Analysis of Factors Affecting the Performance of Lecturers in Conducting Research: A Case Study on Private Universities in Medan

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ABSTRACT

The purpose of this research is to find out and analyze the effect of competence, organizational commitment, leadership and motivation on lecturers' performance in conducting research. This research is descriptive associative. The object is permanent lecturers at private universities in Medan City. The results of this study stated that partially the variables of competence, leadership and motivation have a significant and positive effect on the performance of lecturers in conducting research, while the variable of organizational commitment has no significant and positive effect. Simultaneously the competency, organizational commitment, leadership and motivation variables have a positive and significant effect on the performance of lecturers in conducting research.

Keywords: Competence, Leadership, Lecturer Performance, Motivation, Organizational Commitment

INTRODUCTION

Higher education is one place to order the younger generation to be able to face increasingly fierce competition with other nations in the world by providing quality education. This means that universities must continue to strengthen the ability of the ranks / academics to be more professional and quality. One of the most important factors in creating quality education is lecturers.

Lecturers are professional educators and scientists with the main task of transforming, developing, and disseminating science, technology, and art through education, research, and community service (Kemristekdikti, 2009). From the description above, generally, the tasks of lecturers are divided into 3 parts called Tri Dharma Perguruan Tinggi consisting of education, research and community service.

Lecturer performance is the ability to carry out their work or tasks in completing a certain job. This implies that the performance of a lecturer is the ability to complete his/her works pertaining to the Tri Dharma Perguruan Tinggi. A lecturer likely demonstrates a great performance if he/she is able to complete all of his assignments. However, in reality most lecturers merely do their work in the field of education or teaching and studiously ignore their other duties, namely research and service. In fact, research and community service are also included in the main task as a lecturer.
This can be perceived from the incomparable number of lecturers to their scientific publications. Director General of Research and Development Strengthening Ristekdikti, Muhammad Dimyati explained that by September 9, 2019, there were 177,000 lecturers and researchers from 4,607 universities in Indonesia however only 34,007 researches were published. (Setiawan, 2019). This shows that there are lecturers forget Tri Darma tasks to conduct a research. Suppose each and every lecturer solely conducts one single research, there should be 177,000 research publications. Not to mention there are some lecturers with a lot of research while the others have no single research. 2018 Higher Education Statistics Book issued by Ministry of Research and Technology shows that the number of lecturers in private universities in Medan is 12,627 consisting of resident and adjunct lecturers. Data from the North Sumatra Central Statistics Agency 2018 shows that out of 36 private universities in Medan, there are 5,405 permanent lecturers (“https://sumut.bps.go.id/statictable/2018/11/27/1283/jumlah-perguruan-tinggi-swasta-mahasiswa-dan-dosen-menurut-jenis-perguruan-tinggi-se-sumatera-utara-2017-2018.html,” 2019). Although there is no exact data showing how many research conducted by lecturers at private universities in Medan, referring to the data from the Director General of Research and Development Strengthening, Muhammad Dimyati, on September 9, 2019 it can be concluded that some lecturers remain inattentive to conduct a research at private universities in Medan.

This gap shows the problems in the performance of lecturers in conducting research. This is due to the reasons that the amount of teaching income is directly in proportion to teaching hours. As a result they prefer teaching rather than researching. This was stated by Ali Ghufron Mukti as the Director General of Science and Higher Education Resources Ministry of Research Technology and Higher Education (Tempo, 2016).

Factors affecting performance are those of individual variables consisting of abilities and skills, background, and demographics. The second factor is that of psychological variables consisting of perception, attitude, personality, motivation, job satisfaction and job stress. While the third factor consists of leadership, compensation, conflict, power, organizational structure, job design, organizational design, and career (Gibson, et al., 2008).

From explanation above, the problem of lecturer performance is impacted by many factors. However, they related to the first problem. The ability and skills or competence in conducting research varies; some are able to conduct research while the others are not. The second problem is the leadership unable to fully recognize the lecturers’ weaknesses and greatly facilitate them designs to overcome these problems. In addition, it miscarries the lecturers’ potentials to conduct or even develop their researches. It lacks of assertiveness in giving instructions to urge the lecturers to carry out research as their duties and responsibilities as lecturers. The third problem is the commitment of organizations to promote research as an obligation among lecturers at private universities in Medan. This is caused by virtue of being assumed to be tedious and time-consuming work, while teaching is fun and more financially profitable. The fourth factor is the lecturers’ individual motivation, both from within and outside the lecturers themselves. Motivation from within can be a desire to achieve job satisfaction in completing research and get more confidence and prestige on the results of research conducted. Motivation from outside can be the encouragement to get more incentives or income.
Lecturer Performance in Research

Quality human resources are needed as supporting resources to advance the organization in achieving its stated goals. Ones in strategic position to increase organizational productivity are employees, namely individuals working in an organization or company. According Prawirosentono in Novarini & Imbayani (2019), performance is the result of work achievable by a person or group of people in the organization, in accordance with their respective authority and responsibility in order to achieve organizational goals legally, as the law, morals and ethics stand.

In another sense, performance is a measure of what employees do and what do not (Robbins & Judge, 2011). A job has certain requirements to achieve work objectives or standards (Bangun, 2012). Performance can be interpreted as a job presentation, job performance, job achievement, job results or performance (Trisnaningsih, 2011).

Lecturers are professional educators and scientists with the main task to transform, develop and disseminate science, technology, and art through education, research, and community service (Undang-Undang Republik Indonesia Nomor 14 Tahun 2005 Tentang Guru Dan Dosen, 2005). Therefore, the performance of lecturers is their ability to carry out their work or tasks in completing a job that involves Tri Dharma Perguruan Tinggi (Kemristekdikti, 2009). Educational performance criteria, according to Becker & Huselid (2001), aimed at 1). improving performance, capabilities, and education output, 2). facilitating communication and exchange of information about best educational practices with various types of educational institutions, and 3). becoming a tool to understand and improve the performance of educational institutions and guidelines in strategic planning.

There are several theories suggesting the factors driving employee performance. According to Mathis and Jackson in Rumawas (2018), factors affecting the performance of individual employees including their abilities, the effort they devote, and the organizational support they receive. Factors that affect the performance of individual workers, namely: 1). abilities, 2). motivation, 3). support received, 4). The existence of the work they do, and 5). their relationship with the organization (Hasibuan, 2014). Factors affecting performance includes following:

a. Ability
Psychologically, the ability of employees consists of the potential ability (IQ) and the ability of reality (education). It is necessary to put employees in jobs they expertise.

b. Motivation
Motivation is shaped from the attitudes of an employee in dealing with work situations (Mangkunegara, 2017). It moves employees to to achieve work goals. According to Gibson, et al. (2008), there are 3 factors that influence performance: 1). individual factors: ability, skills, family background, work experience, social level and demographics of a person, 2). psychological factors: perception, role, attitude, personality, motivation and job satisfaction, and 3). organizational factors: organizational structure, job design, leadership, reward system.

Competence
According to Becker and Huselid (2001), competence refers to the knowledge, skill and abilities of each individual or personal character that directly influences individual job performance. According to Grote in Pramudy (2010), competence is a fundamental characteristic of individuals. It is related to the size or effective reference to performance in a particular job or situation. Competence can be used to predict
performance, i.e. who is performing well and who is not, depending on their competency measured by certain criteria or standards.

There are four competences that must be possessed as a lecturer in carrying out the duties of higher education. These are pedagogic, professional, personal and social. These four indicate the performance of lecturers as educators and instructors (“Undang-Undang Republik Indonesia Nomor 14 Tahun 2005 Tentang Guru Dan Dosen,” 2005).

Organizational Commitment
Organizational commitment is defined as a combination of attitudes and behavior. It involves three attitudes namely, a sense of identifying with organizational goals, a sense of involvement with organizational tasks, and a sense of loyalty to the organization. Kalbers and Fogarty in (Trisnaningsih, 2011) use two views on organizational commitment, namely, affective and continuance. The results reveal that affective organizational commitment is related to one view of professionalism that is devotion to the profession, while organizational commitment continuance is positively related to experience and negatively to the view of professionalism of social obligations. Buchanan in (Vandenberg & Lance, 1992) defines commitment as employee acceptance of organizational values (identification), psychological involvement (psychological immersion), and loyalty (affection / attachment).

Commitment is an attitude and behavior that push (reinforce) one another. Employees who are committed to the organization will show positive attitudes and behaviors towards the institution, be encouraged to keep defending the organization, try to improve performance, and have a certain confidence to help realize the organization goals. In other words, employees’ commitment is their loyalty to the organization, in addition to growing loyalty and encouraging employee involvement in making decisions. Therefore commitment will create a sense of belonging and lead to organizational success and prosperity achievement in the long run.

Leadership
Yuki in (Pati, 2019) states that leadership is related to someone’s deliberate process to emphasize his/her strong influence on others to guide, structure, facilitate activities and relationships within groups or organizations. Burns in (Pramudyo, 2010) describes transformational leadership as a process by which “leaders and followers raise one another to a higher level of morality and motivation”. Bernard M. Bass in (Pramudyo, 2010) proposes a transformational leadership theory built on ideas earlier than Burns. The theory formulation includes three components, namely charisma, intellectual stimulation, and individualized consideration.

Handoko (2014) states that in reality, leaders can influence morale and job satisfaction, security, quality of work life and especially the level of achievement of an organization. Effective leaders are those who have certain desirable traits or qualities such as charisma, forward-looking, intensity, and self-confidence.

Effective leadership can provide direction to the efforts of all workers in achieving organizational goals. The success or failure of an organization is always associated with leadership (Handoko, 2014).
Motivation
Motivation is something that starts a movement, something that makes people act or behave in certain ways. Gibson, et al. (2008) defines motivation as the force that drives employees to do something that gives rise to and directs behavior. According to Liang Gie in Sulila (2019), motivation is the work carried out by managers in providing inspiration, enthusiasm, and encouragement to others, in this case, their employees, to take certain actions. It is formed from the attitude of an employee in dealing with work situations. Motivation is a condition that moves employees to achieve organizational goals (Reksohadiprodjo, 2008).

In this instance, there is a positive relationship between achievement motives and achievement of lecturer performance. Achievement motive is an encouragement in lecturers to do an activity or task as well as possible in order to be able to achieve high work performance. The motivation process includes three things, namely: the introduction and assessment of unsatisfying needs, the determination of goals that will determine satisfaction, and the determination of actions needed to satisfy needs. Work motivation in general can be identified as a series of driving forces that arise from within and outside each individual. These two forces generate interest in work, relate to behavior and determine the direction, intensity and duration of individual behavior or habits.


RESEARCH METHOD

Types of Research
This study uses an associative type of research to see the effect of the independent variables with the dependent variable, namely the variables of competence, organizational commitmen, leadership and motivation to performance of lecturers in researching either partially or simultaneously.

Place of Research
The place of research was conducted at several Private Universities in Medan City. To get the focused results, this research was conducted in only 30 private universities in Medan City.

Population and Sample
The population in this research is all resident lecturers teaching at private universities in the city of Medan, a total 5,405 people based on data from North Sumatra Central Bureau of Statistics. The population samples are out of 30 private universities in Medan City and the samples were selected by random sampling method. Samples were taken based on the Fórmula of Slovin by error rate of 5%, thus 373 lecturers were selected as the samples.
Data Collection Technique
The type of data used is primary data derived from questionnaires and interviews with those sampled in this study. In addition to primary data, secondary data from books, literature, references and last research were collected.

Multiple Linear Regression
Multiple linear regression was used to determine the effect of competence, organizational commitment, leadership and motivation on lecturers' performance in conducting research. The forms of the model to be tested in this study are:

\[ Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 \epsilon \]

Where; \( Y \) = Performance of lecturers in conducting research; \( \beta_0 \) = constant; \( X_1 \) = competence; \( X_2 \) = organizational commitment; \( X_3 \) = leadership; \( X_4 \) = motivation; \( \beta_1 \ldots \beta_4 \) = coefficient of the independent variable \( X_1 \ldots X_4 \); \( \epsilon \) = Error.

Classic Assumption Test
The multiple regression method will be used as an unbiased estimation tool if it meets the requirements of Best Linear Unlimited Estimation (BLUE). Therefore, before the multiple linear regression test is performed, it is necessary to have a classic assumption test for the formulated model that includes the Normality, Heterokedasticity and Multicollinearity Tests.

Hypothesis Test (t-test and f-test)
T-test is used to test the regression coefficient partially from the independent variable. The test criteria used are:
- If the value is significant (\( t_{\text{test}} > t_{\text{table}} \)), then H0 is rejected
- If the significance value (\( t_{\text{test}} < t_{\text{table}} \)), then H0 is accepted
F-statistic test is used to test simultaneously. The test criteria used are:
- If the value is significant (\( F_{\text{test}} > F_{\text{table}} \)), then H0 is rejected
- If the significance value (\( F_{\text{test}} < F_{\text{table}} \)), then H0 is accepted

Coefficient of Determination
In this case \( R^2 \) is to state the coefficient of determination or how much influence the competence, organizational commitment, leadership and motivation partially or simultaneously affect the dependent variable, namely the performance of lecturers in conducting research.

RESULTS AND DISCUSSION

Results of Study
Table 1. Multiple Linear Regression Testing Results

<table>
<thead>
<tr>
<th>Model</th>
<th>Coefficientsa</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>4,101</td>
<td>.097</td>
<td>2,733</td>
<td>.001</td>
</tr>
<tr>
<td></td>
<td>Competency</td>
<td>.431</td>
<td>.015</td>
<td>.537</td>
<td>2,117</td>
</tr>
<tr>
<td></td>
<td>Organizational Commitment</td>
<td>-.026</td>
<td>.029</td>
<td>.030</td>
<td>1,010</td>
</tr>
<tr>
<td></td>
<td>Leadership</td>
<td>.129</td>
<td>.032</td>
<td>.546</td>
<td>3,155</td>
</tr>
</tbody>
</table>
Motivation

| a. Dependent Variable: Performance of Lecturers in Conducting Research |
|------------------|---|---|---|---|---|
| Source: SPSS Data Processing Results (2020) |
| Y = 4.101 + 0.431X1 - 0.026X2 + 0.129X3 + 0.423X4 |
| The equation can be described as follows: |
| a. Constant is 4.101, it means that if the value of competence, organizational commitment, leadership and motivation is assumed to be absent, then the performance of lecturers in research at a private university in Medan City is 4.101. |
| b. Competency regression coefficient of 0.431, meaning that if competence increases by 100%, the performance of lecturers in research at private universities in the Medan City increases by 43.1%. |
| c. The regression coefficient of organizational commitment is -0.026, meaning that if organizational commitment increases by 100%, the performance of lecturers in research at private universities in the Medan City decreases by 2.6%. |
| d. Leadership regression coefficient is 0.129, meaning that if leadership increases by 100%, the performance of lecturers in research at private universities in the Medan City increases by 12.9%. |
| e. The regression coefficient of motivation is 0.423, meaning that if motivation increases by 100%, the performance of lecturers in research at private universities in the Medan City increases by 42.3%. |

Partial Hypothesis Test (t-test)

From the table above, it can be concluded partially hypothesis testing as follows:

a. For competency factors to lecturer performance, t_{test} value is 2.117 > t_{table} 1.645 and sig value is 0.000 < 0.05. Thus the conclusion is competency factor has a significant and positive effect to performance of lecturers in conducting research at private universities in Medan City.

b. For organizational commitment factor to lecturer performance, t_{test} value is 1.010 < t_{table} 1.645 and sig value is 0.532 > 0.05. Thus the conclusion is organizational commitment factor does not have a significant and positive effect to performance of lecturers in conducting research at private universities in Medan City.

c. For leadership factor to performance lecturer performance, t_{test} value is 3.155 > t_{table} 1.645 and sig value is 0.000 < 0.05. Thus the conclusion is leadership factor has a significant and positive effect to performance of lecturers in conducting research at private universities in Medan City.

d. For motivational factors to lecturer performance, t_{test} value is 2.354 > t_{table} 1.645 and sig value is 0.000 < 0.05. Thus the conclusion is motivational factor has a significant and positive effect to performance of lecturers in conducting research at private universities in Medan City.
Table 2. Simultaneous Test Results

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>4</td>
<td>27,651</td>
<td>5,089</td>
<td>.002</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>368</td>
<td>3,867</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>443,005</td>
<td>372</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Competency, Organizational Commitment, Leadership, Motivation
b. Dependent Variable: Performance of Lecturers in Conducting Research

Source: SPSS Data Processing Results (2020)

The table above shows the probability value of $F_{\text{test}}$ is 5.089 > $F_{\text{table}}$ 1.16 and the sig value is 0.000 < 0.05. Thus the conclusion is competence, organizational commitment, leadership, and motivation variables have a significant and positive effect simultaneously to performance of lecturers in conducting research at private universities in Medan City.

Table 3. Coefficient of Determination Results

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.633</td>
<td>.317</td>
<td>.320</td>
<td>2,332</td>
<td>1,265</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Competency, Organizational Commitment, Leadership, Motivation
b. Dependent Variable: Performance of Lecturers in Conducting Research

Source: SPSS Data Processing Results (2020)

Data in table 3 above shows the value of $R^2$ is 0.317, which means that 31.7% of the variation in the value of the lecturers’ performance in conducting research at private universities in Medan City is influenced by the role of variations in competence, organizational commitment, leadership and motivation. While the remaining 68.3% is influenced by other variables not examined in this study.

Discussion

1. Competency Factors against Lecturer Performance in Conducting Research

For competency factors on the performance of lecturers in conducting research at private universities in Medan City, the results of tests conducted showed that the competency factor had a $t_{\text{test}}$ of 2.117 > $t_{\text{table}}$ 1.645 and a sig value of 0.000 < 0.05. Thus the conclusion is competency factor has a significant and positive effect to performance of lecturers in conducting research at private universities in Medan City.

This study results are in line with research conducted by (Kholik, 2016) stating that the competence factor has a significant and positive effect to performance of lecturers in conducting research at Djuanda University, Bogor. (Kurniati & Fidowaty, 2017) in their research also stated that competence influences lecturers’ performance in conducting research at the University Computer Indonesia. (Farida, et al., 2020) in their research
stated that competence has a positive and significant effect on teacher’s performance in Development Technology Vocational School Bekasi, West Java.

From the results of previous and current research, it can be seen that competence is one of the factors creating the level of lecturers' performance in conducting research. The better the competence possessed by a lecturer in terms of research, the more it improves the lecturer performance in raising up his research assignments. Lecturers having no competence in conducting research will certainly make them reluctant and lazy to conduct research.

2. Organizational Commitment Factors against Lecturer Performance in Conducting Research

Organizational commitment factor to lecturer performance in conducting research at private universities in Medan City, the results of tests conducted showed that the organizational commitment factor has a value \( t_{\text{test}} = 1.010 < t_{\text{table}} = 1.645 \) and a sig value of 0.532 > 0.05. The conclusion is organizational commitment factor has not a significant and positive effect to performance of lecturers in conducting research at private universities in Medan City.

The results of this study contradicts the research conducted by (Rifkhan, 2018) which states that organizational commitment factors have a positive and significant effect on Pamulang University lecturers' performance, one of which is conducting research. This is due to the object of the research is more than one place, some private universities in Medan City, which not all of them have organizational commitment to conduct research. Most of them are still focused on Tri Dharma of other tertiary institutions, namely teaching in class. Only a few private universities in Medan City have begun to focus on implementing Tri Dharma Perguruan Tinggi, teaching in class, conducting research and community service simultaneously. This is the reason why organizational commitment in this study shows no positive and insignificant influence on the lecturer performance in conducting research at private universities in Medan City.

3. Leadership Factors against Lecturer Performance in Conducting Research

For the leadership factor on the lecturer performance in conducting research at private universities in Medan City, the results shows that the leadership factor had a \( t_{\text{test}} = 3.155 > t_{\text{table}} = 1.645 \) and a sig value of 0.000 < 0.05. The conclusion is leadership factor has a significant and positive effect to performance of lecturers in conducting research at private universities in Medan City.

The study results are in line with the results of research conducted by (Pramudyo, 2010) stating that the leadership factor has a significant and positive effect to performance of Kopertis Region V Yogyakarta state lecturers. (Purwanto, 2015) in his research also stated that leadership factors had a significant and positive effect to performance of lecturers at universities in Jakarta. The lecturers' performance referred above is composed of Tri Dharma tertiary institutions, one of which is research. As a conclusion, previous researches state that leadership factors have a positive and significant influence on the lecturer performance in conducting research.

From the results of last and current research it can be concluded that leadership is one of the factors that influence the lecturer performance in conducting research. Decisive leadership in directing lecturers to conduct research tasks followed by providing education and training facilities on research will certainly make lecturers become more
enthusiastic and there is no reason not to put in their performance as a lecturer, one of which is conducting research.

4. Motivation Factors against Lecturer Performance in Conducting Research
For motivational factors, the results of tests show that the motivational factors had a $t_{test} = 2.354 > t_{table} = 1.645$ and a sig value of $0.002 < 0.05$. The conclusion is motivational factor has a significant and positive effect on the lecturer performance in conducting research at private universities in Medan City.

The results are in line with research conducted by (Surbakti, 2011) stating that motivational factors have a significant and positive effect to lecturer performance in conducting research at the Computer Science College (STIKOM) Medan. (Nafi’ah & Ayu, 2017) also stated in their research that motivational factors affected the lecturer performance in Insuri Ponorogo, in which the lecturers' performance is manifested in the form of higher education, one of which is research.

From the results of previous studies and research conducted at this time, a conclusion can be drawn that the higher the motivation of a lecturer - whether it comes from within or from the university - to explore his/her potential in research, the higher the lecturer's performance in carrying out his research assignments.

CONCLUSIONS
Competence, leadership and motivation factors partially have a significant and positive effect to lecturer performance in conducting research at private universities in Medan. 2) Organizational commitment factor partially do not have a significant and positive effect to lecturers' performance in conducting research at private universities in Medan city. 3) Competency factors, organizational commitment, leadership and motivation simultaneously have a significant and positive effect on the lecturer performance in conducting research at private universities in Medan City. 4) The coefficient of determination is 31.7%, which means variations in the value of lecturer performance in conducting research is influenced by variations in competence, organizational commitment, leadership, and motivation by this percentage.

Suggestions that can be put forward are: 1) it is necessary for all private universities in Medan City to improve the same vision, commit to realize Tri Dharma Perguruan Tinggi as a whole and at the same time, and not just focus on teaching in the classroom since the development of the current education world requires the implementation of Tri Dharma Perguruan Tinggi as a whole. Along with this commitment, the university will encourage lecturers to improve their performance in conducting research, 2) Enhancing the factors affecting the lecturer performance in research, such as are competence, leadership and motivation factors is equally important. Universities must equip their lecturers with research education and training on a regular basis, then, the leaders need to be firm in directing lecturers to carry out research assignments and provide strict sanctions for those who violate and provide incentives or rewards for those who keep. As a result, there is no reason for lecturers not to undertake research and their performance will increase.
REFERENCES


