

# Factors That Influence the Achievement Motivation and Research Productivity of Lecturers in the Higher Education Service Institution Region VI Central Java

Asih Handayani<sup>1\*</sup>, Amiartuti Kusmaningtyas<sup>2</sup> And Slamet Riyadi<sup>2</sup>

<sup>1</sup>University of Slamet Riyadi Surakarta, Indonesia

<sup>2</sup>University of 17 Agustus 1945 Surabaya, Indonesia

**Abstract:**-This study has the purpose to prove and analyze the influence of Competence, Organizational Support, Academic Culture and Paternalistic Leadership Styles on the Achievement Motivation and Its Impact on the Research Productivity of lecturers in Higher Education Service Institution (DIKTI) Region VI Central Java. The data used in this study was the primary data source taken from the questionnaire. The population in this study were all permanent lecturers at private tertiary institutions in Higher Education Service Institution (DIKTI) (LLDIKTI) Region VI Central Java accredited by AIPT "A" and accessible, with the number population of 575 lecturers and 237 as the samples of the study. The data analysis and hypothesis testing in this study using the Structural Equation Model (SEM). The results of the hypothesis testing prove that (1) Competency, paternalistic leadership style and academic culture have no significant effect on the productivity of lecturers in conducting research, (2) Organizational support has a significant negative effect on the productivity of lecturers in conducting research, (3) Competence, Academic Culture and paternalistic leadership style significantly influence the achievement motivation of lecturers in conducting research, (4) Organizational support does not affect the achievement motivation of lecturers in conducting research, (5) Achievement motivation has a positive effect on the productivity of lecturers in conducting research.

**Keywords:** Competence; organizational support; academic culture and paternalistic leadership styles; achievement motivation; lecturer research productivity.

## I. INTRODUCTION

The productivity of Indonesian researchers is still considered low at the international level. Scientific publications by Indonesian researchers at the international level are still small compared to other countries. Scientific publications in international journals are the actualization of researchers in the development of science at the international level. The low level of scientific publications can be seen in Indonesia's research rankings that are indexed by Scopus at the level of ASEAN countries.

Research activities will always deal with researchers. The term researcher is intended for anyone who conducts research. Most of the research is produced from tertiary institutions. The task of researching in tertiary institutions is charged to lecturers in their work called tri dharma of tertiary institutions,

namely teaching, research and community service. This Tridharma of Higher Education is mandated in Law Number 14 of 2005 concerning Teachers and Lecturers, and Government Regulation of the Republic of Indonesia Number 37 of 2009 concerning Lecturers, stated that lecturers are educators with the main task of transforming, developing and disseminating science, technology, and art through education, research and community service.

The productivity and quality of writing of the lecturer reflect the quality of being a lecturer who capable of carrying out scientific functions as well as teaching. The performance of lecturers who read and write a lot and conduct much research will be different from those who only read then teach. The productivity of lecturers in conducting research can be noted by the rarity of research outputs published compared to the number of the lecturer available in some institutions.

Lecturer research productivity within the Higher Education Service Institution (LLDIKTI) region VI of Central Java. The low interest of lecturers in conducting research can be seen from the low number of lecturers who receive research grant funds from the Higher Education.

The data shows that each year the lecturer tries to improve their competence by increasing their functional position. This can be seen from the increase in the number of lecturers who increased their functional position status in 2017 by 1,608 lecturers. Lecturer productivity in conducting research is not in accordance with the results of research conducted by several previous studies such as Kortlik et al. (2002), Bay and Clerigo [1], Wichian, et al. [2] and Saimroh [3] prove that there is a strong influence between competence and lecturer productivity in conducting research.

Institutional support as one of the environmental factors was found to be an important factor in research productivity supported by several studies by Sulo, et al. [4], Wichian, et al. [2], Iqbal and Azhar [5] and Muia & Oringo [6]. Organizational support can be felt through the establishment of policies, the availability of literature in library and journal databases, the adequacy of research funds and the availability of adequate facilities such as computers and laboratories [2].

Different work culture conditions turn out to produce different productivity. Organizational culture in higher education is slightly different from the organizational culture in companies so it is more specifically called academic culture. The Dunder and Lewis [7] study also shows that research productivity varies greatly from one institution to another, depending on the emphasis given to the three main aspects of higher education, namely teaching, research, and service. Kortlik's results show that differences in academic culture will make a difference in research productivity. In line with Kortlik's research (2002), research conducted by Ruswiono [8], Iqbal and Azhar [5] and Murio and Oringo [6] show the influence of academic culture with the productivity of lecturers in conducting research.

Characteristics of a paternalistic leadership style are found in Indonesia, where Irawanto [9] suggests that organizational leaders in Indonesia have a role as wise and honest parents. The argument is based on elements of Javanese culture. The DIKTI Service Institution region VI serves private universities in Central Java where it is known as a culture that upholds the values of harmony and harmony in people's lives. This value will have an impact on a leadership style that has the nature of fatherhood [10]. Cheng et al. (2004) suggest that paternalistic leadership is a leadership style that combines high discipline and authority, with the virtue of a father figure, and moral integrity in a personal atmosphere.

The role of motivation in supporting the fulfilment of needs for achievement is very large, or in other words motivation has a positive relationship with work productivity, this is in line with the opinion of Armstrong [11] (1998: 75) namely "The relationship between motivation and work productivity is something positive", increased motivation will generate more effort in better work productivity and vice versa. Individuals with high-performance needs will be highly motivated to compete and do challenging work so that they have a strong desire as feedback on work performance by doing things better, thereby increasing work productivity. This is also following the goal theory from Robert House who formulated that productivity is a function of motivation:  $P = f(M)$ . Meanwhile, according to expectancy theory productivity is a multiplication of motivation with abilities:  $P = M \times A$  (Suprihanto, 1986).

Sources of motivation can come from internal and external factors. According to Carrel (2005: 9), one of the factors that influence work motivation is competence. A person's competence can be aimed at the work or work, knowledge, skills, behaviour, character, attitudes and talents. Research conducted by Mulyati [12] shows the influence between competence and motivation. By giving awards and recognition from the organization it is hoped that it can motivate employees and be motivated in utilizing their ability to do work and increase work effort so that in turn can also improve their careers in the world of work. Another factor is externally originating from the organization itself, for that human existence in an organization is required to have

competencies according to their fields, otherwise, the organization also needs to support the activities carried out by the people in it, and organizational culture and appropriate leadership styles must also be created. Nasution (2017) supports the existence of a strong relationship between leadership and achievement motivation.

Lecturers who have high research achievements will have higher scores on research activities than those who have a low achievement, and researchers who have high research achievements are more likely to achieve promotion to a higher level than researchers who have low research achievements. The productivity of lecturers in conducting research will increase with the strong motivation of the lecturers themselves. Research conducted by Chen et al. [13], Hamal, Tamunu, and Djaha. (2017), Ganarsih (2017), Margarita & Saragih (2012), Ellerslie and Oppenhei [14], Horodnic and Ardiana [15], Ramli and Jasoh (2015), Hoffmann, Selinda and Denise [16], Kotrlík et al. [17] support the strong influence between research motivation and productivity.

Considering several previous studies that support the existence of a significant relationship between competence, organizational support, academic culture, paternalistic leadership style, motivation and research productivity and the discovery of several phenomena of the still low productivity of lecturer research at LLDIKTI Region VI Central Java, the researcher is intended to test and analyze the influence between competence, institutional support, academic culture and paternalistic leadership style towards achievement motivation and lecturer productivity in conducting research at the Higher Education Service Institution in the VI region of Central Java.

## II. THEORETICAL FRAMEWORK AND HYPOTHESES DEVELOPMENT

### 2.1 Research Productivity

The understanding of the productivity of research has been put forward by several experts, such as Turnage (1990), Print and Haitie (1997), and Creswell (1986) in Lertputtarak [18] (2008: 19). According to Turner (1990), research productivity measures the total output of research results. Creswell (in Saimroh, [3]) defines that productivity includes research publications in professional journals, conference processes, writing books or parts of books, a set in data analysis, dissertation, acquisition of research grants, being an editorial board in a journal, patent acquisition and licensing, writing monographs, developing experimental designs, artistic or creative works, engaging in public debates and comments. Indicators of research productivity refer to LIPI Regulation Number 2, 2014 developed by Saimroh [3] where the productivity benchmarks (LIPI, 2014: 9-13) are the types of publications and the status of the researchers.

### 2.2 Achievement Motivation

The achievement motivation is defined as an attempt to achieve success or succeed in competition with a measure of

excellence that can be either the achievement of others or one's achievements (Mc Clelland, 1987: 40). Where the main indicators of achievement motivation are Need for Achievement, Need for Power, Need for affiliation.

### 2.3 Competence

The definition of competency explained in the Law of the Republic of Indonesia Number 14 of 2005 states that competency is a set of knowledge, skills and behaviours that must be possessed, internalized and mastered by the teacher or lecturer in carrying out professional tasks which include pedagogic competencies, professional competencies, competencies social and personality competence.

### 2.4 Organizational Support

Organizational support is defined as a belief about the extent to which organizations contribute value and care for their well-being. Eisenberger et al. [19] (1986: 501). Indicators of organizational support use instruments from Kortlik et al (2002) with adjustments to universities in Indonesia. Indicator variables are: (a) the number of students who are seconded to be assistants in research, (b) budgeted research funding majors, (c) availability of literature in the library (d) procedural policy research.

### 2.5 Academic Culture

According to the Law of the Republic of Indonesia No. 20 of 2003 concerning the National Education System, it is stated that academic culture is the way of life of a diverse, diverse, multicultural scientific community shelter in an institution that bases itself on the values of scientific truth and objectivity. These values are the interaction between the community, facilities/ infrastructure, management organizations, curriculum and involvement and participation. Academic cultural indicators based on Schein (in Ruswidiono, [8]) and RI Law No. 20 of 2003 [12] namely: (a) Facilities (b) Organizational Management, (c) Curriculum, (d) Involvement & Participation.

### 2.6 Paternalistic Leadership Style

Referring to fatherhood and authority, paternalistic leaders guide subordinates by showing a high level of morality. Thus, three key elements of paternalistic leadership according to Cheng et al. (2004) are authoritarianism; benevolent; and morality. Authoritarian leadership allows leaders to demand full authority and control. Dimensions in this model involve both "authoritarian" and "authoritative" behaviour. Benevolent leadership requires that leaders show an exceptional level of attention to employees like their family members. Moral leadership is a reflection of high personal qualities in the employee's point of view.

### 2.7 Hypothesis

Based on the description of the basic conceptual framework, nine hypotheses are taken as follows:

1. Competence has a significant effect on lecturer research productivity
2. Organizational support has a significant effect on lecturer research productivity
3. Academic culture has a significant effect on the productivity of lecturers' research
4. Paternalistic leadership style has a significant effect on the productivity of lecturer research
5. Competence has a significant effect on the achievement motivation of lecturers
6. Organizational support has a significant effect on the achievement motivation of lecturers
7. Academic culture has a significant effect on the achievement motivation of lecturers
8. Paternalistic leadership style has a significant effect on the achievement motivation of lecturers
9. Achievement motivation has a significant effect on the productivity of lecturers' research

### 2.8 Population and Sample

The study population was permanent lecturers at private tertiary institutions in the Higher Education Service Institution (LLDIKTI) Region VI of Central Java that were accredited by AIPT "A" and could be accessed. This restriction was done to obtain homogeneous data. Higher education that has an "A" accreditation shows good lecturer research productivity according to the eligibility of the National Higher Education Accreditation Board (BAN-PT). This study also limits the sample to lecturers who hold functional positions as Lector and Head Professor. This is due to consideration related to the achievement motivation of lecturers in the functional positions of the Lector and Lector of the Head more strongly motivated to improve achievement. With the criteria determined by the researcher, the data obtained by the lecturer population of Higher Education in LLDIKTI Region VI accredited "A" can be accessed and have functional positions as a lecturer and associate professor.

In this study, the sampling technique was carried out using proportional random sampling technique: Proportional was used to determine the number of samples at each college. With the Slovin formula, the minimum number of samples is 237 lecturers. Data analysis using SEM with the help of the AMOS program.

## III. ANALYSIS OF THE RESEARCH RESULTS

### 3.1 Validity and Reliability

Validity testing was done using confirmatory factor analysis (CFA). Validity testing which according to Sekaran (2006) aims to determine the accuracy and accuracy of a measuring instrument in carrying out its measurement function. Validity testing is done using a confirmatory factor analysis (CFA). According to Ghazali [20], a loading factor  $\geq 0.50$  is considered significant. The results of data processing indicate that all question items are declared valid since each question item that is an indicator of each variable has been extracted perfectly and has a loading factor  $\geq 0.50$ .

To measure the reliability of the instrument this research was carried out using the Cronbach Alpha coefficient. Each Cronbach Alpha value can be known that the variables of productivity, achievement motivation, competence, organizational support, academic culture and paternalistic leadership style have a Cronbach alpha coefficient  $> 0.6$  which means the reliability is said to be good [20].

### 3.2 Model Causality Test

Statistical tests were performed by observing the level of significance of the relationship between variables shown by C.R which is identical to the t-test in regression and its probability value (P). Significant relationships are indicated by a C.R value greater than 1.96 and a P value less than 0.05. Further explanation of the regression weight evaluation analysis can be described and explained as follows:

1. The variable of competence has no significant effect on productivity due to the significance of C.R (0.835)  $< 1.96$  and the probability value = 0.404  $< 0.05$ . Then the first hypothesis H1: competence affects the productivity of lecturers in conducting research is rejected.
2. Organizational Support has a significant negative effect on productivity due to the significance of C.R-3.604  $> 1.96$  and the probability value = 0.000  $< 0.05$ . Then, the second hypothesis, H2: Organizational support has a significant effect on the productivity of lecturers in conducting research can be accepted.
3. Academic culture has no significant effect on research productivity (c.r = -1,170  $< 1.96$ ) with probability = 0.242  $> 0.05$ . Then, the third hypothesis, H3: Academic Culture has a significant effect on the productivity of lecturers in conducting research is rejected.
4. The paternalistic leadership style variable does not significantly affect research productivity (c.r = 0.267  $< 1.96$ ) with probability = 0.789  $> 0.05$ , therefore, the fourth hypothesis, H4: Paternalistic leadership style has a significant effect on the productivity of lecturers in conducting research is rejected.
5. Competency variables significantly affect the achievement motivation due to the significance of C.R (2.249)  $> 1.96$  and the probability value = 0.025  $< 0.05$ . Then the fifth hypothesis, H5: Competence has a significant effect on the achievement motivation of lecturers in conducting research can be accepted.
6. Organizational Support Variable has no significant effect on achievement motivation due to the significance of C.R (0.306)  $< 1.96$  and probability value = 0.759  $< 0.05$ . Then the sixth hypothesis, H6: Organizational support has a significant effect on the achievement motivation of lecturers in conducting research is rejected.
7. Academic cultural variables significantly affect the achievement motivation due to the significance of C.R (2.075)  $> 1.96$  and the probability value = 0.038  $< 0.05$ . Then the seventh hypothesis, H7: Academic Cultural Factors significantly influence the achievement motivation of lecturers in conducting research can be accepted.
8. The paternalistic leadership style variable significantly affect achievement motivation due to the significance of C.R (1.996)  $> 1.96$  and probability value = 0.046  $< 0.05$ . Then the eighth hypothesis, H8: Paternalistic leadership style has a significant effect on the achievement motivation of lecturers in conducting acceptable research.
9. Achievement motivation has a significant effect on productivity due to the significance of C.R 2.879  $> 1.96$  and the probability value = 0.004  $< 0.05$ . Then the ninth hypothesis H9: Achievement motivation has a significant effect on the productivity of lecturers in conducting research can be accepted.

## IV. DISCUSSION

### 4.1 The Effect of Competence on Research Productivity

The results of this study prove that competence has no significant effect on the productivity of lecturers' research. The results of this study do not support previous studies as revealed by Kortlik et al. (2002), Bay and Clerigo [1], Wichian, et al. [2] and Saimroh [3] which prove the strong influence between competence and lecturer productivity in conducting research.

The factor that caused the effect of competence on research was not significant, most likely due to the respondent was a lecturer who had a functional position as a lecturer and associate professor so that he was considered to have more competence as a lecturer in producing research. However, descriptive data can be found in the average age of most respondents were more than 50 years so that it has physically decreased. The results of the research produced during the last two years at most in an average of four to six studies. From this, there is no significant effect between research competence and productivity.

### 4.2 The Effect of Organizational Support on Research Productivity

The results of this study prove that organizational support has a significant effect on research productivity but the effect is negative. This supports previous research conducted by Sulo et al. [4], Wichian et al. [2] Iqbal and Azhar [5] and Muia & Oringo [6] which states there is a significant relationship between organizational support and research productivity, will but this study does not support research conducted by Margaretha and Saragih [21] and Bay & Clerifo [1].

The interesting thing from the results of this study is that organizational support has a significant effect on research productivity but the negative effect means that the higher or

the amount of organizational support the lecturer research productivity will decrease. This can be related to several things, namely from the results of interviews and findings in the field in general, organizational support is focused on funding, where the University supports lecturer research activities on funding contributions, which are expected to increase lecturer research productivity in which the amount of research funding depends on the outcome of that research. The more interesting the outcomes offered by lecturers, for example, are published in international journals that are indexed by Scopus or maybe it is expected to become a monograph book, it will receive large funding support as well. In this study, the funding indicator items made the smallest contribution, therefore, it is the demanded outcome which is challenging that triggers the reluctance of lecturers to take the research grant.

#### *4.3 The Effects of Academic Culture on Research Productivity*

The results of this study indicate that Academic Culture does not significantly affect research productivity. This shows that changes in the atmosphere of academic culture did not significantly influence the changes in the productivity of lecturers in conducting research. This study does not support the research of Kortlik (2002), Ruswiono [8], Iqbal and Azhar [5] and Murio and Oringo (2016).

The effect of academic culture which is not significant can be due to the length of the tenure of the respondent in this study which averages between 16-21 years so that it can be said to be long enough to familiarize themselves with the conditions of existing academic culture. This causes changes in the atmosphere of academic culture will not change their productivity in research in a short time, changes in the academic atmosphere also require a long time to affect the productivity of lecturer research.

#### *4.4 The Effect of Paternalistic Leadership Style on Research Productivity*

In this study, it can be concluded that the paternalistic leadership style does not significantly affect the productivity of lecturers' research. This study does not support previous research, namely research conducted by Goodall, McDowell & Singel (2014) and Barnove (1975). It can be interpreted that the paternalistic leadership style does not significantly influence changes in the productivity of lecturers' research.

Based on the observations of researchers and interviews in the field of study, the paternalistic leadership style that did not significantly effect the productivity of this research could be due to the long working age of the lecturers so that they felt more familiar with the current leadership. While the indicator that has the biggest contribution is morality. A subordinate needs a role model or example from the leader when he gets orders from his leader. A close emotional relationship and feel to know the leader better so that the application of paternalistic leadership style in this study does not have a significant effect on the productivity of lecturers' research.

#### *4.5 The Effect of Competence on Achievement Motivation*

The results of this study indicate that competence has a significant effect on achievement motivation. Therefore, the higher the competency of a lecturer, the greater the motivation for achievement that they have. This is in line with the opinion of Carrel (2005: 9). This study also supports the research of Mulyani (2012) that competence has a significant effect on motivation. The competence of the lecturer determines the quality of the implementation of the three tri dharma of the college as demonstrated in the lecturer professional activities. Lecturers who are competent to carry out their duties professionally are lecturers who have pedagogical, professional, personal and social competencies needed in the practice of education, research, and community service. The higher a person's competence in their field, the greater their motivation to show their achievements in the field.

#### *4.6 The Effect of Organizational Support on Achievement Motivation*

The results of this study indicate that organizational support has no significant effect on achievement motivation. So any changes in organizational support will not significantly increase the achievement motivation of the lecturer. This study does not support research conducted by Riantoko, Adnyana Sudibya and Sintaasih (2017).

This could be due to the average age of respondents above 50 years so that there is a tendency to be in a comfort zone, so that various forms of organizational support such as seconded students, research funds, easy access to literature and procedural policies do not have a significant impact on increased motivation to excel in a lecturer.

#### *4.7 The Effect of Academic Culture on Achievement Motivation*

The results of this study indicate that academic culture significantly affects achievement motivation. Therefore, if there is a change in the atmosphere in academic culture it will trigger an influence on the achievement motivation of lecturers. This study does not support the research of Mulyani (2012) where the results of her research cannot prove that there is a significant effect between academic culture and motivation.

By increasing the atmosphere of academic culture, it is hoped that it can improve the achievement motivation of lecturers in carrying out one of their tasks, namely research. Some things related to an academic culture that can be improved include; supporting facilities for research activities, regularity and clarity of organizational management, curriculum changes following scientific and knowledge developments, and good relationships with colleagues.

#### 4.8 *The Effect of Paternalistic Leadership Style on Achievement Motivation*

The results of this study indicate that the paternalistic leadership style significantly affects achievement motivation. This means that the paternalistic leadership style applied in higher education can increase the achievement motivation of a lecturer. This study supports Nasution's (2017) research in which there is a significant influence between leadership and achievement motivation. This study does not support research conducted by Mulyani (2017).

A leader who behaves like a father supports the research of his subordinates and likes to give examples of conducting research turns out to have a positive impact in increasing the achievement motivation of lecturers as his subordinates.

#### 4.9 *The Effect of Achievement Motivation on Research Productivity*

The results of this study indicate that achievement motivation significantly affects lecturer research productivity. Every time there is a change in the achievement motivation of a lecturer it will cause a change in the productivity of his research. The results of this study support research conducted by Chen et al. [13], Hamal, Tamunu, and Djaha. (2017), Ganarsih (2017), Margaretha & Saragih [21], Ellerslie and Oppenhei [14], Horodnic and Ardiana [15], Ramli and Jasoh (2015) Hoffmann, Selinda and Denise [16] which in their research concluded that motivation affects research productivity.

The higher the achievement motivation of a lecturer, the higher the productivity of his research. The motivation that can be improved among other things; Need of Achievement, Need of Affiliation; Need of Power. Needs of Need for Achievement for a lecturer such as the recognition obtained after doing a lot of research. The lecturer can raise his functional position so that he can get recognition up to the professor level. Need of Affiliation that is built can be in the form of a desire to collaborate with lecturers who have the same linearity of knowledge so that they can mutually support and provide input to their research studies, while the Need of Power indicator is power gained after doing a lot of research, so that it can raise functional positions and in the end it can increase the authority of the lecturer in several matters in academia. If all of that is fulfilled properly the research productivity will also increase.

#### V. CONCLUSION

Based on the results of research that has been done using the casualty model, it can be concluded that:

1. Competence, paternalistic leadership style and academic culture have no significant effect on the productivity of lecturers in conducting research.
2. Organizational support has a significant negative effect on the productivity of lecturers in conducting research.
3. Competence, Academic Culture and paternalistic leadership style have a significant effect on the

achievement motivation of lecturers in conducting research.

4. Organizational support does not affect the achievement motivation of lecturers in conducting research.
5. Achievement motivation has a positive effect on the productivity of lecturers in conducting research.

#### VI. SUGGESTION

Based on the results of the study, there is some suggestion proposed to the leaders of higher education in LL DIKTI Region VI Central Java to increase the productivity of lecturers' research by increasing the motivation of achievement in each lecturer by:

1. Help to improve lecturer competencies, particularly on pedagogical competencies, professional competencies and personality competencies.
2. Strengthening academic culture by increasing the feasibility of facilities that support research, simplifying management administration to facilitate research, following curriculum development to facilitate lecturers in finding research theme ideas and more involving lecturers in research projects on campus.
3. Strengthening paternalistic leadership in higher education, so that leaders can behave like all-knowing fathers, who support their subordinates and provide more productive examples of their research.

This study analyzes the effect of competence, organizational support, academic culture, paternalistic leadership style on achievement motivation and lecturer research productivity, so it is recommended that subsequent studies examine more deeply the effect of organizational support on motivation and productivity and group them based on the characteristics of respondents such as age, length of work and gender.

#### VII. LIMITATIONS

1. The seriousness of the respondents in filling out the questionnaire when the study was conducted are things beyond the reach of the researcher in controlling it.
2. There is still one accredited tertiary institution "A" in LL DIKTI Region VI Central Java that is unable to access researcher to complete research data.

#### COMPETING INTERESTS

Authors have declared that no competing interests exist.

#### REFERENCES

- [1]. Bay, Bernardo E. & Clerigo, Maria Eloisa C. 2013. Factors Associated with Research Productivity among Oral Healthcare Educators in an Asian University. *International Education Studies*; Vol. 6, No. 8; 2013 ISSN 1913-9020 E-ISSN 1913-9039 Published by Canadian Center of Science and Education.
- [2]. Wichian et al. 2009. Factors Affecting Research Productivity Of Faculty Members In Government Universities: Lisrel And Neural Network Analyses. *Kasetsart J. (Soc. Sci)* 30: 67 - 78 (2009)

- [3]. Saimroh. 2017. Research Productivity Factors In The Government Institutions (Study In The Office Of Research And Development And Training, Ministry Of Religious Affairs Of Indonesia). *Analisa Journal of Social Science and Religion* Volume 02 No.01 July 2017 pages 139-159.
- [4]. Sulo, et al. 2012. Factors Affecting Research Productivity in Public Universities of Kenya: The Case of Moi University, Eldoret. *Journal of Emerging Trends in Economics and Management Sciences (JETEMS)* 3(5): 475-484 © Scholarlink Research Institute Journals, 2012 (ISSN: 2141-7024) [jetems.scholarlinkresearch.org](http://jetems.scholarlinkresearch.org).
- [5]. Iqbal, Muhammad Zafar dan Mahmood, Azhar. 2011. Factors Related to Low Research Productivity at Higher Education Level. *Asian Social Science* ISSN 1911-2017 E-ISSN 1911-2025 Vol. 7, No. 2; February 2011
- [6]. Muia and Oringo. 2017. Constraints on Research Productivity In Kenyan Universities: Case Study Of University Of Nairobi, Kenya. *International Journal of Recent Advances in Multidisciplinary Research* Vol. 03, Issue 08, pp.1785-1794, August, 2016. [https://www.researchgate.net/publication/307599125\\_Constraints\\_on\\_Research\\_Productivity\\_in\\_Kenyan\\_Universities\\_Case\\_Study\\_of\\_University\\_of\\_Nairobi\\_Kenya](https://www.researchgate.net/publication/307599125_Constraints_on_Research_Productivity_in_Kenyan_Universities_Case_Study_of_University_of_Nairobi_Kenya)
- [7]. Dundar, Halil and Darrell R. Lewis. 1998. Determinants of Research Productivity in Higher Education. *Research in Higher Education*. Vol. 39, No. 6
- [8]. Ruswidiono, R Wasisto. 2008. The Effect of Job Characteristics, Research Methodology Training, and Academic Culture, on the productivity of lecturers in research. *Journal of Business and Accounting* Vol. 10, No.2, Agustus 2008, page 81-90
- [9]. Irawanto, Dodi W. 2012. Exploring Paternalistic Leadership and Its Application to the Indonesian Public Sector. *The International Journal of Leadership in Public Services*, Vol. 8, No. 1, pp. 4-20.
- [10]. Irawanto, Dodi W. 2009. An Analysis of National Culture and Leadership Practices in Indonesia. *Journal of Diversity Management*, Vol. 4, No. 2.
- [11]. Armstrong, Michael. 1990. *Human Resource Management*. Jakarta: PT. Transito Asri Media
- [12]. Mulyati, Tatik. 2012. The Effects of Competence, Academic Culture and Spiritual Leadership on Motivation and Implications. *Equity: Journal of Economics and Finance* ISSN 1411-0393. Pg 66-89
- [13]. Chen, Y Ghupta A and Hoshower L. 2006. Factors that Motivate Business Faculty to Conduct Research: An Expectancy Theory Analysis. *Journal of Education for Business*, v81 n4 p179-189 Mar-Apr 2006
- [14]. Ellerslie, Serena and Oppenhei, Charles. 2008. The effect of motivation on publication productivity of UK LIS academics. *Library and Information Research* Volume 32 Number 101 2008. Page 57-90
- [15]. Horodnic, Loana Alexandra and Zait, Adriana. 2015. Motivation and research productivity in a university system undergoing transition. *Research Evaluation*, Volume 24, Issue 3, July 2015, Pages 282-292, <https://doi.org/10.1093/reseval/rvv010>
- [16]. Hoffmann, Kristin, Berg, Selinda and Koufogiannakis, Denise. 2014. Examining success: identifying factors that contribute to research productivity across librarianship and other disciplines. *Library and Information Research* Volume 38 Number 119 2014
- [17]. Kotrlik, J. W., Bartlett, J. E., Higgins, C. C., & Williams, H. A. (2002). Factors associated with research productivity of agricultural education faculty. *Journal of Agricultural Education*, 43(3), 1-10.
- [18]. Lertputtarak, S. 2008. "An Investigation of Factors Related to Research Productivity in A Public University in Thailand: A Case Study." (Dissertation). Victoria University.
- [19]. Eisenberger, R., Huntington, R., Hutchison, S., & Sowa, D. 1986. Perceived Organizational Support. *Journal of Applied Psychology*, 82(5), 812-820
- [20]. Ghozali, Imam. 2015. *Multivariate Analysis Application with SPSS Program*. Semarang: Diponegoro University.
- [21]. Margaretha, Meily dan Saragih, Susanti. 2012. Determinants of Lecturer Research Productivity as Implementation of Professional Integrity. *Zenit* Volume 1 Nomor 3 Desember 2012.
- [22]. Chen et al. 2010. Research Productivity of Accounting Faculty: An Exploratory Study. *American Journal of Business Education* – February 2010 Volume 3, Number 2.
- [23]. Cheng, Meng-Yu and Lei Wang. 2015. The Mediating Effect of Ethical Climate on the Relationship between Paternalistic Leadership and Team Identification: A Team Level Analysis in the Chinese Context". *J Bus Ethics*, No. 129, pp. 639 – 654
- [24]. Dessler, Gary. 2015. *Human Resource Management*. Jakarta: Salemba Empat.
- [25]. Directorate General of Higher Education Ministry of National Education. 2010. *Guidelines for Lecturer Workload and Evaluation of Higher Education* Tridharma: Jakarta.
- [26]. Fisher et al. 1993. *Human Resources Management 2<sup>nd</sup>*. Boston: Houghton Mifflin
- [27]. Fromm, Erich. 1975. *Man for Himself*. New York; Fawest Premier Books.
- [28]. Foley, Sharon, Ngo Hang-Yue., & Steven Lui. 2005. The Effects of Work Stressors, Perceived Organizational Support, and Gender on Work Family Conflict in Hong Kong. *Asia Pacific Journal of Management*, Vol.22, pp 237-256.
- [29]. Garnasih, Raden Lestari. 2017. Motivation: Expectancy Theory and Research Productivity. *Journal of Business and Management Inspiration*, Vol 1, (1), 2017, 53-62 e-2579-9401, p-2579-9312.
- [30]. Gomes, F.C. 2003. *Human Resources Management*. Yogyakarta: Andi Offset.
- [31]. Hasibuan, Malayu S.P. 2003. *Organization and Motivation; Basis for Increased productivity*. Jakarta: PT. Bumi Aksara
- [32]. Hutchinson, S. 1997. Perceived organizational support: further evidence of construct validity. *Educational and Psychological Measurement*, 57, 1025- 1034
- [33]. Luthans, F. 1996. *Organization Behavior*. New York: McGraw Hill Internasional
- [34]. Mathis.L.Robert dan Jackson.H.John. 2001. *Human Resources Management*, Jakarta: Buku kedua
- [35]. Pellegrini, Ekin K and Terri A. Scandura, 2008, "Paternalistic Leadership: A Review and Agenda for Future Research", *Journal of Management*, Vol. 34, No. 3, pp. 566 –593
- [36]. Robbins, Stephen P. 2001. *Organizational Behavior: Concepts, Controversies and Applications*. Edisi Bahasa Indonesia. Jakarta: PT. Prenhallindo
- [37]. Yang, Cheng Cheng. 2017. A Study of Factors Affecting University Professors' Research Output: Perspectives of Taiwanese Professors. *Journal of College Teaching & Learning* – June 2017 Volume 14, Number 1.