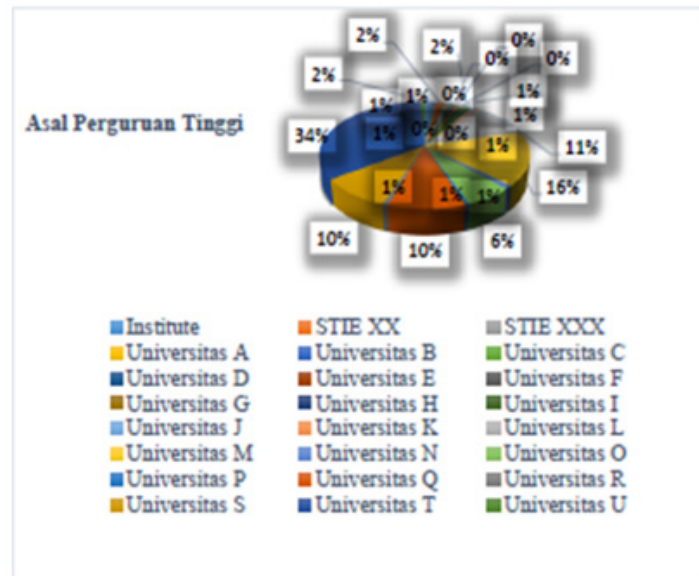
Variable	Sub-Operational Variable	Indicator	Reference
Fraud Diamond (X)	Pressure (X1)	Family economic and social conditions	Murdiansyah et al. (2017))
		Time Management	
		Bad habits	Lubis et al. (2021)
	Opportunity (X2)	Online learning process	Billy et al. (2019) in Sabli (2018)
		Exam question level	
		Lecturer feedback	Aditiawati (2018)
	Rationalization (X3)	Conditions of Signals and quota for online learning	Sadikin et al., (2020)
		Many students cheat	
		Maintaining good grades/ GPA	Billy et al. (2019) in Becker et al. (2006)
	Capability (X4)	Limited interaction between lecturers and students	Wiwit et al. (2018)
		Capability to misuse technology	Wiwit et al. (2018)
Procrastination	Procrastination (X5)	Discipline and Responsibility	Aziz (2015)

Source: Data Processed, 2021

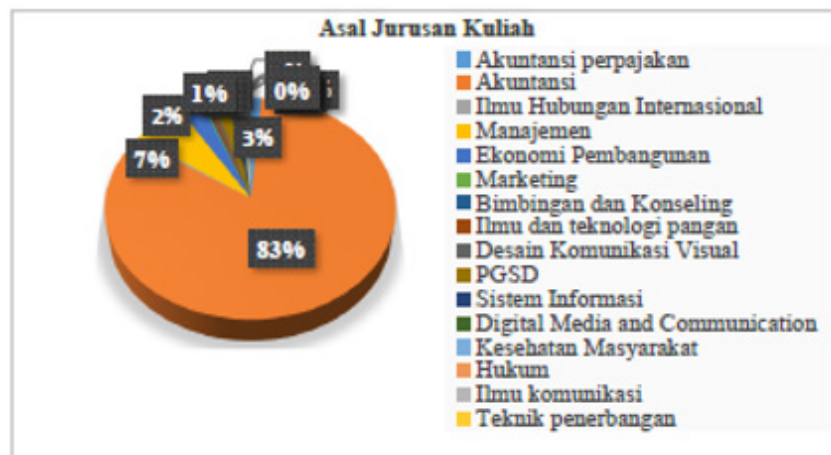
**Table 2**  
**Operational Dependent Variables**

Variable	Sub-Operational Variable	Indicator	Reference
Student Cheating Behavior (Y)	Student Cheating Behavior	Plagiarism	Darmayanti et al. (2020) in Aulia (2016)
		Misuse of Information Technology	Billy et al., (2019) in Becker et al. (2006)

Source: Data Processed, 2021



**Figure 1**  
**Profile of Respondents by University where they are from**  
 Source: Questionnaire Data, Processed (2021)



**Figure 2**  
**Profile of Respondents Based on Origin of Study Programs**  
 Source: Questionnaire Data, Processed (2021)

the questionnaire is 1-8 students from the remaining 21 universities listed in LLDIKTI Region III DKI Jakarta.

Figure 2 describes the origin of the study program that dominates in filling out the questionnaire. The first is students from the accounting study program with 332 respondents, or 83%. The second is students from the management study program with a total of 26 respondents, or 26%. Students from both study programs dominate in filling out the questionnaire because the Faculty of Economics and Business tends to have a large number of students.

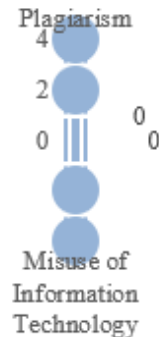
Based on the results presented in Figure 3 above, it indicates that 400 students from 24 universities agree with the fraud diamond indicators. Online learning during the Covid-19 pandemic has made students feel under pressure. The pressure comes from the family's economic and social conditions, poor time management, and bad habits of students so that they find it difficult to face exams. Students realize that there are many opportunities during the online learning process, such as lecturers not requiring students to turn on the camera during the teaching and learning process using zoom or google meet, lack of feedback



from lecturers for students, questions in exams are only limited to theoretical definitions, and case questions are already available on the internet. Rationalization emerges during online learning, such as the need for a strong signal and a large quota to access zoom or google meet, the number of other students cheating, and the limited interaction between students and lecturers. The reason students rationalize is that they want to get good grades and pass quickly. The capability of students to operate information technology leads them to the misuse of information technology in order to get good grades, even though this is done in a bad way, not based on their ability and understanding of the learning material. Based on the data, most of the students are capable of operating information technology well.

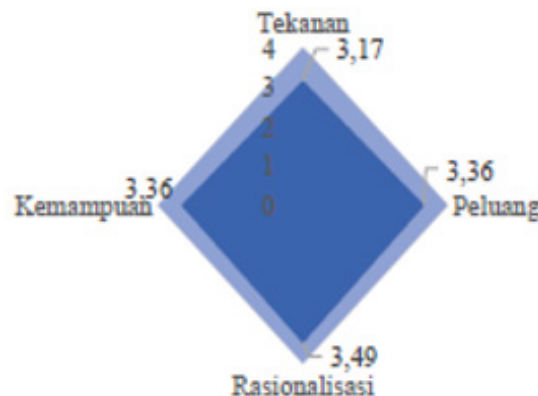
Based on students' responses to procrastination in Figure 4, it indicates that all students agree that they often delay in doing assignments due to lack of discipline and responsibility. Students prefer activities outside of lectures, such as watching movies or

drama series, playing online games, hanging out with friends, and opening social media, to doing their assignments. The level of discipline and responsibility of students has an impact on the lecture process they get.

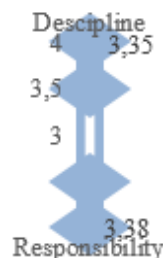


**Figure 5**  
**Descriptive Analysis of Student Cheating Behavior**

Source: Questionnaire Data, processed (2021)



**Figure 3**  
**Descriptive Analysis of Fraud Diamond**  
Source: Questionnaire Data, Processed (2021)



**Figure 4**  
**Descriptive Analysis of Procrastination**  
Source: Questionnaire Data, Processed (2021)

**Table 3**  
**Validity Test Results**

Variabel	Sub Variabel	Koefisien Korelasi	Korelasi	Hasil
Fraud Diamond	Tekanan (X1)	0,8778	High	Valid
	Peluang (X2)	0,9387	Very High	Valid
	Rasionalisasi (X3)	0,8922	High	Valid
	Kemampuan (X4)	0,8840	High	Valid
Prokrastinasi	Prokrastinasi (X5)	0,8804	High	Valid
Perilaku Kecurangan Mahasiswa	Perilaku Kecurangan Mahasiswa (Y)	0,8899	High	Valid

Source: Stata Version 14.2, Processed (2021)

**Table 4**  
**Reliability Test Results**

Variabel	Sub Variabel	Cronbach's Alpha	Korelasi	Hasil
Fraud Diamond	Tekanan (X1)	0,7775	High	Reliabel
	Peluang (X2)	0,7692	High	Reliabel
	Rasionalisasi (X3)	0,7723	High	Reliabel
	Kemampuan (X4)	0,8473	High	Reliabel
Prokrastinasi	Prokrastinasi (X5)	0,8019	High	Reliabel
Perilaku Kecurangan Mahasiswa	Perilaku Kecurangan Mahasiswa (Y)	0,7982	High	Reliabel

Source: Stata version 14.2, Processed (2021)

**Table 5**  
**Linear Regression Test**

Variabel	Sub Variabel	Koefisien	P>  t	T
Fraud Diamond (X) >> Perilaku Kecurangan Mahasiswa (Y)	Tekanan (X1)	0,1644619	0,006	2,77
	Peluang (X2)	0,1048763	0,019	2,35
	Rasionalisasi (X3)	0,6462229	0,000	9,31
	Kemampuan (X4)	0,2734249	0,000	5,28
Prokrastinasi (X) >> Perilaku Kecurangan Mahasiswa (Y)	Prokrastinasi (X5)	0,865569	0,002	3,07

Adjusted R-Squared = 0,7164

Source: Stata version 14.2, processed (2021)

Based on the results of students' responses to cheating behavior in Figure 5, it shows that students agree that they have committed cheating behavior during online learning during the Covid-19 pandemic. Cheating behavior committed by students includes plagiarism in completing assignments, scientific papers, and other projects without citing the original source. In addition, students also cheat by abusing information technology that supports learning process, such as the use of

social media, whatsapp, zoom or google meet in answering exam questions.

Table 3 presents data for each variable with the resulting values ranging from 0.8 to 0.9. It indicates that the variables tested, such as pressure, opportunity, rationalization, capability, procrastination and student cheating behavior, have a good level of validity in each construct. In addition, the resulting value provides evidence that each variable with the indicator has a good relationship.

Based on the data in Table 4, it shows that the Cronbach's alpha value of each variable tested, such as pressure, opportunity, rationalization, capability, procrastination, and student cheating behavior, ranges from 0.76 - 0.84 0.70, which means that each research variable has good reliability.

#### **The Effect of Pressure on Student Cheating Behavior**

Table 5 describes the fraud diamond components. Pressure has a coefficient value of 0.1644619, with a t-statistics value of 2.77, and a p-value of 0.006 or less than 0.05, which means that pressure, has a positive effect on student cheating behavior. The results of this study are in line with the results of research conducted by Amalia & Nurkhin (2019) involving people aged 65 years and over referred to an occupational therapy department for home assessment. There were 52 subjects with a recent hip fracture, 43 fallers (subjects with two or more falls in the past year but no hip fracture that pressure has a positive effect on increasing student cheating behavior. The results of this study are also strengthened by the results of research conducted by Murdiansyah et al. (2017) and; Zamzam et al. (2017) that pressure has a positive effect on student cheating behavior. In addition, the results of research conducted by Fadri & Khafid (2018) and Nurkhin & Fachrurrozie (2018) also show that pressure has a positive effect on academic cheating behavior. The results of this study also support the results of research conducted by Sihombing & Budiarta (2020) and Wahidin et al. (2020) that pressure has a positive effect on academic cheating. The greater the pressure that students have, the more they are motivated to commit fraudulent behavior. Pressure is a trigger for someone to commit fraud.

The Covid-19 pandemic has created pressure for students, one of which is the pressure on their family's economic and social conditions, which include a decrease in family income, family burdens related to education costs, termination of employment, and single parents. This pressure has an impact on the financial condition of students and their families, which in turn encourages them to get scholarships to reduce tuition costs. Pressure can come from the social conditions of the family.

Students will feel pressured when they see that their family members have good academic or career achievements. They also

feel pressured when their parents want their children to have a good career too. This has the potential to put pressure on students and encourage them to get good academic grades in any way. They do not want to lose to compete with other family members. Pressure can arise because students must follow the wishes of their families to get a good career. This puts pressure on students because sometimes the study program chosen by the family is not in accordance with their abilities so that they have difficulty in mastering the lecture material. Being the first or eldest child in the family is also a pressure because he has to be a good role model for his family, both in academics and careers.

Bad habits that students have can also be a pressure because the bad behavior will make it difficult for them to understand the learning material. These bad habits include being less active in reading lecture material, being less active in discussions and the learning process, not listening to the explanations of lecturers' material, and being lazy to read English literature. These bad habits can have a bad impact on students. They will have difficulty in understanding the material. Furthermore, pressure can stem from poor time management, for example, students prefer spending more time organizing to completing assignments and studying course material as exams approach. These conditions can increase the pressure experienced by students. The pressure will then trigger them to commit fraudulent behavior such as copying answers from the internet, asking other people for help with assignments, asking for the results of their friends' assignments, or looking for answers via Google or social media. Information technology is an effective means for students to complete coursework without reading and understanding the assignments given.

#### **The Effect of Opportunity on Student Cheating Behavior**

Based on the results in Table 5, the opportunity variable has a coefficient value of 0.1048763, with a t-statistics value of 2.35, and a p-value of 0.019 or less than 0.05, which means that opportunity has a positive effect on student cheating behavior. The results of this study are consistent with the results of research conducted by Murdiansyah et al. (2017) that opportunity has a positive influence on academic cheating behavior. These results support the results of research conducted by Amalia & Nurkhin

(2019) and Fransiska & Utami (2019) Olympus dan Toshiba merupakan jajaran perusahaan yang tersandung dalam kasus penipuan oleh pihak internal perusahaan yaitu oleh pimpinan perusahaan (Okezone, 2015 that there is a positive influence between opportunities and student cheating behavior. The results of research conducted by Angeline et al. (2020), Sihombing & Budiarta (2020), dan Wahidin et al. (2020) also strengthens the results of this study that opportunity has a positive influence on academic cheating behavior where the greater the opportunities students have, the greater their desire to cheat.

Opportunities arise due to weak academic control in the teaching and learning process. The online learning system creates opportunities for students, such as the absence of regulations that require students to turn on the camera during the learning process using zoom or google meet so that student activities are not monitored. They can do other activities and access the learning anywhere. Opportunities are also created because sometimes lecturers provide material according to power points, not inviting students to discuss. In addition, attendance checks they only carried out at the beginning or end of the lecture. This condition can make students not listen to lecture material properly and they enter zoom or google meet just to fill out the attendance list. Online learning provides opportunities for students to work on assignments and exams with other people and anywhere because answers to exams and assignments are only sent via email/siakad/google classroom. The relatively long deadlines for collecting assignments and exams also create opportunities for students to work together or copy friends' answers.

Opportunities for cheating behavior by students during online learning during the Covid-19 pandemic can also be due to the lecturers who are minimal in providing feedback. Lecturers who do not directly give value to the results of student assignments/presentations create opportunities for students to do unprofessional assignments or they just copy and paste from the internet. In addition, the exam questions given by lecturers to students are only theoretical definitions or case studies whose answers are available on the internet or have been given during practice questions. This provides a huge opportunity for students to cheat by finding answers on the internet or in notebooks. Exams conducted online make students tend to open their

cellphones, laptops, notebooks and material books, and they even exchange answers with classmates quickly. Other opportunities can occur in multiple-choice exam questions that are the same for all students or the exam questions given are the same as the previous year's exam questions. This allows students to work together with their friends on exams through sharing documents on social media, creating room zoom/google meet.

### **The Effect of Rationalization on Student Cheating Behavior**

Based on the results in Table 5, the rationalization variable has a coefficient value of 0.6462229, with a t-statistics value of 9.31, and a p-value of 0.000 or less than 0.05, which means that rationalization has a positive effect on student cheating behavior. The results of this study are in line with the results of researchers conducted by Darmayanti et al. (2020), Sihombing & Budiarta (2020), and Wahidin et al. (2020) that rationalization has a positive effect on academic cheating.

The results of this study also support the results of research conducted by Billy et al. (2019) and Fransiska & Utami (2019) Olympus dan Toshiba merupakan jajaran perusahaan yang tersandung dalam kasus penipuan oleh pihak internal perusahaan yaitu oleh pimpinan perusahaan (Okezone, 2015 that rationalization has a positive effect on student academic cheating behavior. The results of this study are also strengthened by the results of research conducted by Nurkhin & Fachrurrozie (2018) that there is a positive influence between rationalization and academic cheating behavior. The greater the rationalization made by students, the greater their desire to commit fraudulent behavior. According to the fraud diamond theory, rationalization arises due to the injustice perceived by students so that they are encouraged to commit fraudulent behavior.

The rationalization that emerges from students in the online learning process during the Covid-19 pandemic is that students need large quotas and good signals during online learning. The relatively extravagant quota for using zoom/google meet makes students uncomfortable during the learning session. Signals for online learning must also be good. A bad signal will make it difficult for students to absorb the material delivered by the lecturer. The quota provided by the government is also not evenly distributed and students have to buy a quota package for online learning. The



high cost of quotas for participating in the learning process encourages students to make rationalization by asking for permission not to attend full lectures because the quota has run out or the signal is bad. Rationalization by reason of quota limitations and is continued by turning off the camera during online learning makes lecturers unable to monitor student activities whether they are still following the learning material or have disappeared, sleeping or doing other activities.

In addition, students also rationalize cheating behavior when working on exam questions. They think that on average, their friends also cooperate when working on exam questions and they cover their behavior with each other. They think that it is reasonable to do so. Students rationalize their cheating behavior because they do not want to fail and repeat the same course. They also try to keep their grades or GPA consistent or better. So important is good grades for students that they justify the negative behavior, as long as the grades obtained are in accordance with their wishes. The rationalization for cheating behavior occurs because of the lack of interaction between lecturers and students during online learning. For example, lecturers only provide material by putting it on the application without giving an explanation to students, or in a virtual class there is only one-way communication where the lecturer only gives explanations to students without a question and answer session or discussion. Furthermore, the rationalization of students to commit fraud when doing assignments arises because the explanation of the material by the lecturer is not accompanied by case examples or sometimes the lecturer is too fast in explaining the material so it is difficult to understand. The impact is that when given assignments, students have a strong urge to commit fraud with the aim of completing assignments according to deadlines and getting good grades by exchanging answers or copy-pasting using information technology (social media and browsers). This action is not noticed by the lecturer because the participants of the online teaching and learning process are in different places (in their respective homes).

#### **The Effect of Capability on Student Cheating Behavior**

Based on the results in Table 5, the capability variable has a coefficient value of 0.2734249, with a t-statistics value of 5.28 and a p-value

of 0.000 or less than 0.05, which means that capability, has a positive effect on student cheating behavior. The results of this study are consistent with the results of research conducted by Murdiansyah et al. (2017) that capability has a positive effect on academic cheating behavior.

The results of this study are also strengthened by the results of research conducted by Amalia & Nurkhin (2019) involving people aged 65 years and over referred to an occupational therapy department for home assessment. There were 52 subjects with a recent hip fracture, 43 fallers (subjects with two or more falls in the past year but no hip fracture that capability has a positive effect on student cheating behavior. The results of research conducted by Fadri & Khafid (2018) also strengthen the results of this study that there is a positive influence between capability and academic cheating. The higher the capability a person has, the greater his desire to commit fraudulent behavior. Someone commits fraud because he feels capable of carrying out the action without being noticed by other parties (Wolfe & Hermanson, 2004). The ability of students to understand and utilize information technology, such as the use of zoom, google meet, google search, and social media, encourages them to use it as a means to cheat in order to get good grades and be able to pass courses without studying hard.

The ability of students to operate information technology can expedite their cheating behavior. This includes such as accessing YouTube to get tutorials to pass turnitin plagiarism without being noticed by other parties, opening many website pages during online exams, using tricks to turn on video cameras. Yet, their laptop/mobile phone camera is covered with a camera cover, using a cellphone to find answers on the internet, and using social media to discuss and send answers to each other with a group of friends.

#### **The Effect of Procrastination on Student Cheating Behavior**

Based on the results in Table 5, the procrastination variable has a coefficient value of 0.865569, with a t-statistic value of 3.07, and a p-value of 0.002 or less than 0.05, which means that procrastination has a positive effect on student cheating behavior. The results of this study are in line with the results of research conducted by Prasetyo & Handayani (2019) student's procrastination

has a positive effect on academic cheating. The results of this study are also strengthened by the results of research conducted by Arifah et al. (2018) involving people aged 65 years and over referred to an occupational therapy department for home assessment. There were 52 subjects with a recent hip fracture, 43 fallers (subjects with two or more falls in the past year but no hip fracture) that there is a positive influence between procrastination and academic cheating. Procrastination is a form of indiscipline and lack of sense of responsibility towards obligations. Students who are not disciplined in their studies will be encouraged to cheat when facing exams. The more often they delay the completion of their tasks, the greater their desire to commit fraud. When the deadline for submitting assignments is approaching, they will rush to complete the assignments. Worried that the results of their assignments will get bad grades, they cheat by looking for answers from the internet or copying their friends' assignments.

During the Covid-19 pandemic, student assignments were submitted online. Assignments were given to students through Google Classroom or the college academic system with a deadline determined by the lecturer. The longer the deadline for completing the task given by the lecturer, the higher the level of delay made by students in completing the task is. Several factors cause students to delay completing their assignments such as students not understanding the task material so they wait for answers from their friends or they prefer surfing on social media to completing their assignments.

## 5. CONCLUSION, IMPLICATION, SUGGESTION, AND LIMITATION

Based on the results of data testing, the researchers conclude that the fraud diamond and procrastination indicators affect the students to cheat during online learning during the Covid-19 pandemic. Pressure such as family economic factors during the Covid-19 pandemic is one of the triggers for students to commit fraud. The online learning system, where lecturers and students are in different and distant places, provides a great opportunity for students to commit fraud. The limited quota, the desire to get high grades, and the limited interaction between lecturers and students during the online learning process can raise rationalizations for students

in committing fraud. Students' proficiency in operating information technology is used as a means to commit fraud in doing assignments without having to read and understand the assignments given. Delays in completing assignments, as a factor of procrastination, can also trigger students to commit fraud during the online learning process.

Universities should have regulations regarding the implementation of effective online learning that can minimize cheating behavior. During the online learning process using zoom or google meet, lecturers should require students to turn on video cameras so that it is easier for them to monitor the students' seriousness to learn the learning material. Interactive learning during the online learning system, such as randomly calling students' names to ask questions or inviting students to discuss, can make the learning atmosphere more interesting and students don't feel bored. It is recommended that the exam questions be structured in such a way, like case analysis, that the answers cannot be found on the internet. The multiple choice exam questions are expected to be different for all students in order to avoid collaboration or exchange of answers between students. Universities must be firm and bold in giving sanctions to students who are proven to have cheated. This is intended to provide a deterrent effect and prevent students from repeating their cheating behavior.

This research is only limited to detecting student cheating behavior in online learning during the Covid-19 pandemic using the fraud diamond dimensions and procrastination. This study has not seen whether there is a difference in the level of cheating behavior in students between the offline learning system and the online learning system. For further research, researchers should add other variables other than the variables used in this study, such as the ability of students to manage stress and the application of a higher education quality assurance system, to minimize cheating behavior.

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