

Mapping and Development Model of Characteristics Lecturers' Academic Achievement Based on Geographic Information System

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Abstract

The Academic achievement is one of the performance indicators of lecturer at universities. The academic achievement has influence either directly or indirectly for professors as well as for university. This research was conducted for 364 lecturers, from the 24 universities at East Java. The research's result show that all independent variables have simultaneously influenced towards dependent variable. While, partially Motivation, Ability, Problems have a significant influence towards Efforts in order to improve their academic achievement, while the Opportunity, Organization Commitment, Population density, Distance of residence with College is not significant against Efforts to improve academic achievement. Furthermore, Motivation has dominant influence towards lecturer's efforts in order to improve the academic achievement.

Keywords: Motivation, Problems, Ability, Organization Commitment, Population density, Distance of residence, Academic Achievement.

1. Background

To develop achievement lecturer optimally then required lecturer efforts to improve academic merit and location. Because of the location less support will affect work performance, mood, and change behavior. There is a phenomenon that shows some professors do not take advantage of the opportunity and time to improve academic achievement that materialized in the academic term. In accordance with the time that has been set by the State, namely that at least 1 post of lecturer is done in a year, and promotion is done after at least 2 years. Possibilities in improving the position of academic efforts can also caused by factors in improving the achievement of lecturer's efforts which include: motivations, capabilities, opportunities, problems and organizational commitment, as well as the location of the lecturers include population and distance of lecturer's residence to the location of College. Therefore, this research will focus on the development of model characteristics and accomplishments of the Faculty Academic Lecturer in East Java.

2. Literature Review

Effort is the willingness, sincerity and the spirit of cooperation in achieving the goals, needs, expectations and rewards (Hasibuan, 2003). Motivation has an important role in improving the academic achievement of a lecturer with high motivation then it would encourage lecturer to conduct activities that could support in improving academic achievement. Badra and Prawitasari (2005) states that motivation has a significant and positive impact towards the lecturers performance in Akper, Sorong. Motivation is a personality and human behavior, something that comes from within the concerned of humans (Uno and Hamzah, 2007). Maslow (Handoko, 1997) suggests five needs: Physiological Needs, Sense of security needs, social needs, self esteem needs, and self-actualization needs. (Blumberg dan Pringle (2001) stated that the opportunity should be defined widely not only individual working environment. Opportunity to interact with the ability and motivation in creating a performance but as ability and motivation, opportunity cannot stand on its own to create a performance.

In this problem situation when someone facing a wide range of obstacles (problems) in their efforts to achieve a goal. Process and efforts to overcome obstacles (problems) in order to achieve the goal which is illustrate a great motivation (Munandar, 2001). Problems are environmental factors (external) from individuals who are not profitable will be a thorn for an organization as well as individuals in improving academic term (Munandar, 2001). Our commitment to the Organization reflected workers beliefs about the company purpose and mission, the ability to devote the effort and achievements of his ability to work, and the intention to continue work in such companies (Newstrom and Davis, 1997). The research population is lecturer of East Java Universities which are spread over 10 Colleges. This research is using a sample of representative who will provide you with results that have the ability to be generalized.

To get the validation is done by the method of Purposive Sampling verification by taking those who voted by researchers according to the specifications in order for the research to get data accurately.

3. Multiple Regression Analysis:

Regression Analysis Model is used to test the hypotheses. The model is as follows:

$$Y = a + b_1KI_1 + b_2KI_2 + b_3KI_3 + b_4KI_4 + b_5KI_5 + c_1 LK_1 + c_2 LK_2 + e$$

Description:

Y = Lecturer efforts in improving the academics achievement

KI₁ = Motivation

KI₂ = Ability, KI₃=Opportunities, KI₄=Problems, KI₅= Organization Comitment

LK = Population density and broad of the college

LK₂= Distance respondents place to the college

b₁, b₂, b₃, b₄,b₅= The regression coefficient the individual characteristics factor,

c₁, c₂ = The regression coefficient the location factor, e = Bully Factor

This model is used to find out whether the influence of Motivation, Skills, Opportunities, Problems, Commitment to the Organization, Population density, and the Distance between the place of residence with the location of the College on Efforts in improving academic achievement lecturer at universities in East Java.

Results and Discussion

Overview of Research

Respondents of this study were lecturers at the State Universities (PTN) and Private universities (PTS) in East Java. The data were processed in this study is primary data obtained from questionnaires sent to respondents directly.

Based on questionnaires distributed to faculty in a variety of state and private universities in East Java, it collected questionnaires totaled 364, with details of 124 respondents in the first year, whereas 240 respondents in the second. The entire questionnaire have been filled can be processed and analyzed further.

Respondents that have been collected in this study some 364 professors from 24 universities in East Java, the following characteristics of the respondents who completed a questionnaire as shown in Table 5.1:

General description of Respondents

Data Respondents			
		People	(%)
Gender:	Man	190	52,2%
	Woman	174	47,8%
	Total	364	
Age	24 – 35	64	17,5%
	36 – 45	131	36%
	46 – 55	137	37,6%
	> 56	42	11,5%
	Total	364	
Marriage Status:	Married	355	97,5%
	Not married	9	2,5%
	Total	364	
Education:	S1	3	0,8%
	S2	283	77,7%
	S3	78	21,4%
	Total	364	
Academic status:	Assisstant	80	22,0%
	Lector	193	53,0%
	Senior Lector	85	23,4%
	Professor	8	1,6%
	Total	364	

Source: Primary Data

5.2 Description of the variables

The following is a descriptive data based on the pattern of distribution of respondents in the questionnaires measured using a Likert scale as follows: 1 for Strongly Disagree; 2 for Disagree; 3 for Less Agree; 4 for Agree and 5 for Strongly Agree.

The scoring on each alternative answers given by the respondents in accordance with the predetermined weights. Based on the calculation or tabulation of descriptive data, the respondents' answers on the given alternatives can be determined. The following respondents on the research variables:

Motivation

Respondents' answer as shown in Table 5.3 shows the highest proportion in the categories agreed (score 4) or as many as 1082 score of 42.5 % and the second highest proportion contained in the category of strongly agree (score 5) scores 806 or by 31.6 % . This is an indication that the majority of respondents agreed and strongly agreed to variable motivation. Thus the motivation variables associated with obtaining a good rank in the earnings improvement as motivation, welfare, or the welfare of the old days, extending the service life and increased social status is considered very necessary in improving academic achievement by the respondents.

Motivation is a process where the needs to push someone to do a series of events that lead to the achievement of certain goals, especially in meeting the ongoing needs of the very basic physiological needs. When it is fulfilled, will be motivated to meet the needs of higher levels of the sense of safety about old age security, social needs, needs up to a higher level of need. This is in accordance with the opinion of Maslow suggested that there are five needs: physiological needs, safety needs, social needs, esteem needs and self-actualization needs. Furthermore Maslow (in Stoner1, 1996) states that a person will be motivated to meet the needs of the most powerful, at a given time, thus increasing the need for compliance with the highest of self-actualization as a lecturer. Badra and Prawitasari (2005) stated that motivation has positive and significant impact on the performance of tenured faculty at Akper, Sorong.

Timpe (1993) stated that the two sides of motivation is important generation (behavioral activation) and direction (mobilizing a particular direction). Motivation is a condition that drives employees to achieve organizational goals (Karjantoro, 2004). Achievement motivation is the motive to succeed in carrying out the tasks or jobs motive to obtain perfection. Such motive is an element of personality and human behavior , something that comes from within the human in question (Uno and Hamzah , 2007).

Ability

Based on respondents' answers to the variable ability of lecturers as shown in Table 5.4, showed the highest proportion in the category capable (score 4) as 631 skor or by 57.8% and the second highest proportion in the category are quite capable (score 5) score as much as 263 or by 24 , 1%. This gives an indication that the majority of respondents are able and capable enough to variable ability of lecturers. Thus the ability of faculty associated with the ability to cooperate with other faculty, the ability to creativity in teaching methods, the ability to make scientific work, and the ability to provide training to the community is considered by respondents are able and capable enough in lecturers' academic achievement. Existence as a teacher to be able to take part successfully in the world of education requires deployment capabilities. Deployment capabilities embodied in teaching and learning and research, which would certainly affect academic achievement in the form of rank, in the office of academic personnel. The higher a person's level of ability, the more activity in teaching and learning and research. So it will increase the cumulative number that can be used to improve the position. This is in accordance with the opinion expressed differences capability will directly influence the performance. Rao (1996), states that employees who are very capable may just require very little effort to achieve high performance, whereas employees with low ability may have to work hard to produce high performance. The things that can affect the ability of employees according to the Hasley and Kossen (1991) is knowledge, initiative and attitude.

Opportunities

Based on respondents' answers to the variable Opportunities as shown in Table 5.5, showed the highest proportion in the large category (score 4) as 1387 skor or 54.4% and the second highest proportion found in very large category (score 5) or as many as 754 score was 29, 6%. This gives an indication that the majority of respondents expressed a great opportunity to increase academic achievement and very large. Thus the opportunities associated with teaching opportunities in fulfilling the number of credits, thesis guiding opportunities, opportunities to conduct research, attend seminars chances of doing community service opportunities, and opportunities to write scientific papers considered by respondents to have a great opportunity and very large in an effort to boost achievement academic.

Barriers

Based on respondents' answers to the variable resistance as shown in Table 5.6 , showed the highest proportion in the category do not agree (score 4) or as many as 393 core by 36 % and the second highest proportion contained in the agree category (score 3) as many as 267 or a score of 24.5 % . This gives an indication that the majority (60.5 %) respondents who agree to constraints such outside activity, a long bureaucratic, campus policies as procedures that inhibit academic achievement and there are enough states that the existence of obstacles in efforts to increase academic achievement. Thus the barriers associated with other activities outside of teaching, lack of funds, bureaucracy is too long in the management ranks, and uneven policies on all lecturers in providing teaching load is considered by the majority of respondents did not agree that the constraints and there are some respondents who expressly agrees that it is a bottleneck in efforts to increase academic achievement.

This is because when the lecturer basically have the strong ability, diligence to improve the academic achievement will be able to achieve the desired performance, for Higher Education has made it easier to improve the academic achievement of office is to carry out the (Tri Dharma) Three Obligation of College is an opportunity to do research and doing community services funded Higher Education, though the possibility to obtain research funding from the Higher Education and Community Service is also very difficult proposal required patience, strong will, and of course the luck factor because it must compete with the hundreds of professors. While research funding from universities is also limited compared to the number of existing faculty at the college, so not all take advantage of these opportunities, so it will get a point value to be able to improve academic achievement.

Organizational Commitment

Based on respondents' answers to the variable Organizational Commitment as shown in Table 5.7, showed the highest proportion in the category are not strongly agree (score 4) or as many as 1290 score of 50.6% and the second highest proportion contained in the agree category (score 5) scores as much as 922 or amounted to 36.2%. This gives an indication that the majority of respondents (86.8%) who agree and strongly agree that with the commitment of the organization as a form of business in improving academic achievement. Thus the organizational commitment associated with sense of belonging college, felt bound emotional, and was tried in the normal limits in an effort to succeed in college is considered by the majority of respondents strongly agree and agree that as a form of organizational commitment in an effort to boost achievement academic. Commitment to the organization is a lecturer attitude or an orientation to the organization that links the personal identity of the organization's faculty, 86.8% of the organization's commitment to improving academic achievement. This is in accordance with the opinion Newstrom and Davis (1997) which states that, at the organization's commitment to workers' reflected beliefs about the mission and goals of the company, the ability to devote effort and ability in work performance, and intention to continue working in the company or university.

Population Density

Based on respondents' answers to the variable population density as shown in Table 5.8, showed that the respondents were living in medium-sized city with a population density that is between 0.5 to 1 million people, as many as 111 respondents or 30.5%, and 23.4% were in large cities that have a population density of 1-5 Million People of the total respondents. It means that 53.9% of respondents residing in cities whose population is quite dense, this will have an impact on teachers in an effort to improve academic achievement related with the increasingly dense population effect on academic achievement. This is consistent with the notion that high levels of density that can lead to decreased work performance and mood tend to be more moody, less helping behavior, with other effects of increased crime, suicide, mental illness, and juvenile delinquency.

Distance respondents place with the college

Based on respondents' answers to the variable distance place with universities as shown in Table 5.9, shows that the distance where the respondent lived with universities is at a distance of 5 km sd 10 km as many as 85 respondents or 23.4% of the total 364 respondents. Means many respondents residing at a distance of 5 - 10 km from the place of teaching, it will have an impact on teachers in an effort to improve academic achievement, with the assumption that the lecturers who reside far from the university where work has been feeling tired upon arriving at work because of the traffic congestion during the journey so that upon arriving at work cannot work optimally in improving academic achievement.

In a study with data obtained using a questionnaire as a data collection, it is necessary to test the validity and reliability of the instrument of each variable. After the instrument and the data are valid, then the regression analysis of the data research was conducted. The testing instruments following data:

Validity test is done to ensure that each item in accordance with the purposes of research questions. Valid instrument means a measuring tool used to obtain valid data. Valid means that the instrument can be used to measure what should be measured (Sugiyono, 2008:172).

Valid or not an instrument can be seen from the value of the correlation coefficient between the score of the item with the total score by comparing the value of Corrected Item Total Correlation is critical to the value of r_{table} , with the following conditions:

a) Determine Hypothesis:

H0: Score the questions positively correlated with the total score of the construct, then the questions are not valid.

H1: Score the questions are not positively correlated with the total score of the construct, then the questions valid.

b) The level of significance of 5% (0.05), then r_{table} with degrees of freedom (n-2) can be found at = 0.113

c) Criteria for acceptance of the hypothesis

H0 is accepted if $r_{\text{calculation}} < r_{\text{table}} = 0.113$, then H1 is rejected, meaning that the item in question is said to be invalid.

Validity test calculations with SPSS as shown in Table 5.10. that all instruments Corrected Item Total Correlation values for each instrument all variables over critical value of r (0.113). This shows that all of the research instruments each variable is accurate in support of the construct. It means that the instrument can be used to measure what should be measured.

Reliability is a method that shows the extent to which a measuring instrument is reliable or unreliable, the reliability could also be interpreted as a tool to measure a questionnaire which is an indicator of the variables or constructs. According Ghazali (2001: 135), a construct or variable is said to provide reliable if the Cronbach Alpha value $>$ critical value (0.6000). Reliability of the test results are shown in Table 5.11, all variables Cronbach Alpha value of the critical value (0.6000). So it can be concluded that the research instrumentation is reliable, meaning that the measuring instrument used to measure a construct is relevant.

To determine the existence of multicollinearity by observing at the magnitude of VIF. VIF regression when multicollinearity free <10 and tolerance values > 0.10 (Ghozali; 2006:124). The results of calculations shown in Table 5.12. From Table 5.12 it can be concluded that all the value of all independent variables VIF <10 and tolerance values > 0.10 , it can be said there is no regression of the symptoms of multicollinearity. This means that between the independent variables are not linear circuit occurs.

To determine whether there is autocorrelation between the independent variables by looking at the value of the Durbin-Watson when positioned between between ± 2 . If the value is above the Durbin-Watson ± 2 , then there is no autocorrelation. Test results with SPSS to determine the autocorrelation can be seen in Table 5.13:

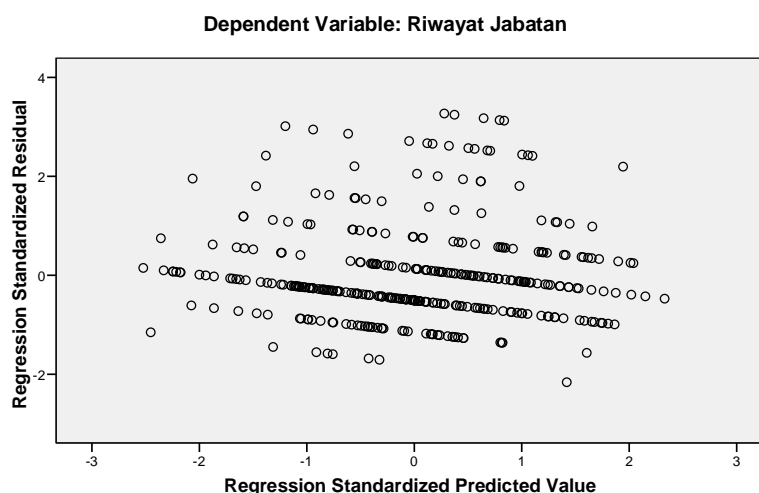
The results show the value of the Durbin-Watson = 1,142 greater than $+2$, we can conclude there is no autocorrelation. Because the DW value lies outside the ± 2 , meaning that the autocorrelation is equal to zero, which means there is no autocorrelation.

Heteroscedasticity test is designed with the goal to identify an association or independent variables of the study of the occurrence of the prediction error (standard error). If a regression model heteroscedasticity occurs, it indicates that the regression model containing elements formed as a result of the refraction of the contribution of independent variables (independent) to error estimation or prediction error (e).

One method used to determine the presence of heteroscedasticity is with the help of SPSS through the graphical approach. With the provisions, if the location of the data points distributed around 0-Y and does not form a specific pattern means not occur heteroscedasticity. To see heteroscedasticity as Figure 5.1

Heteroskedastisitas pada Regresi Linier Berganda

Scatterplot



The picture above shows that the data spread and does not form a specific pattern, which means that heteroscedasticity is not happened.

Multiple Regression Model

This analysis is used to simplify see the extent of the relationship between independent variables and the dependent variable, in this analysis can be measured by the degree of closeness of the relationship between one dependent variable and one or more independent variables.

$$Y = 0.562 + 0.261 + 0.067 \text{ k11 k12 k13 } 0.243 + 0.053 + 0.027 + \text{KL4 k15 lk1 } 0.204 + 0.011 + \text{LK2} + e$$

Regression coefficients of the independent variables showed that the above equation can be described as:

- 1). A constant value of 0.562, can be defined if the variable is zero, then the value of the dependent variable will be = 0.562, meaning that it shows the level of faculty efforts to improve academic performance without the influence of variable independent t.
- 2) The value of the regression coefficient of 0.261 for Motivation can be interpreted that if the other independent variables are constant, then with one unit increase of motivation, it will be able to increase the value of the dependent variable of 0.261. Likewise, if the other independent variables are constant in means no addition, with one unit increase motivation, it will be able to increase the value of the dependent variable of 0.261. Vice versa, if there is one unit decrease in the dependent variable will decrease by 0.261, which means the greater the motivation lecturer, then lecturer in the greater effort to improve academic achievement, assuming other variables remain
- 3) The value of the regression coefficient of 0.067 for the ability of lecturers can be interpreted if the other independent variables are constant in the sense that there are no additions, with one unit increase in teacher ability, it will be able to increase the value of the dependent variable of 0.067. Vice versa, if there is a decrease of one unit of the variable dependent variable, it will fall by 0,067. Regression coefficient of 0.067 for the assessment of ability can be defined if the other independent variables are constant in the sense that no addition, with the increase of the capacity assessment unit faculty, it will be able to increase the value of the dependent variable of 0.067. Vice versa, if there is a decrease of one unit of the variable dependent variable, it will fall by 0.67 which means that the greater the greater the ability of faculty lecturer efforts in improving academic achievement, assuming other variables remain constant.
- 4) The value of the regression coefficient of 0.243 for Opportunity means that if the other independent variables are constant, with an increase of one unit of opportunities, it will be able to increase the value of the dependent variable of 0.243. Vice versa, if there is one unit decrease in the dependent variable will decrease by 0.243. Value for the regression coefficient of 0.243 can be interpreted Opportunities that if the other independent variables are constant in the sense that there are no additions, with one unit increase in opportunities, it will be able to increase the value of the dependent variable of 0.243. Vice versa, if there is one unit decrease in the dependent variable will decrease by 0.243. which means greater opportunities lecturer, then lecturer in the greater effort to improve academic achievement, assuming other variables remain.
- 5) The value of the regression coefficient for the resistance of 0.053 means that if another independent variable is constant in the sense that no addition, with the increase of the resistance unit, it will be able to increase the value of the dependent variable of 0.053. Vice versa, if there is one unit decrease in the dependent variable will decrease by 0.053. Regression coefficient for the Barriers (KI4) of 0.233 means that if another independent variable is constant in the sense that no addition, with the increase of the resistance unit, it will be able to increase the value of the dependent variable of 0.053. Vice versa, if there is a decrease of one unit then the dependent variable will decrease by 0.053, which means the greater the resistance the smaller faculty lecturer efforts in improving academic achievement, assuming other variables remain.
- 6) The value of the regression coefficient of 0.027 for the organization's commitment means that if another independent variable is constant in the sense that there are no additions, with one unit increase organizational commitment, it will be able to increase the value of the dependent variable of 0.027. Vice versa, if there is one unit decrease in the dependent variable would fall by 0,027. Regression coefficient of 0.027 for Organizational Commitment means that if another independent variable is constant in the sense that there are no additions, with one unit increase organizational commitment, it will be able to increase the value of the dependent variable of 0.027. Vice versa, if there is one unit decrease in the dependent variable would fall by 0,027 which means that the greater the commitment, the greater the Organization lecturer faculty efforts to improve academic achievement, assuming other variables remain.

7) The value of the regression coefficient for population density of 0.204 means that if another independent variable is constant in the sense that there are no additions, with one unit increase in population density, it will be able to increase the value of the dependent variable of 0.204. Vice versa, if there is one unit decrease in the dependent variable will decrease by 0.204. Value for the regression coefficient of 0.204 Population density means that if another independent variable is constant in the sense that there are no additions, with one unit increase in population density, it will be able to increase the value of the dependent variable of 0.204. Vice versa, if there is one unit decrease in the dependent variable will decrease by 0.204 which means that the denser the population hence smaller faculty efforts to improve academic achievement, assuming other variables remain.

8) The value of the regression coefficient for the distance of a residence with PT (LK2) of 0.077 means that if another independent variable is constant in the sense that no addition, with the increase of the distance unit residence with PT, it will be able to increase the value of the dependent variable for 0.077. Vice versa, if there is one unit decrease in the dependent variable will decrease by 0.077 which means that the further the distance quarters the greater faculty lecturer efforts in improving academic achievement, assuming other variables remain.

9) The value of the regression coefficient for the distance of a residence with PT of 0.011 means that if another independent variable is constant in the sense that no addition, with the increase of the distance unit residence with PT, it will be able to increase the value of the dependent variable of 0.011. Vice versa, if there is one unit decrease in the dependent variable would fall by 0,011 which means that the further the distance, the greater faculty lecturer efforts in improving academic achievement, assuming other variables remain.

Hypothesis testing

1) Test for Simultaneous Effects

a. Hypotheses:

H0: There is no significant effect simultaneously between the independent variable on the dependent variable.

H1: There is significant simultaneous effect between the independent variable on the dependent variable.

b. Criteria for acceptance of the hypothesis

H0 is not rejected if the value of $\text{sig} > \alpha$ (5%), then H1 is rejected

H0 is rejected if the value of $\text{sig} < \alpha$ (5%), then H1 is accepted

As the tables above, the test results together of independent variables on the dependent variable showed that the calculated F value of 3.512 and significance rate of 0.001, then Ho is rejected, meaning that all the independent variables simultaneously significant effect on the dependent variable. This proves that the hypothesis which states that Motivation, Opportunities, Barriers, Ability, Organizational Commitment, Population density, and Distance residential simultaneous influence on the dependent variable is proved.

2) Partial test

a. hypothesis:

H0: There is no partial effect between the independent variable on the dependent variable.

H1: There is a partial influence of the independent variable on the dependent variable.

b. Criteria for acceptance of the hypothesis

H0 is not rejected if the value of $\text{sig} > \alpha$ (5%), then H1 is rejected

H0 is rejected if the value of $\text{sig} < \alpha$ (5%), then H1 is accepted

It shows that for the variable Motivation, Opportunity, and the population density significantly influence on academic position, because it significant value < 0.05 , while the lecturer ability, barriers, organizational commitment, and the distance to the college residence does not have a significant influence on academic position, because the value is > 0.05 . Motivation plays an important role in improving the academic achievement of a teacher with high motivation it will encourage faculty to engage in activities that can support in improving academic achievement to engage in Three Obligation of University which ultimately can support improved academic achievement that positions academic. Timpe (1993) stated that the two sides of motivation is important behavioral activation and mobilizing a particular direction. Motivation is a process where the needs push someone to do a series of events that lead to the achievement of certain goals. Particularly in meeting the ongoing needs of the very basic physiological needs, when it is fulfilled, will be motivated to meet the needs of higher level, namely sense secure about old age security, social needs, needs up to a higher level of need.

Opportunity is an open condition in the future that has never been experienced by a person or organization that is different from or ever being experienced, and contain uncertainty. Mulyadi (2001) Blumberg and Pringle (2001) stated that the opportunity should be broadly defined not only individual working environment. Opportunity consist of several configurations that surround a person's power and duties that would facilitate or impede the performance of the person and are beyond one's control. Opportunity to interact with the ability and motivation in creating performance but such ability and motivation, opportunity cannot stand alone to create a performance . In the corporate world or education opportunities to use maximum capacity not utilized by all faculty or employees. Similarly, there is sometimes a chance but his skills cannot meet the needs of the company or university that one should strive to improve his capabilities in accordance with the company expected to be able to capture these opportunities

Population density increased significantly influence academic achievement this is caused by the presence of intense competition, existing problems complexity in the environment, it can determine academic achievement. This affects the pattern of behavior that has to do with a person or group of people. This includes personality and defense against interference from outside. High population density may result in decreased work performance and mood tend to be more moody, less helping behavior, with other effects of increased crime, suicide, mental illness, and juvenile delinquency.

Coefficient of Determination (R) and Correlation Coefficient (r)

Used to find the influence of the independent variables to the dependent, if the correlation is close to 1 or more > 0.80, it can be said fairly strong correlation.

1) The correlation coefficient (r)

Look at the table of the correlation coefficient of each variable motivation of 0.134 means that the magnitude of the effect of 13.4% of the variable Achievement lecturers, lecturers Fit variable of 0.30 means that the magnitude of the effect of 3% toward achievement variable lecturer. Opportunities variables influence the magnitude of 0.105 means that 10.5% of faculty performance variables. Barriers variable of 0.028 means that the magnitude of the effect of 2.8% of the faculty performance variables.

Organizational commitment variables of 0.009 means that the magnitude of the effect of 0.9% of the faculty performance variables. Variable density of 0.161 means that the magnitude of the effect of 16.1% of the performance variables and variable spacing faculty residence at College of 0.010 means that the magnitude of the effect of 1.0% of the performance variables lecturer

2) The coefficient of determination (Adjusted R²)

To determine the value of the coefficient of determination can be seen in Table 5:15 of 0.046 means that the independent variables can only explain 4.6% of the academic position. While the remaining 85.4% is explained by other variables not included in this model

Conclusions and Suggestion

Conclusion

1. Based on statistical tests, it can be concluded that the variable Motivation, Opportunity, and the population density is partially have a significant impact on academic achievement lecturer. While together all the dependent variables (motivation, opportunity, ability, Barriers, population density, and distance to the university residence) can significantly affect academic achievement.
2. Population density variables have a dominant influence.
3. Implementation of the model is still in process.

Suggestion

1. To motivate faculty to perform Tri Dharma University in order to improve academic achievement.
2. Provide an opportunity for faculty to participate in the Tri Dharma University, so it can be faster in improving academic achievement.
3. By increasing the ability of teachers through seminars, lectures allow S3, and can improve the ability of faculty to conduct Tri Dharma University so that it will also increase the faculty who strive to improve academic achievement

4. Reducing barriers to providing adequate funding to do research, so eager to do the research faculty perform community service which is one element to improve academic achievement, reduce bureaucracy and reduces long busyness other than teaching.

Limitations:

1. Samples taken consists of 24 universities with a limited number of respondents
2. Sampling is done in a relatively short period
3. Using a quantitative approach that does not explore the deeper information of the respondents

References

- Analoui F., and P. Fell. 2002. Have you been appraised? A survey of the university administrative staff. *International Journal of Education Management*. 16/6 pp 279-287.
- Badra , I Wayan dan Johana E. Perwitasari (2005), *Hubungan antara Stress dan Motivasi dengan Kinerja Dosen Tetap pada Akper Sorong*, Working Paper Series, No 8, Januari 2005. Yogyakarta:KMPK UGM.
- Gibson, James L, John M. Invaencevich, James H.Donnely, Jr., 1997, *Organizations*, New York: Business Publications Inc.
- Indrayani,E.2011. *Pengelolaan Sistem Informasi Akademik Perguruan Tinggi Berbasis Informasi dan Komunikasi (TIK)*. Jurnal Penelitian Pendidikan, Vol 12 No 1 April 2011.ISSN 1423-565x.
- Karjantoro, Handoko, 2004.Mengelola kinerja Suatu Tinjauan Praktis , Usahawan, Nomor 7, Juli 2004.
- Kopertis Wilayah VII, 2001, *Petunjuk Teknis Pelaksanaan Penilaian Angka Kredit Jabatan Dosen*. Sub Bagian Kepegawaian Kopertis Wilayah VII. Jawa Timur.
- , 2001, *Ringkasan Tugas Pokok, Wewenang, dan Tanggung Jawab Jabatan Fungsional Dosen, dan Rincian Nilai Angka Kredit Untuk Pengangkatan dan Kenaikan Pangkat Jabatan Dosen*. Sub Bag Kepegawaian Kopertis Wilayah VII Jawa Timur
- Lestariningsih.M 2004. Analisis Motivasi, Kemampuan, Peluang, dan Hambatan yang berpengaruh terhadap Upaya Dosen dalam meningkatkan Jabatan Akademis (Studi kasus pada Univesitas X). Program Pascasarjana Universitas Airlangga.Surabaya.
- Luthans, Fred. 2006. *Perilaku Organisasi 10th*, Edisi Indonesia. Yogyakarta. Penerbit Andi.
- Mahesa, D.,2010, Analisis Pengaruh Motivasi dan Kepuasan kerja terhadap Kinerja karyawan dengan Lama Kerja sebagai Variabel Moderating. Skripsi Universitas Diponegoro. Semarang.
- Martisrini R, 2004 *Analisis Pengaruh Motivasi yang mempengaruhi fungsi upaya kinerja , dan Imbalan dalam menciptakan Kepuasan Kerja di kantor Badan Koordinasi Keluarga Berencana Nasional jawa Timur*, Temu Ilmiah Mahasiswa Magister Manajemen. Surabaya.
- Marifah, D. 2006. Pengaruh Motivasi dan Kepuasan Kerja terhadap Produktivitas Kerja karyawan Riyadi Palace Hotel di Surakarta. Program Pascasarjana Universitas Muhammadiyah Surakarta. Solo.
- Mathis, Robert L. Dan Jackson, John H.2006. *Human Resource Management, Manajemen Sumberdaya Manusia*. Jakarta: Penerbit Salemba.
- Menteri Pendidikan Nasional. 2001. Surat Keputusan No 36/D/O/2001 *Tentang Pertunjuk Teknis Pelaksanaan Angka Kredit Jabatan Dosen*.
- Munandar, AS. 2002. *Psikologi Industri, dan Organisasi*. Jakarta: Universitas Indonesia.
- Nasution, S. 2000. *Metode Research*. Jakarta: Bumi Aksara.
- Newstrom, J.W. and K. Davis. 1997. *Organizational Behavior: Human Behavior at Work*. 10th edition, New York: McGraw Hill
- Pramudyo, A.2010. Analisis Faktor-Faktor yang mempengaruhi kinerja Dosen Negeri yang dipekerjakan pada Kopertis Wilayah V Yogyakarta, Vol I. No 1, Februari2010. JBTI
- Ranupandojo, Heidjarachman, Suad Husnan, 1990, *Manajemen Personalia*, Edisi ke empat, Yogyakarta: BPF.
- Robbins, Stephen P, 2007. *Organizational Behavior*, Upper Saddle River, New Jersey: Prentice Hall International, Inc.
- , 2006.*Perilaku Organisasi* . Jakarta. Salemba.
- Satar, 2005. GIS Partisipatif: Sudah saatnya Diaplikasikan di Indonesia , [http:// www.geografiana . com/makalah/sosial /gis-partisipatif](http://www.geografiana.com/makalah/sosial/gis-partisipatif).
- Schermerhorn Jr, J.R. 2000. *Management*. Terjemahan. Yogyakarta: Penerbit Andi.
- Simamora, H. 2000, *Manajemen Sumber Daya Manusia*. Edisi kedua, Yogyakarta: Penerbit STIE YKPN.
- Singgih Santoso, 2003. *SPSS versi 10 Mengolah Data Statistik secara Profesional*, Jakarta: PT Elex Media Komputindo
- Toha, M. 2002. *Perilaku Organisasi*. Jakarta: PT Raja Grafindo Persada.
- Uno, Hamzah B. 2007. *Teori Motivasi dan Pengukurannya, Analisa di Bidang pendidikan*. Jakarta. Bumi Aksara.
- Wahjosumijo, 1994, *Kepemimpinan dan Motivasi*. Jakarta: Ghalia Indonesia.
- Wexley, K.N, dan G.A. Yukl. 1992. *Perilaku Organisasi dan Psikologi Personalia*. Terjemahan. Jakarta: Penerbit Rineka Cipta.
- Winardi J, 2002, *Motivasi dan Pemotivasian dalam Manajemen*. Jakarta: PT Raja Grafindo Persada.