

Analysis of Factors that Influence Student Satisfaction Level on Lecturer Performance

Siti Fatimah Sihotang¹, Dian Yulis Wulandari²

¹Universitas Potensi Utama, Indonesia

²Universitas Panca Budi, Indonesia

Abstract: Performance evaluation of lecturers at a university becomes very important because it is the basis for performance-based remuneration and rewards, as well as improving services to student satisfaction. Lecturers are required to be professional to be able to provide a good understanding and motivation to learn to students in accordance with their functions in higher education. Student motivation is influenced by several factors. The main factor that really affects is the lecturer, because in the teaching and learning process of students who are dealing directly with the lecturer. This, of course, greatly affects the level of student satisfaction with lecturer performance. So, this study tries to find the relationship between student satisfaction variables and lecturer performance. The purpose of this study is to examine and analyze pedagogical competence factors, professional competence, personality competence, and social competence that are used as a measurement tool for the level of student satisfaction with lecturer performance. The research method used is the structural equation model (SEM) analysis tool to test hypotheses. The estimation method used from the conversion of flowcharts into structural equations is the maximum likelihood method. The results showed that the social competence variable was the variable that most influenced the lecturer performance. This is because from the structural equation model formed, it is known that the social competence variable has the largest estimated coefficient value, which is 0.398.

Keywords: Student Satisfaction, Lecturer Performance, Competence

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I. Introduction

Human resources are one of the most important assets for the country to increase its ability in economic growth and development. The more qualified human resources will facilitate the process of development and growth of a country. Thus, education is important in order to produce competent human resources and able to compete and be effective for all people and organizations. The better and better quality of education a person has, the greater the chance to become a competent individual. Students are prospective nation's successors who are expected to be able to contribute to the growth and development of a country. But the facts on the ground, many factors that prevent a person to achieve success. One of them is when students do not have the motivation and interest in the course or do not have the confidence that they are able to solve problems, which in this case the role of lecturers and competencies possessed by each lecturer is certainly very influential to overcome the above problems [1].

Lecturers are one of the essential components in a system of providing education in tertiary institutions. The main task of the lecturer is as an educator, the lecturer has the duty and responsibility to educate students to become individuals who have abilities and skills that are useful for their lives and are needed to enter the workforce, through their ability to teach various sciences and skills, in addition to responsibilities in the form of attitudes and right and wrong behavior in acting through the nature of his devotion as a moral human being [2].

According to [3], a student in participating in learning activities in tertiary institutions will not be separated from the role of lecturers and teaching and learning processes carried out and each lecturer is demanded that professionals be able to provide a good understanding and motivation to learn towards students in accordance with their functions in higher education. Student motivation is influenced by several factors. The main factor that really affects is the lecturer, because in the teaching and learning process of students who are dealing directly with the lecturer.

As mandated in Law No. 14 of 2005 concerning Teachers and Lecturers, there are four competencies that must be possessed as a lecturer in carrying out the duties of higher education. The four competencies include pedagogic, professional, personal and social. These four competencies are indicators that show the performance of lecturers as educators and lecturers. The competence of lecturers determines the quality of the implementation of Higher Education Tridharma as shown in the professional activities of lecturers. Lecturers

who are competent to carry out their duties professionally are lecturers who have pedagogic, professional, personal, and social competencies needed in the practice of education, research, and community service.

Related to this, from the four competencies that students can provide an assessment of the performance of their lecturers, whether the indicators that exist in each of these competencies provide satisfaction to students in teaching and learning activities in the classroom. Therefore, the formulation of the problem in this study is the pedagogical competence, professional competence, personality competence, and social competence factors used as a measurement tool for student satisfaction levels positive and significant impact on lecturer performance?

This study aims to examine and analyze pedagogical competence factors, professional competencies, personality competencies, and social competencies, which are used as a measurement tool for student satisfaction levels, towards the performance of lecturers. In this case, the objectives are more specific to find out which factors are the most dominant. Furthermore, the expected benefits of this study, namely for students will provide ease of information about the existence of a measuring tool on the performance of lecturers in teaching and learning activities so that it can be used to measure student satisfaction levels. The results of this study are also expected to be used as a reference for Management Information Systems that can be applied by the leaders of the Main Potential University of Medan and as a reference for other university leaders in assessing lecturer performance, which is beneficial for the progress and development of the university in the future of course.

II. Research Methods

Judging by the type of data, this research is classified as quantitative research. Quantitative research is a scientific approach to decision making that departs from the data, then processed and manipulated into valuable information for the scientific community. Subjects of this study were 365 samples of even semester students in T.A. 2017/2018 The University of Potential Main Medanyang is divided into 15 courses in the morning, afternoon and evening classes. The sampling technique used in this study uses a simple random sampling technique, namely sampling is done randomly in each department and class. To collect primary data, researchers rely on questionnaire techniques. In this case, selected students fill out the questionnaire distributed directly by researchers in the classroom shortly before the lecturer teaching out of the class. In this study, the data analysis method used was Structural Equation Modeling (SEM) using the application program AMD version 22 [4].

The series of data processing includes testing the measurement model, including validity and reliability, while the structural model testing includes the significance of the influence of independent or exogenous variables on the dependent or endogenous variables. In other words, SEM is also closely related to factor analysis and regression. SEM can perform a technique of analyzing the relationship between its indicators and its latent variables, which in this case relates to factor analysis. While the relationship between SEM and regression or path analysis, namely the role of looking for relationships between latent variables, the latent variable is one with the other latent variables. So, related to its factor analysis, each indicator with its latent variable will have one latent score. Then if there are two variable with each latent score, then the latent score is represented by each variable that will be associated with regression.

The estimation technique used is the Maximum Likelihood Estimation. The structural equation model estimation is done by full model analysis to see the suitability of the model and the causality relationship built in the tested model.

Testing the Validity and Reliability Measurement Model

Validity and reliability testing is done with the aim of testing whether the indicator variables used are really significant in terms of reflecting construct or latent variables (convergent validity). Some of the measurements to be tested are as follows:

1. Standardized Loading Factor (SLF) or Validity Test

Another name for the Standardized Loading Factor (SLF) measure is the validity test used to test whether the latent construct is unidimensional or whether the construct indicators are valid. What needs to be seen is whether the indicator is statistically significant. Some researchers use the convergent validity criteria > 0.50 so that the indicator is said to be valid. In other words, convergent validity shows how well the indicators are a factor in measuring these factors [5].

2. Size of Construct Reliability (CR) or Reliability Test

Reliability is a measure of internal consistency of construct indicators, using two methods, namely the recommended acceptance for construct reliability is a minimum of 0.70 and 0.50 for extracted variance. Thus, the reliability test shows the extent to which the measuring instrument can provide relatively the same results if the measurements were taken again on the same subject. In this study, the reliability test is carried out through construct reliability [6]. The size of Construct Reliability (CR) is also a determining indicator that shows whether or not convergent validity is good. Furthermore, [7] states that the value of $CR \geq 0.7$ includes good

reliability, while CR values between 0.6 and 0.7 are acceptable reliability, provided the indicator variables show good validity. CR size is calculated by the following formula [7]:

$$CR = \frac{(\sum_{i=1}^n SLF_i)^2}{(\sum_{i=1}^n SLF_i)^2 + (\sum_{i=1}^n e_i)} \quad (1)$$

3. Average Variance Extracted Size (AVE)

Average Variance Extracted (AVE) is a complement of Construct Reliability (CR) and is intended to measure the amount of variance of indicators that can be extracted by its factors. The limit for the Average Variance Extracted is. Known AVE values ≥ 0.5 indicate adequate convergence [7].

Average Variance Extracted (AVE) size can be calculated using the following formula:

$$AVE = \frac{\sum_{i=1}^n SLF_i^2}{\sum_{i=1}^n SLF_i^2 + \sum_{i=1}^n e_i} \quad (2)$$

III. Results and Discussion

After testing the hypothesis and analyzing the path using AMOS software version 22 using the Maximum Likelihood estimation method on the full structural equation model, the results of the estimation of the full latent variable model in Figure 1:

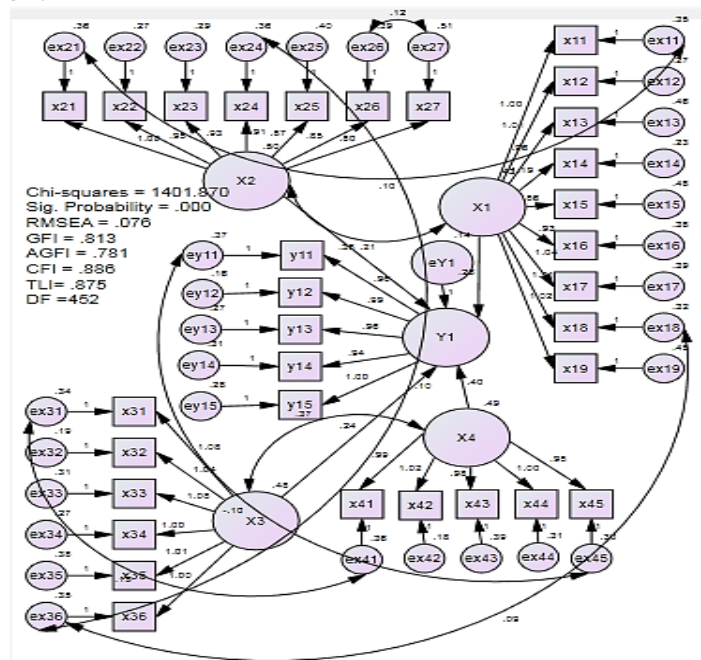


Figure 1. Full Model of Structural Equation Modification of Causal Relationships between Pedagogical Competence, Professional Competence, Personality Competence, and Social Competence on Lecturer Performance

In this case there are 5 numerical input consisting of 4 independent variables and 1 dependent variable, namely:

- (i) KPEDAG (X₁) : Number of respondents' assessment results for Pedagogical Competence (Pedagogical competence has 9 statement items)
- (ii) KPROF (X₂) : Number of respondents' assessment results for Professional Competence (Professional competence has 7 statement items)
- (iii) KKEP (X₃) : Number of respondents' assessment results for Personality Competence (Personality competence has 6 statement items)
- (iv) KSOS (X₄) : Number of respondents' assessment results for Social Competence (Social competence has 5 statement items)
- (v) KDOS (Y₁) : Number of respondents' assessment results for Lecturer Performance (Lecturer performance has 5 statement items)

Based on Figure 1 that has been formed, the structural equation proposed in this study based on the model is:

$$Y_1 = \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + e_1 \quad (1)$$

Then, the output obtained from Figure 1 above can be known for a number of match values from the model, namely:

Table 1. Overall Model Match Test Results

Model Match Size	Value	Model Match Benchmark Value	Model Fit to Data
RMSEA (Root Mean Square Error of Aproximation)	0,076	< 0.1	Yes
NFI (Normed Fit Index)	0,879	> 0.8	Yes (Marginal Fit)
CFI (Comparative Fit Index)	0,886	> 0.8	Yes (Marginal Fit)
TLI (Tucker Lewis Index)	0,875	> 0.90	Pretty Good
GFI (Goodness of Fit Index)	0,813	> 0.90	Pretty Good
AGFI (Adjusted Goodness of Fit)	0,781	> 0.90	Pretty Good

Table 2 presents information that the structural equation model (SEM) model as a whole has a good ability in terms of matching sample data (good fit). According to [8], from several model feasibility tests, the model is said to be feasible if at least one of the feasibility test methods model fulfilled. Indeed, if a model's feasibility test can meet more than one model's eligibility criteria, a confirmatory analysis model will be far better than just one that is met.

Then, the results of hypothesis testing are also obtained using the maximum likelihood estimation method which can be seen in Table 2:

Table 2. Hypothesis Testing Results Using the Maximum Likelihood Estimation Method

Variable	Maximum Likelihood		Path Coefficient Value
Pedagogical Competence (X_1) to Lecturer Performance (Y_1)	Positive	Significant	0,260
Professional Competence (X_2) to Lecturer Performance (Y_1)	Positive	Significant	0,213
Personality Competence (X_3) to Lecturer Performance (Y_1)	Positive	Significant	0,240
Social Competence (X_4) to Lecturer Performance (Y_1)	Positive	Significant	0,398

From Table 2, it is known that the variable that has the path coefficient as the largest estimation result is the social competence variable (X_4). The social competence variable (X_4) was chosen as one of the four competencies that most influenced lecturer performance with regard to the level of student satisfaction with an estimated value of 0.398.

Furthermore, in Table 3, it can be seen that simultaneously the influence of the four competencies on the performance of lecturers simultaneously.

Table 3. Determination Coefficient (R-Square)

Variable	R-Square
KDOS (Lecturer Performance)	0,817

Table 3 presents information in the form of the coefficient of determination. It is known that the value of the coefficient of determination (R-Square) for Y_1 is 0.817. This means that the influence of pedagogical competence variable (X_1), professional competence variable (X_2), personality competence variable (X_3), and social competence variable (X_4) on lecturer performance variable (Y_1) by 81.7%, the rest 18.3% % is explained by other factors.

IV. Conclusion and Suggestion

After testing the hypothesis and analyzing the path using AMOS software version 22 using the maximum likelihood estimation method in the full structural equation model for direct influence research, it is known that all four variables have a positive and statistically significant effect on the lecturer performance variable. Furthermore, it is known that of the four variables analyzed in the model, the social competence variable has the largest estimated coefficient value, which is 0.398. the performance of lecturers who teach in their classrooms. Also known is the coefficient of determination (R-Square) of the four variables for the lecturer performance variable of 0.817.

Based on the results of this study in the above conclusions, it is expected that the lecturers of Universitas Potensi Utama Medan who have been given an assessment in the form of questionnaires by students who provide the highest assessment results for social competence variables in order to maintain or increase

student satisfaction for these competencies related to lecturer performance. While for other variables, such as professional competence and personality competence, it is also expected that lecturers will pay attention and improve both of these variables. So that these two variables can provide more value, not only for the lecturer itself, but also for management or leaders and all stakeholders at the Universitas Potensi Utama Medan. This can be done by optimizing the ability of these competencies in order to further improve the performance of lecturers and the quality of lecturers at the Universitas Potensi Utama Medan in the future.

The next suggestion that the writer can give is for those who want to do further research related to the problem of Management Information Systems in relation to improving the performance of lecturers in a college, so that they can develop this research by adding the number of new variables and indicators accordingly.

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