

What Predicts Students' Academic Performance

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Abstract: The performance of a higher education institution was one of the crucial factors determining success in producing quality graduates. Academic achievement obtained by students was considered the success of a student and the learning system at the institution. The academic quality was also inseparable from the background of the student itself. Besides, the design and climate of teaching and learning are created in the educational environment. The purpose of this study was to describe students' academic performance and the factors that influence the improvement in academic performance of undergraduate students majoring in Psychology at Universitas Airlangga. This research used a quantitative approach with a descriptive survey research design. Based on the results of research conducted, it concluded that student performance, study program performance, and university performance, predict student's academic performance, both simultaneously and partially for undergraduate students at the Faculty of Psychology, Universitas Airlangga.

1 INTRODUCTION

The quality of human resources is one of the keys to the success of a country. In Indonesia, awareness of improving the quality of human resources is increasing in facing the Industrial Revolution 4.0. They are supported by other factors such as the economy, welfare, social, and others. One of the ways to improve the quality of human resources is through higher education (Olufemi, Adediran, & Oyediran, 2018:44). Increasing awareness of Indonesia's people's importance of improving the quality of human resources through education creates new conditions among high schools in Indonesia. This condition describes students in all corners of the country competing to achieve a target of satisfying academic results (Al-Zoubi & Younes, 2015:2262;

Guhn, Emerson, & Gouzouasis, 2019: 3). In line with this, Ogweno, Kathuri, & Obara (2014:2) Conditions describe increasingly fierce competition for the quality of human resources in the world of work.

According to the Law of the Republic of Indonesia, Number 2 of 1989, Article 16, paragraph (1), Higher Education is a continuation of secondary education held to prepare students to become members of the community who have academic and professional abilities that can apply, develop and create knowledge, technology, and art (Siming *et al.*, 2015:114; Alsalem *et al.*, 2017:3043). Higher education participants are from now on referred to as students (Alsalem *et al.*, 2017:3044). According to Tani *et al.* (2019:2), at the higher education level, students must be active in the teaching and learning process through existing media, such as libraries,

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journals, and the internet. In addition, almost all assignments in higher education generally require students to look for the literature and develop their mindset for practical task completion (Zotorvie, 2017:291). Furthermore, academic requirements in higher education are not just following lectures. Still, other provisions include the percentage of attendance in lessons, completion of assignments, and active participation in other academic activities (Gbollie & Keamu, 2017:3).

Ergen & Kanadli (2017:56) stated that research on student academic performance is an essential topic in education. Performance is a measure of how consistent and good the function of a product is (Al-Zoubi & Younes, 2015:2266). Santrock in Bragdon & Dowler (2016:17) stated that the quality of student performance is indicated by numbers, letters, and other signs that are the results of translating descriptive assessment information where the translation of descriptive assessment information into numbers, notes, and other symbols is called grading. Student performance can be arranged by comparing it with the performance of other students or by setting performance standards in advance (Ergen & Kanadli, 2017:66). Empirical academic performance can be portrayed from three dimensions: the dimensions of the student performance, the dimensions of the study program performance, and the dimensions of the university performance (Kapinga & Amani, 2016:80). Student performance dimensions include aspects of tangibles (educational infrastructure), reliability (reliability of lecturers and academic staff), responsiveness (responsivity), assurance (treatment of students), and empathy (understanding of student interests). The dimensions of the study program performance include aspects of curriculum, learning and academic atmosphere, students and graduation, human resources, educational facilities and infrastructure, research, community service, and cooperation, management systems. The dimensions of the university performance include aspects of student and graduate standards, curriculum standards, learning and academic atmosphere, research and community service, and quality assurance. For this reason, this study sets targets on these three dimensions covering all aspects covered therein. The activity describes and analyzes the external and internal factors that contribute significantly to academic performance in education administration.

Finding factors that influence student academic performance is essential for universities, lecturers, and in some cases, for students themselves (Gull & Shehzad, 2015:247; Bragdon & Dowler, 2016:14). Cimermanova (2018:220) stated that these factors

would significantly affect university academic policy, curriculum improvement, assessment of lecturers' performance, and modification of the way lecturers teach. Damavandi *et al.* (2011:188) stated that research on student academic performance receives excellent attention from stakeholders in education. The aim is to find out the factors that need improvement in improving student academic performance to improve the quality of learning. In addition, Kapinga & Amani (2016:79-80) explained that the increasing number of students in specific fields of study must be balanced with research that can explain students' academic performance. This is important to do to improve the quality of lecturers and make improvements to the educational process in the future. Research conducted by Li, Chen, & Duanmu (2010:390), Kpolovie, Joe, & Okoto (2014:75), Goulao (2014:239), and Ellore, Niranjana, & Brown (2014:166) stated that performance academic before entering university is the most significant influential variable.

Through good academic performance, it is expected that students can get exemplary academic achievements. Student academic achievement manifests student learning success, showing tenacity and seriousness in learning (Abdi *et al.*, 2016:866). The definition of learning achievement, among others, stated by Winkel in Alsalem *et al.* (2017:3045), says that learning achievement is a testament to a student's learning or ability to carry out his learning activities by the weight achieved. Meanwhile, according to Anderton, Evans, & Chivers (2016:257), achievement or learning outcomes (achievement) realize a person's potential skills or capacities.

Mastery of learning outcomes can be seen from their behavior, both in knowledge, thinking skills, and motor skills. Ellore, Niranjana & Brown (2014:172) defined learning achievement as perfection achieved by thinking, feeling, and doing. Thus, learning achievement is said to be perfect if it fulfills three aspects, namely: cognitive (knowledge), affective (attitude), and psychomotor (skill). On the other hand, the achievement is less satisfying if someone has not met the targets in these three criteria (Okay, *et al.*, 2016:60).

Learning achievement, which is the result of measuring students includes cognitive aspects (knowledge), affective (attitude), and psychomotor (skills), can be known after an evaluation called achievement test (achievement test) (Siming *et al.*, 2015:116). Therefore, based on some of the above understanding, it can be concluded that learning achievement is the level of ability possessed by

someone in digesting information obtained in the teaching and learning process where the learning achievement of a student is often presented in the form of symbols in the form of numbers, letters or sentences that tell the results achieved by each student in a certain period.

According to Abid *et al.* (2016: 863), both factors within the student (internal) and factors outside the student (external) indicate many factors that affect academic achievement. Internal factors, among others: intelligence, self-concept, and so forth. Logically, the things that can encourage students are very influential on students in various aspects within students. Multiple factors influence this. The existence of these factors will undoubtedly create several new factors. This unique factor will also affect student academic outcomes. In this case, the authors chose three variables in this study, namely academic performance, academic integration, and social integration (Gull & Shehzard, 2015:250). Students who have studied at a university or college will have academic performance or study achievement.

The general assumption regarding academic integration is the level of adaptation of students in carrying out their studies with the educational way of life in universities (Kapinga & Amani, 2016: 82). Students studying, in general, will experience a transition between two different social, academic conditions and life patterns. In this phase, students will be faced with adjustments to the new environment at colleges or universities. Bragdon & Dowler (2016:18) defined academic integration as the level of students being able to adapt to the sustainability of the education that they are going through.

Olufemi, Adediran & Oyediran (2018:46) shared four academic integration concepts: academic, social, personal emotional adjustment, and attachment adjustments. Siming *et al.* (2015:116) state that students who have a sense of comfort will be different compared to students who do not have a sense of comfort logically. The purpose of convenience, in this case, is what is felt by students in academic and social life while studying in college. Students will handle these conditions if students' environment and living conditions can positively support students in their studies (Tani *et al.*, 2019:6).

Students who have positive and supportive conditions and environments are more focused on student goals in pursuing studies in colleges or universities (Zotorvie, 2017:295). Conversely, students who have positive and supportive conditions and environments will be less focused on achieving their study goals at colleges or universities

(Damavandi *et al.*, 2011:189). So students who do not have this environment during their studies are required to adapt to an environment that is not by the level of comfort (Tani *et al.*, 2019:7).

There are also external factors that affect student academic achievement, including family, social status, academic environment, and so on). This research is a development of Ahmad & Safaria (2013:27) which examined student academic achievement. The situation in Indonesia has many differences with the countries where the analysis is carried out, both in terms of geographical, economic, social, and cultural, and education, which is very interesting to study. Geographically, Indonesia is an archipelagic country, different from Ireland, Singapore, or the United Kingdom, a country on an island or continent. As an archipelagic country, making the same educational standards evenly distributed for all islands is more challenging. As a developing country, economic conditions in Indonesia are also different from developed countries such as the UK and Singapore, where high social inequalities still occur indicated by differences in social strata background. This course will also make a difference in the motivation and readiness of students in studying at tertiary institutions (Gbollie & Keamu, 2017:5).

The performance of a higher education institution is one of the crucial factors determining success in producing quality graduates (Anderton, Evans & Chivers, 2016: 254). Therefore, the performance appraisal must be done thoroughly on all elements contributing to the ongoing academic activities. The assessment carried out must be guided by the value standards set by internal and external parties. One of the assessment standards for tertiary institutions as an educational institution is the performance of students, which includes their inputs, processes, and outputs. The most important thing to consider when the learning process takes place is supervision of incoming students, improvement of student ability, achievement achieved by students, the ratio of the number of students graduating to total students, and graduate competencies (Okay, *et al.*, 2016:62). The results of these achievements certainly affect students' accuracy in completing the time of the study, and the graduates produced will have complete trust from their users.

Academic planning should be done well to achieve maximum academic performance. According to Ergen & Kanadli (2017:60), academic performance is based on two things, including academic and social integration. Motivation and enthusiasm for learning can influence the increase or decrease in academic

performance that can change one's self-confidence to decrease the motivation that should arise from themselves (Gbollie & Keamu, 2017:10). Academic achievement obtained by students is considered the success of a student and the learning system at the institution. The academic quality is also inseparable from the student's background besides the design and climate of teaching and learning created in the educational environment. A good GPA (Grade Point Average) certainly makes the study period target achieved with good quality. On the other hand, a timely study period encourages a reduction in student buildup in the final semester, resulting in poor ratios and quality. Academic achievement is usually measured through the GPA. The success in obtaining a high GPA is generally influenced by many factors: the student's study hours.

This study aims to describe students' academic performance and what factors influence the improvement in academic performance of students majoring in Psychology at Universitas Airlangga. The benefit of this research is as a form of knowledge and scientific contribution regarding psychology and human resource development related to students' academic performance.

Based on the background of the problem, then are there any research problem formulations that can be submitted as follows:

1. How is the students' academic performance of majoring in Psychology at Universitas Airlangga?
2. What factors influence improving the students' academic performance of majoring in Psychology at Universitas Airlangga?

The hypothesis consists of:

- H1: Student performance influences student's academic performance.
- H2: Study program performance influences student's academic performance.
- H3: University performance influences student's academic performance.

2 METHOD

This study uses a quantitative approach (positivism) with a descriptive survey research design to explain the factors that influence students' academic performance. Based on the data categories used, this study is a cross-sectional study, while based on the time of data collection, this study is a one-shot

method. The sampling method in this research is nonprobability sampling with convenience sampling. The sample's selection of the analysis unit was obtained after considering the suitability and limitations of data collection in this study, namely undergraduate students of semesters 5 and 7 in the academic year 2018-2019 majoring in Psychology, Faculty of Psychology, Universitas Airlangga. The reason is that most students in semester 5 and semester 7 have taken courses that represent the field of Introduction to Psychology and other compulsory courses relating to primary Psychological scholarship. In this study, researchers used the Achievement Index (IP) as an indicator of student academic performance in the S1 Department of Psychology at Airlangga University, and 127 students were obtained.

Research data in the form of primary data and secondary data. Primary data in the form of questionnaire data is distributed to students as research objects online via a google form. Questionnaire questions in this study are related to three dimensions of academic performance and its aspects, with 60 questions. Students can provide answers using a Likert scale with a range of 1 - 5.

The secondary data is student achievement index data obtained from the academic administration database Universitas Airlangga. In the test instrument used is the validity test and reliability test. The study uses the classic assumption test and multiple linear regression analysis in this study by describing the framework of the research line of thinking as follow:

3 RESULT

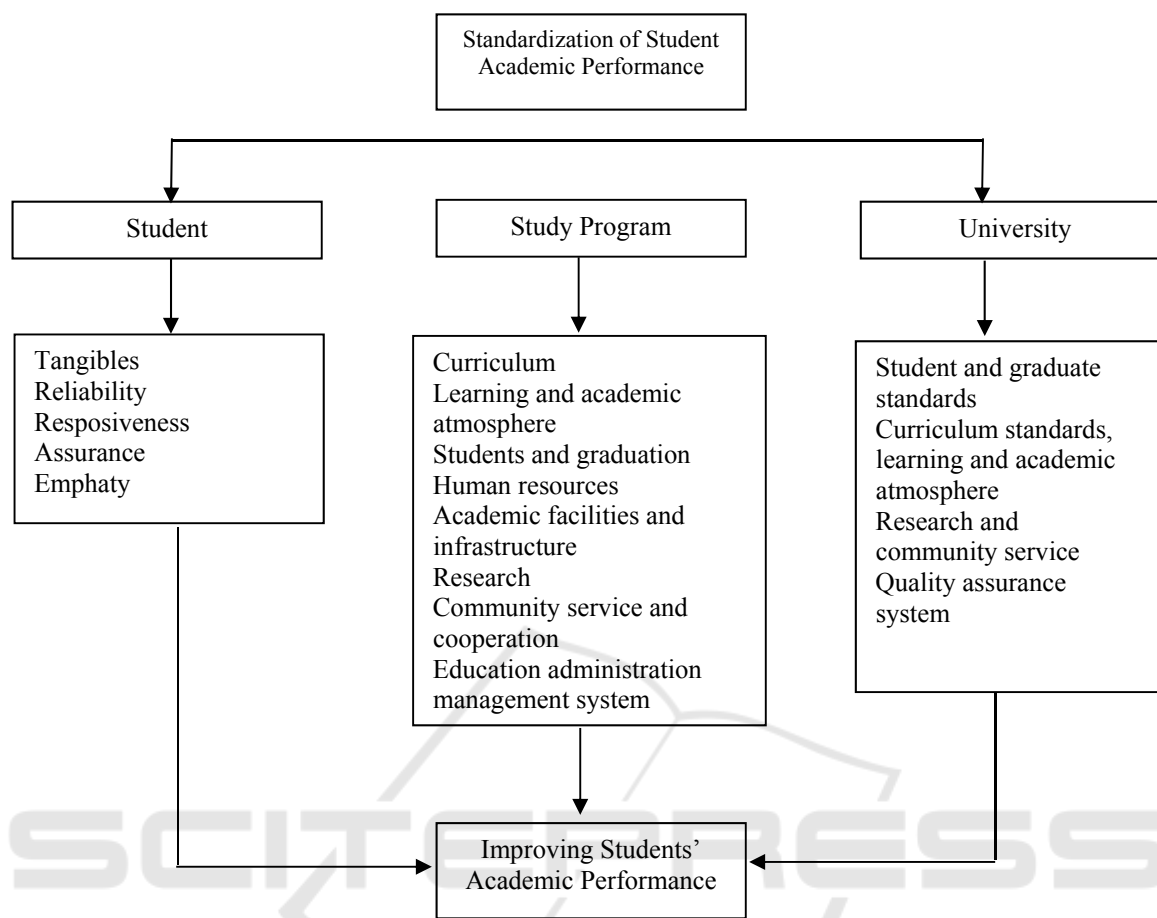
3.1 Research Subject Description

In this study data analysis will use descriptive statistical techniques and multiple linear regression models. In an effort to process data in order to draw a conclusion on the research, it uses the help of computer applications through the SPSS 24 for Windows program.

3.2 Instrumental Testing

3.2.1 Validity Testing

Validity can be defined as the extent to which evidence and theory can support the interpretation of the test scores used (American Educational Research Association, 2014). Validity is divided into two, namely research validity and measurement validity.



(Source: Primary Data, 2019)

Figure 1: Thinking Flow Framework.

Research validity is defined as the degree of truth of a conclusion drawn from a study, the degree of truth is influenced and assessed based on the research method used, the nature of the population from which the sample is derived and the representativeness of the research sample (Last, 2001, as cited in Murti, 2011). Measurement validity can be interpreted as the extent to which a measuring instrument (instrument) can measure what it purports to measure (Last, 2001, as cited in Murti, 2011). In other words, a measuring instrument (instrument) can be said to be valid if it can measure and support the interpretation of test scores in accordance with the purpose of the test. The validation process relates to the process of gathering relevant evidence with the aim of providing a solid scientific basis for the interpretation of the proposed score (American Educational Research Association, 2014).

The validity of the measurement consists of 4 aspects, namely: (1) Content validity; (2) Advance validity; (3) construct validity; (4) Criterion validity. In this study, the validity used is criterion validity.

Criterion validity focuses on the suitability of the measurement results of a measuring instrument (instrument) with an ideal measuring instrument (standard), in the context of the variables studied (Murti, 2011). Research with the validity of this criterion is usually carried out by comparing the measuring instruments owned with the ideal measuring instrument (standard) qualitatively, so that the measuring instrument has high criterion validity if it is strongly correlated with the ideal measuring instrument (standard).

To see the validity of the measuring instrument, it is necessary to test the validity. The criterion validity test was carried out through a significance test, namely by comparing the value of r count with r table for degree of freedom (df) = number of constructs - 2. If r count (for each item r can be seen in the corrected item - total correlation column) > r table and the value of r is positive, then the item or question is said to be valid. The following are the results of the validity test of this study:

Table 1: The Result of Validity Test.

| Variable | Item | <i>Pearson Correlation</i> | r_{tabel} | Information |
|--|------------------|----------------------------|--------------------|-------------|
| Student Performance (X_1) | X _{1.1} | 0,990 | 0,300 | Valid |
| | X _{1.2} | 0,845 | 0,300 | Valid |
| | X _{1.3} | 0,881 | 0,300 | Valid |
| | X _{1.4} | 0,991 | 0,300 | Valid |
| | X _{1.5} | 0,993 | 0,300 | Valid |
| Study program performance (X_2) | X _{2.1} | 0,919 | 0,300 | Valid |
| | X _{2.2} | 0,364 | 0,300 | Valid |
| | X _{2.3} | 0,872 | 0,300 | Valid |
| | X _{2.4} | 0,917 | 0,300 | Valid |
| | X _{2.5} | 0,787 | 0,300 | Valid |
| | X _{2.6} | 0,701 | 0,300 | Valid |
| | X _{2.7} | 0,946 | 0,300 | Valid |
| | X _{2.8} | 0,948 | 0,300 | Valid |
| University Performance (X_3) | X _{3.1} | 0,859 | 0,300 | Valid |
| | X _{3.2} | 0,905 | 0,300 | Valid |
| | X _{3.3} | 0,879 | 0,300 | Valid |
| | X _{3.4} | 0,940 | 0,300 | Valid |
| Students' Academic Performance (Y) | Y _{1.1} | 0,859 | 0,300 | Valid |
| | Y _{1.2} | 0,905 | 0,300 | Valid |
| | Y _{1.3} | 0,879 | 0,300 | Valid |
| | Y _{1.4} | 0,940 | 0,300 | Valid |
| | Y _{1.5} | 0,872 | 0,300 | Valid |

(Source: Primary Data, 2019)

Based on Table 1, it can be seen that all items that measure the independent variables namely work discipline, motivation and compensation as well as the dependent variable namely employee performance, the entire statement items are declared valid. This happens because the whole statement item produces a calculated r value greater than 0.300.

3.2.2 Reliability Testing

Reliability is the overall consistency of a measure. The results obtained will be high; if each subject's consistency has consistent results. If the consistency of the subject is low, the reliability results obtained will also be below (American Educational Research Association, 2014). There are two aspects of measuring instrument reliability: (1) Internal consistency, which shows that each question item is correlated with the scores of all items. (2) Stability which shows the stability of the measuring instrument

when used at different times (test-retest reliability), the exact measuring instrument on two separate occasions (intra-observer reliability), and various measuring instruments on the same occasion (inter-observer reliability) (Murti, 2011).

Because this instrument will describe the variables in the research subject, a test is carried out to show internal consistency, indicating that the items on the questionnaire measure different aspects of the same variable instead of measuring various aspects of other irrelevant variables. In this study, we use Cronbach's alpha. The higher Cronbach's alpha, the better (consistent) the measuring instrument. According to Streiner and Norman (2000), the minimum cutoff of Cronbach's alpha for a measuring instrument is 0.60. However, several authors use a cutoff of 0.70 to classify consistency internal as adequate and 0.80 as good (Murti, 2011). The following are the results of the validity test of this study:

Table 2: The Result of Reliability Test.

| Variable | Cronbach Alpha | Information |
|------------------------|----------------|-------------|
| Student | 0,968 | Reliabel |
| Study Program | 0,905 | Reliabel |
| University | 0,944 | Reliabel |
| Academics' Performance | 0,961 | Reliabel |

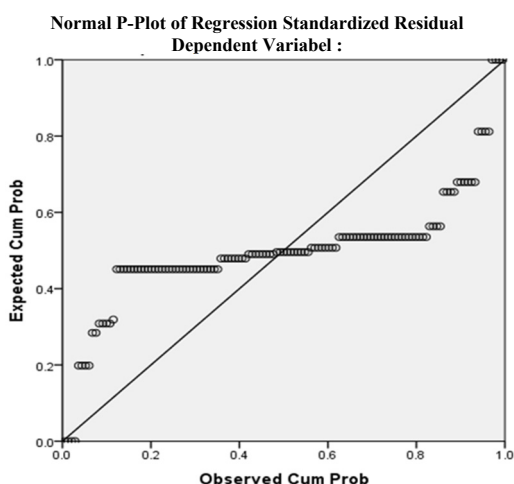
(Source: Primary Data, 2019)

Table 2 shows that the statements in this questionnaire are reliable because they have a Cronbach alpha value greater than 0.6. This shows that each item in the four variables as listed in the table has very good consistency.

3.3 Classic Assumption Testing

3.3.1 Normality Testing

Normality test aims to test whether in the regression model, the dependent variable, the independent variable, or both have a normal distribution or not. A good regression model is to have a normal data distribution or statistical data spread on the diagonal axis of the normal distribution graph. Normality testing in this study is used by looking at the normal probability plot which compares the cumulative distribution of the actual data with the cumulative distribution of normal data. The following are the results of the data normality test using the P-Plot graph:



(Source: Primary Data, 2019)

Figure 2: The Result of Normality Test Using P-Plot Graphic.

From Figure 2 it can be seen that the data distribution has followed a diagonal line between 0 (zero) with the meeting of the Y axis (Expected Cum. Prob.) With the X axis (Observed Cum. Prob.). This shows that the data in this study were normally distributed. Thus, it can be concluded that the regression model has fulfilled the normality assumption.

3.3.2 Multicollinearity Testing

Multicollinearity Test aims to test the regression model found a correlation between independent variables. A good regression model should not occur correlation between independent variables. If the independent variables are correlated with each other, then these variables are not orthogonal. Orthogonal variables are independent variables whose correlation value between independent variables is equal to zero. In this study the technique to detect the presence or absence of multicollinearity in the regression model is to look at the value of Variance Inflation Factor (VIF), and the tolerance value. If the tolerance value approaches 1, and the VIF value around the number 1 and not more than 10, it can be concluded that there is no multicollinearity between the independent variables in the regression model. The following are the results of the multicollinearity test.

Based on Table 3 it can be seen that the tolerance value approaches the number 1 and the value of the variance inflation factor (VIF) is lower than 10 for each variable, so this means that in the regression equation there is no correlation between independent or multicollinearity independent variables, so that all independent variables (X) can be used in research.

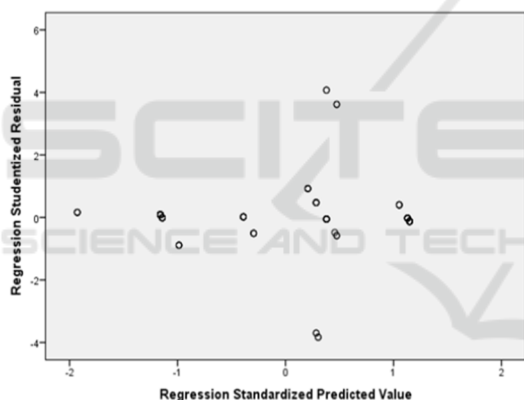
Table 3: The Result of Multicollinearity Test.

| Variable | Tolerance VIF | Collinearity Statistics | Information |
|---------------------------|---------------|-------------------------|-----------------------|
| Student Performance | 0,53 | 8,735 | Non-Multicollinearity |
| Study Program Performance | 0,70 | 4,301 | Non-Multicollinearity |
| University Performance | 0,70 | 4,309 | Non-Multicollinearity |

(Source: Primary Data, 2019)

3.3.3 Heteroscedasticity Testing

The Heteroscedasticity test aims to test whether in the regression model there is an inequality of variance from one observation to another. The way to detect it is by looking at the presence or absence of certain patterns in the Scatterplot graph between SRESID and ZPRED, where the Y axis is the predicted Y, and the x axis is the residual (predictive Y - actually Y) that has been standardized. The following are the results of the heteroscedasticity test:



(Source: Primary Data, 2019)

Figure 3: Scatterplot Dependent Variable: Academic's Performance in the Heteroscedasticity Test.

Based on Figure 3 shows that the data is spread above and below the number 0 (zero) on the Y axis and there is no clear pattern on the spread of the data. This means there is no heteroscedasticity in the regression equation model, so that the regression model is feasible to predict academic performance based on the variables that influence it, namely students, programs of study, and universities. After testing the classic assumptions mentioned above, it can be concluded that the linear regression equation model in this study, is free from these basic (classical) assumptions, so that decision making through the F test and t test to be carried out in this study will not be biased or appropriate with research purposes.

3.4 Multiply Linear Regression Analysis

Regression equation in this study is to determine how much influence the independent or independent variables are student performance, programs of study performance, university performance, and students' academic performance. The mathematical formula of multiple regression used in this study is as follows:

$$Y = a + b_1 X_1 + b_2 X_2 + b_3 X_3 + e$$

Information:

- Y: The dependent variable is the increase in students' academic Performance
- A: Constants
- $b_1, b_2,$ and b_3 : Regression coefficients
- X_1 : Variable of student performance
- X_2 : Variable of study program performance
- X_3 : Variable of university performance
- E: Error disturbances

The following are the results of multiple linear regression analysis tests:

$$Y = -0,056 + 0,891X_1 + 0,102X_2 + 0,024X_3 + e$$

The results of the multiple linear regression equation above provide an understanding that:

- 1) The constant value of -0.056, meaning that if the student performance, study program performance and university performance do not exist or equal to 0, then the students' academic performance will be 0.056.
- 2) β_1 (student performance regression coefficient value) is positive, meaning that if student performance is increasing, the resulting students' academic performance is also increasing.

Table 4: Multiple Linear Regression Test.

| Model | Unstandardized Coefficient | | Standardized Coefficient | T | Sig. | 95,0% Confidence Interval for B | |
|---------------------------|----------------------------|------------|--------------------------|--------|------|---------------------------------|-------------|
| | B | Std. Error | Beta | | | Lower Bound | Upper Bound |
| | (Constant) | -.056 | .068 | | | | -.820 |
| Student Performance | .891 | .037 | .875 | 23.828 | .000 | .817 | .965 |
| Study program Performance | .102 | .047 | .101 | 2.147 | .034 | .008 | .196 |
| University Performance | .024 | .056 | .021 | .431 | .667 | -.087 | .136 |

A Dependent Variable : Academic Performance
(Source: Primary Data, 2019)

Table 5: The Result of ANOVA^b.

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|-------|------------|----------------|----|-------------|---------|--------------------|
| 1 | Regression | 72,807 | 3 | 24,269 | 3043,27 | 0,000 ^a |
| | Residual | 0,766 | 96 | 0,008 | | |
| | Total | 73,573 | 99 | | | |

(Source: Primary Data, 2019)

- 3) β_2 (regression coefficient value of the study program performance) is positive, meaning that if the study program performance is increasing, then the students' academic performance is also increasing.
- 4) β_3 (the value of the university performance regression coefficient) is positive, meaning that if the university performance increases, then students' academic performance is also increasing.

3.4.1 Model Feasibility (Goodness of Fit Testing)

Goodness of Fit test is used to test the feasibility of the model used in research. Goodness of Fit model that can be seen from the value of the F test (analysis of variance / ANOVA). The F test basically shows whether all independent variables entered in the model can be declared feasible if the probability value is < 0.05 or declared inappropriate if the probability value > 0.05 . The following are the results of the Goodness of Fit testing:

From the table above it can be seen that the F test value with a significance level of 0,000 (under (0.05) of 3043.27. If the probability value is less than 0.05 then the regression model is feasible to be used to predict the simultaneous influence of the independent variable. Based on the level of significance, it is concluded that H_0 is rejected and H_a is accepted, which means that the independent variables

consisting of student performance, study program performance, and university performance together have a significant effect on the dependent variable, namely students' academic performance.

3.5 Multiply Determination Coefficient Analysis (R^2)

The coefficient of multiple determination (R^2) is the amount of influence the independent variable gives to the dependent variable. With R^2 , it can predict and see how much the effect of the independent variable contributes simultaneously to the dependent variable. The value of R^2 ranges from 0 to 1. The smaller value of R^2 , the weaker the influence of the independent variable on the dependent variable. On the other hand, if the result of R^2 is getting closer to number 1, the effect given by the independent variable is getting stronger. If in the research, the results of the R^2 value are negative, it indicates that there is no influence of the independent variable on the dependent variable ("*Makna Koefisien Determinasi (R Square) dalam Analisis Regresi linear Berganda*," 2019). As explained as follows:

Table 6: Determination Coefficient (R^2).

| Model | R Square |
|-------|----------|
| 1 | .990 |

(Source: Primary Data, 2019)

Based on the results above, the value of the coefficient of determination or R^2 is 0.990. These results indicate that the student performance, study program performance, and university performance, simultaneously affect student academic performance by 99%. While the remaining percentage, which is 1%, is influenced by other variables not examined. In addition, because the value of R^2 is close to one, the influence of the independent variable is powerful.

3.6 The Hypothesis Testing (t Test)

The hypothesis testing uses the t test to determine the overall effect of the independent variable on the dependent variable by comparing the significant t value with a 95% real level. This study uses a probability of 95% significance level or $\alpha = 0.05$ so that it can be seen the effect of individual independent variables with the criteria if t is significant $< \alpha = 0.05$, it can be said that the independent variable has a significant effect on the dependent variable. If t is significant $> \alpha = 0.05$, it can be said that the independent variable has no significant effect on the dependent variable. The following are the results of testing the hypothesis in this study:

Table 7: The Result of t Test.

| Model | t | Sig. |
|---------------|--------|-------|
| Student | 15.576 | 0.000 |
| Study Program | 3,855 | 0.000 |
| University | 3,822 | 0.000 |

(Source: Primary Data, 2019)

Based on the multiple regression test calculations listed in the above table, the test results provide an understanding that:

1. The effect of student performance on student's academic performance. Based on the results of the table 7 calculation, the regression coefficient value is positive and the significance value for student is $\alpha = 0,000 < 0.05$, indicating that student performance has a significant effect on student academic performance. So H_1 which states the alleged influence of student performance on student's academic performance is accepted.
2. The effect of the study program performance on student's academic performance. The results of the calculation of table 7, the regression coefficient value is positive and the significance value for the study program

performance is $\alpha = 0,000 < 0.05$ indicating that the study program performance has a significant effect on students' academic performance. So H_2 which states the alleged influence of the study program performance on students' academic performance is accepted.

3. The effect of university performance on student's academic performance. The results of the calculation of table 7, the regression coefficient value is positive and the significance value for university performance is $\alpha = 0,000 < 0.05$ indicating that university performance has a significant influence on students' academic performance. So H_3 which states the alleged influence of university performance on student's academic performance is accepted.

3.7 Discussion

Based on the results, the factors that influence the academic performance of undergraduate students majoring in psychology at Universitas Airlangga are the student's performance, study program's performance, and the university's performance, and even those three factors have a significant effect. So three hypotheses that mentioned above are accepted.

In a previous study, we found in Rimawati's (2013) research that quality service of an academic's employee as human resources of study program performance's dimensions has positive and significant result with student satisfaction that is 50,6% influence 8% more than other variables. Service quality variables here must meet several variables, including tangible, indicated by the completeness of facilities and employee tidiness; reliability, the ability of workers to provide services appropriately and minimize errors; responsiveness, indicated by the desire of workers to provide services to students quickly and professionally; assurance, including courtesy and, the experience provided by workers makes student can comfortable, so they are able to believe in workers; and lastly is empathy which means employees' attention and understanding of student needs. The variables that must be measured from the workers and got good results from students measured the same things in the dimensions of student performance. So the following research conducted six years ago has the same results and supports this research, that student performance affects student's academic performance significantly.

Santoso and Ekawaty (2018) also support the above and this research, where universities took the

actions in showing empathy and paying attention to student comfort affect student satisfaction. The place where this research was conducted, namely the international class, Faculty of Economics and Business, Singaperbangsa University, Karawang, did the following for student performance, namely:

- Providing counseling guidance for students who have difficulties in the learning process,
- Providing scholarships as a form of appreciation,
- Creating a learning atmosphere that is conducive to learning, comfortable,
- Ensuring the completeness of learning infrastructure.

In addition to facilities, the faculty also ensures that the lecturers have good competence because lecturers' competence increases student satisfaction by 84%. If the competence of lecturers is accompanied by academic performance, it gives a simultaneous effect of 79.83% of student satisfaction. The things done by the faculty and proven to be related to student satisfaction will also play a role in student academic performance because the things that are done are included in the dimensions of student performance, study program performance, and university performance.

Besides that, Loscalzo et al (2018) found that students with perfectionism have a better academic performance because they spent time studying hours and hours because they strive for a better GPA, therefore enhance their academic achievement. So, the length of time sacrificed by students to learn as one of the student's performance affects student' academic performance.

However, this study still has limitations due to the small number of respondents participating. Therefore, in further research, researchers are expected to expand the reach to increase the number of respondents. In addition, further research can also consider other factors that have been stated in previous studies, such as the influence of many problems that students face. For example, Semb, Glick, and Spencer (1979) said that lousy learning habits, low motivation, and low academic scores might cause students to fail and, worse, drop out. Those are the problems regarding academic performance. Also, some factors affect academic performance. According to Ma et al (2018), a high parental expectation positively influences students' academic performance. High parental expectations affect academic performance through students' engagement and motivation to achieve academic

success. Cavilla (2017) found that self-reflection influences academic performances. Students who look at what they have been studying and perceive their effort will learn the metacognitive strategy and enhance their academic performance to about 40%. Marcenaro-Gutierrez et al (2017) found that gender differences also affect academic performance. Female students tend to learn more about the subjects on their own. Meanwhile, male students depend on the initial studying skill, meaning they usually do not study repeatedly. Cultural factors also take part in influencing academic performance. Santrock (2011) stated if a teacher learns about the ethical background of his/her student, takes a closer look to his/her student's family, will know about the student's interest, family characteristics, and parents' occupation. The teacher will also learn about language student uses outside the class so the teacher can help his/her student outside the class. This will help boost students' academic performance.

4 CONCLUSION

Based on the results of research conducted, it can be concluded that student performance, study program performance, and university performance, predicts a student's academic performance, both simultaneously and partially for undergraduate students at the Faculty of Psychology, Universitas Airlangga. One of the assessment standards for universities as an educational institution is students' academic performance, which includes input, process and output. The most important thing to consider when the learning process takes place is supervision of incoming students, improvement of student ability, achievements of students, ratio of the number of students graduating to total students and graduate competencies.

The results of these achievements certainly affect the accuracy of students in completing the time of study, and the graduates produced will have full trust from their users. The recommendations we propose in this study include: 1.) The Faculty of Psychology, Universitas Airlangga needs to encourage an increase in the number of lecturers with Doctor / PhD qualifications so that the impact on improving lecture services can increase; 2.) The Faculty of Psychology, Universitas Airlangga needs to develop instruments to monitor and evaluate the academic services of lecturers to students.

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