ANALYSIS OF THE INFLUENCE OF FACILITIES, LEARNING ENVIRONMENT, AND LOCATION ON THE DECISION TO CHOOSE THE FACULTY OF MEDICINE, UNIVERSITAS CIPUTRA

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*Abstract-***This study aims to determine the effect of facilities, learning environment, and location on the decision to choose the Faculty of Medicine, University of Ciputra. The population in this study were 300xx medical students at Ciputra University. While the sample used amounted to 104 respondents with the sampling method is simple random sampling Based on the results of the analysis carried out using the multiple linear regression method, it can be seen that the learning environment factors and location factors have a significant effect on the decision to choose medical students in choosing the Faculty of Medicine, Ciputra University.**

*Keywords***:** learning environment, location of the decision to choose

1. Introduction

Education is part of the needs of society which is a tool to advance a nation, especially higher education. The number of universities in Indonesia, especially the city of Surabaya, causes prospective students to have more alternative choices, as well as a challenge for Ciputra University, especially the Faculty of Medicine against its competitors. Some competing private universities that have medical faculties in Surabaya include Universitas Wijaya Kusuma Surabaya, Universitas Hang Tuah, Universitas Widya Mandala, Universitas Nahdlatul Ulama Surabaya, and Universitas Surabaya. Currently, private universities continue to increase excellence to attract prospective students ranging from achievements, physical appearance, to their facilities. Based on data on the number of student admissions of the medical faculty of Ciputra University in 2016-2021, there was a decrease in student admissions in 2019 which was only 37 students. Therefore, researchers conducted a pre-survey to see the factors that influence medical students to choose the medical faculty of Ciputra University, so that three biggest factors were found, namely 77% of students were interested in the complete facilities of the university, 15% chose because of the close distance, and 8% chose because of the learning environment fun. Based on this, this study focuses on analyzing the influence of facilities, learning environment, and location on student decisions in choosing the medical faculty of Ciputra University.

2. Literature Review

2.1 Previous Research

Research by Minarso & Machmuddah (2010) found that individual characteristics, marketing unity, environment, and psychology simultaneously have a significant influence on students' decisions to choose faculty. Research by Chew *et al*., (2010) found that the factors that influence the choice to determine university are excellent service, social environment, learning atmosphere, infrastructure, and quality of teachers. Research by Hsu & Yuan-fang (2013) found that factors that influence parents to choose a school are management factors, moral values, discipline, reputation, educational environment, effectiveness, and school specialization. Research by Tompodung (2017) found that students have a positive perception of the learning environment. Research by Febriani & Sarino (2017) found that learning methods and learning facilities have a positive and significant influence on student achievement.

2.2 Theoretical Foundation

2.2.1 Choosing Decision

The decision to choose refers to the purchase decision which, according to Kotler & Armstrong (201:6), namely "consumer buying behavior is the buying behavior of individual consumers, either directly or indirectly involved in buying goods and services for personal consumption".

2.2.2 Facilities

According to Dahari &; Ya (2011) defines school facilities as an entire physical environment that can be seen from the school. According to Arikunto (2009), facilities can be interpreted as everything that can facilitate and facilitate the implementation of a business.

2.2.3 Learning Environment

Environment is showing where an individual is influenced towards patterns of behavior that are general. Environmental aspects include aspects of culture, social class, reference groups, and family.

2.2.4 Location

According to Atmanegara *et al.,* (2019) location is where the company operates or where the company carries out activities to produce goods and services that are concerned with its economic aspect.
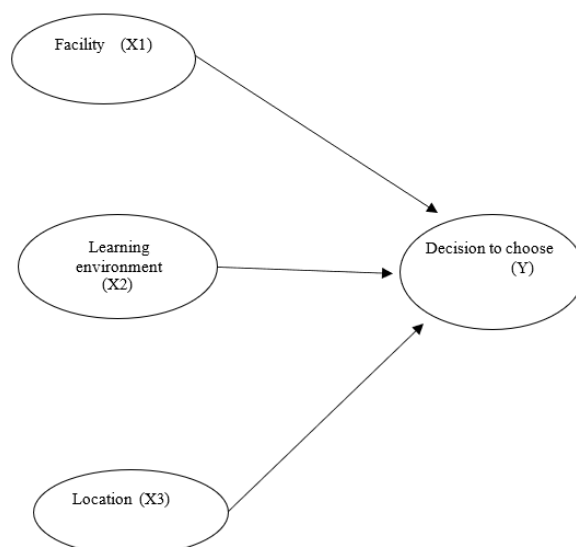
3. Research Framework

3.1 Analysis Model

Figure 3.1 Thinking Outline
Source: Data processed by Researchers (2022)

3.2 Hypothesis

H₁: Facility factors have a significant positive influence on the decision to choose the Faculty of Medicine, Ciputra University

H₂: Learning environment factors have a significant positive effect on the decision to choose the Faculty of Medicine, Ciputra University

H₃: Location factors have a significant positive influence on the decision to choose the Faculty of Medicine, Ciputra University

4. Research Methods

4.1 Types of Research, Samples, and Data Collection

This study used a quantitative approach. The study population is medical students of Ciputra University for the academic year 2016 – 2021 which amounted to 301 students. The research sample was determined using the Slovin formula so that 76 respondents were obtained. The sample was taken using a simple random sampling technique. Data collection used questionnaire dissemination and measured with a Likert scale of 1-5.

4.2 Operational Variables and Definitions

Table 4.1 Operational Definitions

Variable	Conceptual Definition	Indicator	Questionnaire question items	Source
Facilities (X1)	Learning facilities are essentially everything that is used to facilitate the learning process. (Arikunto, 2009)	1. The condition of the building that is suitable for use 2. Comfortable classroom quality 3. Library is easily accessible 4. Availability of learning tools and media in the laboratory	1. Faculty of Medicine, Ciputra University has a suitable building 2. Faculty of Medicine Universitas Ciputra has air-conditioned and comfortable classrooms. 3. Faculty of Medicine Universitas Ciputra has a complete library and can be accessed from anywhere. 4. Faculty of Medicine, Ciputra University has learning tools and media in the laboratory	Aunurahman (2010)

		5. Availability of laboratory equipment for research	5. Faculty of Medicine, Ciputra University has laboratory equipment for research	
Learning environment (X2)	The learning environment is one of the important factors in determining the quality and success of the medical education curriculum. Tompodung (2017)	1. Learning process 2. Teacher 3. Academic achievement 4. Learning atmosphere social life	1. Faculty of Medicine Universitas Ciputra has a good learning process Faculty of Medicine Universitas Ciputra has competent lecturers 2. Faculty of Medicine Universitas Ciputra has students who excel in academics 3. Faculty of Medicine, Ciputra University has a positive learning atmosphere that encourages learning 4. Faculty of Medicine Universitas Ciputra has a positive campus environment that encourages learning	Tompodung (2017)
Location (X3)	Location is where the company operates or where the company carries out activities to produce goods and services that are concerned with its economic aspect (Atmanegara, 2019).	1. Strategic location 2. Location close to supporting facilities 3. Location has easy access	1. Faculty of Medicine, Ciputra University is in a strategic location. 2. Faculty of Medicine, Ciputra University is close to supporting facilities. 3. Faculty of Medicine, Ciputra University has easy access	Atmanegara, (2019)
Choosing Decision (Y)	Decision is a process of approach to solving a problem that includes problem recognition, information search, alternative research, which causes buying decisions and post-purchase behavior passed by consumers (Fahrudin and Yulianti 2015).	1. Product selection 2. Brand selection 3. Reseller selection 4. Time of purchase 5. Number of purchases 6. Payment methods	1. In my opinion, studying at the Faculty of Medicine, Ciputra University is to fulfill my future needs. 2. In my opinion, before I chose, I gathered information regarding the costs and facilities of several existing Medical Faculties. 3. I have a variety of medical school alternatives at my disposal. 4. In my opinion, from the various medical faculties that exist, I would prefer the Faculty of Medicine, Ciputra University 5. I feel that studying at the Faculty of Medicine, Ciputra University is the right choice 6. I chose to study at the Faculty of Medicine, Ciputra University because of my own will	Fahrudin and Yulianti (2015), Zamroni (2016), Amalia (2017)

The study used tests of validity, reliability, classical assumptions, and multiple linear regression analysis consisting of analysis of coefficients of determination, simultaneous coefficients, and partial coefficients.

5. Results and Discussion

5.1 Analysis

5.1.1 Test Validity and Reliability

1. Validity Test

Table 5.1 Results of the Questionnaire Validity Test on Facilities (X_1)

Variable	Question Item	Value Corrected Item	Significance Pearson Correlation	Ket.
HHFasilitas (X_1)	Faculty of Medicine, Ciputra University has a suitable building	0,694	0,000	Valid
	Faculty of Medicine Universitas Ciputra has air-conditioned and comfortable classrooms	0,643	0,000	
	Faculty of Medicine Universitas Ciputra has a complete library and can be accessed from anywhere.	0,872	0,000	
	Faculty of Medicine, Ciputra University has learning tools and media in the laboratory	0,902	0,000	
	Faculty of Medicine, Ciputra University has learning tools and media that can be used well	0,896	0,000	

Source: Appendix 1.3

Facility variable (X_1) has a *Pearson Correlation* significance value of less than 0.05. So, it can be concluded that every instrument or statement used is declared valid.

Table 5.2 Questionnaire Validity Test Results on Teaching Quality (X_2)

Variable	Question Item	Nilai Corrected Item	Significance of Pearson Correlation	Ket.
Learning Environment (X_2)	Faculty of Medicine Universitas Ciputra has a good learning process	0,873	0,000	Valid
	Faculty of Medicine, Ciputra University has competent lecturers	0,720	0,000	
	Faculty of Medicine Universitas Ciputra has students who excel in academics	0,819	0,000	
	Faculty of Medicine, Ciputra University has a positive learning atmosphere that encourages learning	0,905	0,000	
	Faculty of Medicine Universitas Ciputra has a positive campus environment that encourages learning	0,861	0,000	

Source: Appendix 1.3

The learning environment variable (X_2) has a *Pearson Correlation* significance value of less than 0.05. So, it can be concluded that every instrument or statement used is declared valid.

Table 5.3 Results of the Questionnaire Validity Test on Location (X_3)

Variable	Question Item	Nilai Corrected Item	Significance of Pearson Correlation	Ket.
Location (X_3)	Faculty of Medicine, Ciputra University is in a strategic location.	0,877	0,000	Valid
	Faculty of Medicine, Ciputra University is close to supporting facilities.	0,853	0,000	
	Faculty of Medicine, Ciputra University has easy access	0,869	0,000	

Source: Appendix 1.3

Location variable (X_3) has a *Pearson Correlation* significance value of less than 0.05. So, it can be concluded that every instrument or statement used is declared valid.

Table 5.4 Questionnaire Validity Test Results on Voting Decision (Y)

Variable	Question Item	Nilai Corrected Item	Significance of Pearson Correlation	Ket.
Choosing Decision (Y)	In my opinion, studying at the Faculty of Medicine, Ciputra University is to fulfill my future needs.	0,776	0,000	Valid
	In my opinion, before I chose, I gathered information regarding the costs and facilities of several existing Medical Faculties.	0,751	0,000	
	I have a variety of medical school alternatives at my disposal.	0,544	0,000	
	In my opinion, from the various medical faculties that exist, I would prefer the Faculty of Medicine, Ciputra University	0,767	0,000	
	I feel that studying at the Faculty of Medicine, Ciputra University is the right choice	0,842	0,000	
	I chose to study at the Faculty of Medicine, Ciputra University because of my own will	0,756	0,000	

Source: Appendix 1.3

Variable decision making choose (Y) has a *Pearson Correlation* significance value of less than 0.05. So, it can be concluded that every instrument or statement used can be declared valid.

2. Reliability Test

Table 5.5 Reliability Test Results

Variable	Cronbach Alpha Value	Information
Facilities	0,863	Reliable
Learning Environment	0,893	Reliable
Location	0,832	Reliable
Choosing Decision	0,817	Reliable

Source: Appendix 1.3

The results showed that each of the variables studied in this study had a *Cronbach alpha* value of more than 0.6. The results of this test explain that the instruments of each variable analyzed in this study have been consistent.

5.1.2 Characteristics of Respondents

The age of the majority of respondents was 21-23 years old at 44 or 42.3%. The majority gender is female at 73%. The distribution of the largest batch year was in 2016 at 23%.

5.1.3 Statistical Description of Research Variables

The variable indicator of facilities with the highest average is the first question of 4.87 which shows most students strongly agree. The variable indicator of the learning environment with the highest average is the second question of 4.69 which shows most students strongly agree. The location variable indicator with the highest average was the second question of 4.23 which showed most students strongly agreed. The highest average voting decision variable indicator was the first question of 4.5, which showed most students strongly agreed.

5.1.4 Classical Assumption Test

1. Normality Test

Table 5.6 Data Normality Test Results Using Kolmogorov-Smirnov

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		89
Normal Parameters[a,b]	Mean	.0280091
	Std. Deviation	.30892607
Most Extreme Differences	Absolute	.168
	Positive	.074
	Negative	-.168
Test Statistic		.168
Asymp. Sig. (2-tailed)		.000[c]
Monte Carlo Sig. (2-tailed)	Sig.	.056[d]
99% Confidence Interval	Lower Bound	.000
	Upper Bound	.119

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

d. Based on 89 sampled tables with starting seed 303130861.

Source: Appendix 1.3

The results show that the significance value of 0.000 is smaller than 0.05, so it can be implied that the residuals in this study are normally distributed.

2. Multicollinearity Test

Table 5.7 Multicollinearity Test Results

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.	Collinearity Statistics Tolerance	Collinearity Statistics VIF
1	(Constant)	.641	.411		1.559	.122		
	FASILITAS	.101	.119	.083	.848	.399	.498	2.008
	LOKASI	.205	.058	.289	3.552	.001	.722	1.385
	LINGKUNGAN	.529	.121	.468	4.377	.000	.418	2.395

a. Dependent Variable: KEPUTUSAN

Source: Appendix 1.3

The results show that each variable has a VIF value that is less than 10. So it can be concluded that in this study there was no multicollinearity.

3. Heteroskedasticity Test

Table 5.8 Test Results of Heteroskedasticity Assumptions with Glejser

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.	Collinearity Statistics Tolerance	Collinearity Statistics VIF
1	(Constant)	.641	.411		1.559	.122		
	FASILITAS	.101	.119	.083	.848	.399	.498	2.008
	LOKASI	.205	.058	.289	3.552	.001	.722	1.385
	LINGKUNGAN	.529	.121	.468	4.377	.000	.418	2.395

a. Dependent Variable: KEPUTUSAN

Source: Appendix 1.3

Based on the output, it is known that the significance (sig.) for the facility variables is 0.399, location 0.001 and learning environment 0.000. Because the significance value of the two variables is above 0.05, there are no symptoms of heteroskedastic.

4. **Linearity Test**

Table 5.9 Results of Linearity Test by Looking at the Deviation from Linearity Value

	df	F	Significance
Choosing Decision * Facilities	1	42,820	0,000
Choosing Decision * Learning Environment	1	84,089	0,000
Choosing Decision * Location	1	41,462	0,000

Source: Appendix 1.3

The results showed that the significance value of each independent variable relationship to the dependent variable in the study had a value of less than 0.05. These results explain that there is a linear relationship between predictor variables and response variables.

5.1.5 Test the hypothesis

Table 5.10 Multiple Linear Regression Test Results

Variable	Coefficient	Std. Error	Std. Coeff B	t-stastistic	Itself.	Result
Constant	0,641	0,411		1,559	0,122	
Facilities (X1)	0,101	0,119	0,083	0,848	0,399	Rejected
Learning Environment(X2)	0,205	0,058	0,289	3,552	0,001	Accepted
Location (X3)	0,529	0,121	0,468	4,377	0,000	Accepted
R squared	0,524					
Adjusted R squared	0,509					
F Statistic	36,652					
Prob (F Statistic)	0,000					

Source: Appendix 1.3

In the test results, the regression coefficient X1 obtained a positive value of 0.101. The regression coefficient X2 is positive 0.205. The regression coefficient X3 is positive 0.529. So that the regression equation is formed as follows:

$$Y = 0.641 + 0.101X1 + 0.205X2 + 0.529X3.$$

5.1.6 Coefficient of Determination Analysis

In Table 5.10 we know that the *value of R squared* shows 0.524. These results explain that the variation of independent variables used in this study, consisting of facilities, learning environment, and location has an influence of 5 to 2.4 percent on the decision to choose the Faculty of Medicine, Ciputra University. While the remaining 4, 7.6 percent, the rest is explained by variations in other variables that were not studied in this study.

5.1.7 Simultaneous Coefficient Analysis (F Test)

Based on the results of the analysis that has been carried out in Table 5.10 it is known that the significance value of F is 0.000 < 0.05. So, it can be concluded that simultaneously facilities, learning environment, and location simultaneously have a significant influence on the decision of medical students to choose the Faculty of Medicine, Ciputra University.

5.1.8 Partial Coefficient Analysis (Test t)

Based on the results of the analysis that has been carried out in Table 5.10 it is known that:

1. **Facilities**

At the facility, it is known that the significance value shown is 0.399 > 0.05. This result explains that partially the facility does not have a positive and significant effect on the decision of medical students to choose the Faculty of Medicine, Ciputra University.

2. **Learning Environment**

In the learning environment, it is known that the significance value shown is 0.000 < 0.05. These results explain that partially the applied learning environment has a positive and significant influence on the decision of medical students in choosing the Faculty of Medicine, Ciputra University.

3. **Location**

At the location, it is known that the significance value shown is 0.001 < 0.05. This result explains that partially the location where the University is located has a positive and significant influence on the decision of medical students in choosing the Faculty of Medicine, Ciputra University.

5.2 Discussion

5.2.1 The Influence of Facilities on the Decision to Choose the Faculty of Medicine, Ciputra University

The results of the coefficient analysis partially found that the facilities owned by the Faculty of Medicine, University of Ciputra did not significantly affect the decision to choose the Faculty of Medicine, University of Ciputra. These results may occur because the respondents in this study are medical students who have been accepted and know the Faculty of Medicine, Ciputra University which prioritizes the process of medical education at Ciputra University in the fields of the latest medical science (quality medical knowledge & skills) and the development of social attitudes and good communication skills (soft skills).

5.2.2 The Influence of the Learning Environment on the Decision to Choose the Faculty of Medicine, Ciputra University

In the results of the study, it was explained that the learning environment has a positive and significant influence on the decision of medical students in choosing the Faculty of Medicine, Ciputra University. The Faculty of Medicine, Ciputra University has a small class, namely a tutorial class, students are given problems according to the learning objectives and are encouraged to discuss solving the given problems. In addition, other learning methods carried out are expert lectures, as well as experienced lecturers as facilitators, and supporting infrastructure such as the availability of computer-based and skill-based competency test laboratories (OSCE).

5.2.3 The Influence of Location on the Decision to Choose the Faculty of Medicine, Ciputra University

In the results of the study, it was explained that location has a positive and significant influence on the decision of medical students in choosing the Faculty of Medicine, Ciputra University. This result explains that the better the location of the University, the higher the potential for student absorption. A good location is one that is easily accessible, has good visibility, non-congested traffic and a conducive environment.

5.3 Managerial Implications

Table 5. 11 Managerial Implications of Facilities of Faculty of Medicine, University of Ciputra

Before Research	After Research

Lack of availability of research laboratory equipment	The addition of tools in the research laboratory, so as not to borrow tools in other labs

Table 5. 12 Managerial Implications of Learning Environments

Before Research	After Research
The learning process carried out by the teaching lecturers is good	There needs to be an increase in the number of lecturers who are competent in their fields.
Student academic performance is considered quite good	There is a need for curriculum evaluation through periodic evaluation of the learning environment, this aims to correct deficiencies in the curriculum so as to produce an optimal learning environment to achieve maximum academic achievement

Table 5. 13 Managerial Implications of Location

Before Research	After Research
The location is quite strategic	- Hokky supermarket and Ciputra Hospital will be built. - There needs to be a bus / shuttle car to go to Ciputra University

6. Conclusion and Advice

6.1 Conclusion

1. The facility factor does not have a significant positive effect on the decision to choose the Faculty of Medicine, Ciputra University.

2. Learning environment factors have a significant positive influence on the decision to choose the Faculty of Medicine, Ciputra University.

3. The location factor has a significant positive influence on the decision to choose the Faculty of Medicine, Ciputra University.

6.2 Suggestion

6.2.1 Advice for the Faculty of Medicine

1. The addition of research laboratory equipment, so that system independence occurs

2. There needs to be an increase in the number of lecturers who are competent in their fields

3. There is a need for curriculum evaluation through evaluation of the learning environment, this aims to correct deficiencies in the curriculum so as to produce an optimal learning environment to achieve maximum academic achievement.

4. There needs to be a shuttle bus / car to go to Ciputra University

6.2.2 Suggestions for future research

1. For the next study, it can analyze more deeply about the facilities at the Faculty of Medicine, which in this study has not explained the results in accordance with the expectations of researchers.

2. For future research, it can explore other factors as well so that it can complement this study, where there are still 49.5 percent of factors that have not been explained in this study that may also affect the decision making of medical students, such as price, references, and image of the institution because these factors are often questioned when medical students choose medical schools and these factors refer to research from Anggraini Puspitasari (2018).

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