

**THE USE OF INFORMATION AND COMMUNICATION  
TECHNOLOGY (BY THE LECTURER OF ISLAMIC STATE  
UNIVERSITY OF RADEN FATAH PALEMBANG**

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**Abstract**

*This study aimed to examine the use of ICT by lecturers of Raden Fatah Islamic State University and the factors that influenced it. The research used a quantitative approach with survey method. The research was conducted in May-July 2014. The data was collected using a questionnaire. Respondents were lecturers of UIN Raden Fatah totaling 86 people. Analysis of data using univariate, bivariate, and multivariate techniques. The results showed that: 1) the use of ICT by lecturers of Raden Fatah Islamic State University was still not maximum, 2) the age, sex, level of education, teaching experience, and motivation of the lecturers does not significantly affect the use of ICT by lecturers, 3) the rewards factor had given significantly affect the use of ICT by lecturers, and 4) the rewards factor had the most influence on the use of ICT by lecturers of Raden Fatah Islamic State University.*

**Keywords:** *the Use of ICT, Lecturers, Raden Fatah State Islamic University*

**A. Introduction**

The college was expected to spawn a cadre leader of the nation in the future, so it was considered to affect the development and progress of the country itself. Correspondingly, both alumni of the college who were expected responsive to the problems that occurred in the

community or the environment and was expected to be able to appear to give a solution.

The existence of universities could not be separated from the existence and role of lecturers in it. However because of the lecturers so the college performance could be expected. Lecturers were required to carry out the study and conduct research and publish the results of his research, but it was also able to interact with the community with its competence. That was the essence of dharma tri universities. In Government Regulation No. 37 Year 2009 concerning Lecturer article 1, paragraph 1 stated that: "Lecturers were professional educators and scientists with the main task to transform, developed and disseminated science, technology, and art through education, research, and community service".

As in other professions were recognized, then it could be called a professional educator, it needed competence. As stated in article 2: "Lecturers were required to have academic qualifications, competence, teaching certificate, physically and mentally healthy, and meet the other qualifications required to place the unit in charge of higher education, as well as having the ability to realize the goal of national education". Thus, it was clear that one of the requirements to become a professional lecturer who had competence.

One of the competencies that had to be owned by a lecturer was pedagogical competence. In Law No. 14 Year 2005 on teachers and lecturers stated that pedagogical competence was "the ability to manage the learning of learners". This competence could be seen on the ability to plan learning programs, the ability to implement or manage the interaction of the learning process, and the ability to assess learning.

Relating to the ability in implementing interaction or managing learning process, the development of science and technology was rapidly increasing nowadays required every lecture to take advantage of ICT (information and communication technology). Use of ICT was believed to improve the quality of education (Noni, 2009), even increasing the effectiveness of learning. Results of research conducted by Kusnandar (2008) showed that 1) 10% of the information obtained

from reading the (text); 2) 20% of listening (sound); 3) 30% of viewing (graphics / images); 4) 50% of the seeing and listening; and 5) 0% from talking and doing.

Realizing the importance of the Use of ICT in the learning process, including in universities, the Indonesian Government had made various efforts to develop ICT infrastructure, ranging from efforts to develop the Palapa Ring, INHERENT network, and Jardikas. Palapa Ring was a government effort to build a national optical fiber network that reached as many as 33 provinces, 440 cities / regencies throughout Indonesia. Jardiknas was an ICT infrastructure in the form of a nationwide computer network, which was used for interconnection of schools (School Zone) in each city / county in Indonesia, developed by the Directorate of Technical and Vocational Education (PSMK) Mandikdasmen National Education Ministry. At the college level, the Directorate General of Higher Education (Higher Education) also helped develop a nationwide network infrastructure specifically between universities called INHERENT (Indonesian Higher Education Network).

Although the infrastructure was already available, but the utilization of ICT, especially in higher education could not be separated from the role of the faculty in order to maximize utilization. The fact today there were many lecturers from various universities which did not take advantage of ICT in the learning process or lecture conducted. This condition also occurred at Raden Fatah Islamic State University. Although today had been much effort made by the leadership in order to improve the ICT infrastructure at Raden Fatah Islamic State University, but in fact there was still a lecture that didn't use ICT yet, many lecturers didn't use e-mail, learning blog, and e-learning.

Many factors thought to influence the Use of ICT by the lecturer. If linked to the performance, the influenced factors were the lecturer's own individual, psychological and organizational factors. According to Gibson, et. al individual variables included: the ability and skills (mental and physical), background (family, social level, work experience), and demographic (age, origin, gender), psychological variables included

perceptions, attitude, personality, learning, and motivation, while the organizational variables included: resources, leadership, compensation, organizational structure, and working design (Djarkasih, 1997: 355). In accordance with Gibson's opinion, then the factors thought to influence the Use of ICT by the lecturers at Raden Fatah Islamic State University which would be examined in this study were age, gender, level of education, teaching experience, motivation and reward.

An understanding of existing condition of the Use of ICT by the lecturer of Raden Fatah Islamic State University and the factors that influenced it were interesting to study in order to find the best solution to overcome the problem of professionalism of teachers, especially at Raden Fatah Islamic State University.

This study aimed to examine the Use of ICT by the lecturers of Raden Fatah Islamic State University and the factors that influenced it. The scope of the factors studied limited to age, gender, level of education, teaching experience, motivation and reward. This restriction was based on factors which allegedly had direct influence on the use of ICT by the lecturer. Subject of the study was limited to the lecturers of Raden Fatah Islamic State University. This restriction was based on the grounds in order to facilitate generalization to the group of subjects with the same characteristics.

## **B. Method**

This study used a quantitative approach with survey method. According Singarimbun and Effendi (2004), characteristic of survey research was data gathered from numerous respondents using questionnaires. The research was conducted in 2014. The study population was all the lecturers of Raden Fatah Islamic State University. Given the large number of population, just sampled. The sampling technique used was cluster random sampling, namely the division of the population into sub-units that were smaller than each subunit was sampled randomly.

Data was collected using a questionnaire by asking closed questions to the lecturers into the sample. Questionnaire used consisted of four parts: a) the identity to identify the characteristics of the

respondents; b) A section questionnaire to collect data Use of ICT by the lecturers; c) section B questionnaire to collect data teacher motivation; and d) section C questionnaire to collect data on the perceptions of faculty remuneration derived. Testing the validity and reliability of the questionnaire prior to the instrument was done to obtain the valid and reliable data.

Data analysis technique used consisted of the analysis of univariate, bivariate, and multivariate analysis. Univariate analysis was done to describe each variable research. Bivariate analysis was conducted to determine the effect of each independent variable studied with the dependent variable using Chi-Square ( $X^2$ ) and determine the degree of influence of each independent variable on the dependent variable. While the multivariate analysis was used to determine the overall effect of the independent variable on the dependent variable, and to determine the dominant factors in the independent variables that affect the dependent variable, the analysis is used multiple logistic regression using a computer statistical program.

Respondents were lecturers of Islamic State University Raden Fatah totaling 86 people. Judging from its characteristics, the majority of respondents were male (54.65%); aged between 31-40 years (43.02%); educated S2 (91.86%); teaching experience of more than 10 years (52.33%); served on the faculties of MT and Teaching (40.70%); Islamic Theology and Islamic Thought (20.93%); Preaching and Communication (13.95%); Adab and Humanities (10.47%), Islamic (8.14%); and Economics and Business Islam (5.81%).

## **C. Result and Discussion**

### *1. Use of ICT by Lecturers of Raden Fatah Islamic State University*

Descriptive analysis showed that the mean score (mean) Use of ICT by the lecturers was 30.14, with the media 30, 30 mode, and standard deviation of 12.480. Furthermore, also note that of the 86 respondents, there were 47 (54.65%) with the use of ICT is low and 39 (45.35%) with high ICT utilization. Thus, the number of respondents with a low Use of ICT more than the respondents with high ICT utilization.

Based on these results it could be said that many lecturers at Raden Fatah Islamic State University was not maximized in the utilization of ICT, both as a reference source of knowledge as well as a learning tool. This was probably due to some constraints, both in terms of infrastructure that still support and in terms of lecturers concerned were still reluctant to use ICT.

Results of research conducted by Heriyanto (2013) showing that the Use of ICT influence on professional competence and pedagogical faculty. Professional competence was an extension of the personal capabilities that were formed with various capabilities so that was transformed into the ability to work is visible from work behavior in performing their duties and functions. Use of ICT supported personal ability to perform tasks and functions resulting in increased performance. In other words, the lecturer who utilized ICT in teaching likely performance in the tasks and functions was better than those who did not take advantage of ICT.

Moreover, theoretically the use of ICT by faculty could also affect the quality of student learning outcomes. Results of research conducted by Oktarina and Kuswanto (2010) which showed that the ICT-based learning was highly effective in increasing student understanding. It could be seen from the increasing student achievement after application of ICT-based learning.

## *2. Effect of Age toward the Use of ICT by Lecturer*

Results of statistical test Chi Square p value = 0.147 with  $p > 0.05$ , while the value Odds Ratio (OR) obtained at 0.308 with a degree of confidence interval 0.078 to 1.213. This meant, there was no difference in the use of ICT among young professors and lecturers old age. It could be concluded that there was no significant effect of age factor on the use of ICT by lecturers of Raden Fatah Islamic State University.

Results of this study confirmed that the age factor was not significant impact on the Use of ICT by faculty, where there was no difference between the use of ICT lecturers old age and younger ages.

This was probably due to the proportion of respondents aged young more than the old-old respondents.

The results were consistent with research conducted by Fauziah (2014) which showed that age did not affect the performance of lecturers in the implementation of the Tri Dharma University, including its performance in implementing the learning. The new age of factors could affect the use of ICT by the lecturer if the results in the lack of willingness of professors to learn. As well as the results of research conducted by Wiyati et al (the respondent teachers. It was found that one of the factors that affected the low ability of teachers in the mastery of ICT in the learning process was the lack of willingness to learn as a result of age who had stepped on old age, so there was no curiosity to learn to use ICT.

Results of this study were not consistent with theories Gibson, et.al. stated that age was one of the demographic factors were included in the individual variables that influenced the behavior or performance of work.

Although the results of this study showed there was no significant effect of age factor on the use of ICT by teachers, but proportionally younger respondents aged greater in number compared with respondents aged older. Thus, the necessary efforts and policies that was more serious than Raden leaders of Fatah Islamic State University to maximize the Use of ICT by young-aged lecturer.

### *3. Influence of Gender toward the Use of ICT by Lecturers*

Results of statistical test Chi Square p value = 0.430 with  $p > 0.05$ , while the value Odds Ratio (OR) obtained at 1.551 with a degree of confidence interval 0.659 to 3.653. This means, there was no difference between the use of ICT lecturer male and female teachers. It could be concluded that there was no significant effect of gender factor on the use of ICT by lecturer of Raden Fatah Islamic State University.

Results of this study confirmed that the gender factor was not significant impact on the Use of ICT by lecturers, where there was no difference in the use of ICT between lecturers-sex male and female. The

results were consistent with research conducted by Heriyanto (2013), which indicated that there was no influence of gender on pedagogical competence and professional lecturers of Sriwijaya STAB Tangerang, Banten. In addition, research conducted by Cathrine Tomte also showed that the use of ICT in education was not only dominated by men, women and even higher in the utilization of social media.

The results were consistent with the opinion of Shye (2001) which stated that there was no difference in labor productivity between male employees and female. However, these results were not in line with Gibson's theory, et.al stated that gender was one factor of the demographic variables that affected behavior, including the use of ICT by lecturers' behavior.

Although the results of this study showed that there was no significant effect of gender factor on use of ICT by teachers, but in proportion of male respondents were greater in number than the female respondents. Thus, the necessary efforts and policies that was more serious than Raden Fatah Islamic State University leaders to maximize the Use of ICT by male lecturers.

#### *4. Effect of Educational Experiences toward Use of ICT by Lecturer*

Results of statistical test Chi Square p value = 1,000 with  $p > 0.05$ , while the value Odds Ratio (OR) were obtained for 1,689 with a level of confidence interval 0.147 to 19.357. This meant there was no difference in the use of ICT among highly educated professors and lecturers with little education. It could be concluded that there was no significant effect on the utilization factor of the level of education of ICT by lecturer of Raden Fatah Islamic State University.

Results of this study confirmed that the educational level factor was not significant impact on the Use of ICT by lecturer, where there was no difference in the use of ICT among the highly educated and less educated lecturers. Results of this study were not consistent with research conducted by Netty (2012) which showed that the educational background of lecturers affected the performance of lecturers. Results of research conducted by Mundarti (2007) also showed that there was a



relationship between education significant on the performance of lecturers ( $p = 0.038$ ).

Results of this study were also not in line with Maslow's theory which stated that a person's level of education could influence the ability of meeting the needs which in turn affected the motivation and work behavior (Maslow, 1992).

Although the results of this study showed no significant effect on the utilization factor of the level of education of ICT by teachers, but proportionally higher educated respondents are greater in number than the less educated respondents. Thus, the necessary efforts and policies that was more serious than Raden Fatah Islamic State University leaders to maximize the Use of ICT by highly educated lecturers.

##### *5. Effect of Teaching Experience toward the Use of ICT by Lecturers*

Results of statistical test Chi Square  $p$  value = 0.124 with  $p > 0.05$ , while the value Odds Ratio (OR) obtained at 0.463 with a degree of confidence interval 0.195 to 1.101. This meant there was no difference in the use of ICT among faculty who had long experience in teaching and lecturers who had experience of new teaching. It could be concluded that there was no significant effect of teaching experience factor to the use of ICT by lecturers of Raden Fatah Islamic State University.

Results of this study confirmed that the factor of teaching experience no significant impact on the Use of ICT by faculty, where there was no difference between the use of ICT experienced professor who taught the old and the new teaching experience. The results were consistent with research conducted by Fauziah (2014) which showed that the old factor did not affect the performance of the work of lecturers in the implementation of the Tri Dharma University. However, these results were not in line with research conducted by Chotim (2011: 02) which showed that there was significant influence on the performance of work experience lecturer. Results of this study were also not in line with Atkinson's theory which stated that the old factors influencing the activity of working one's work (Atkinson, 2004).

Although the results of this study showed no significant effect of teaching experience factor to the use of ICT by teachers, but in proportion of respondents who experienced new teaching was greater than the number of respondents who experienced a long teaching. Thus, the necessary efforts and policies that was more serious than Raden Fatah Islamic State University leaders to maximize the Use of ICT by new experienced lecturers.

#### *6. Effect of Motivation on Use of ICT by Lecturers*

Results of statistical test Chi Square p value = 0.430 with  $p > 0.05$ , while the value Odds Ratio (OR) obtained at 1.551 with a degree of confidence interval 0.659 to 3.653. This meant that there was no difference in the use of ICT among professors who had high motivation and lecturers who had low motivation. It could be concluded that there was no significant effect on the motivation factor of ICT utilization by lecturer of Raden Fatah Islamic State University.

Results of this study confirmed that motivational factors were not significant impact on the Use of ICT by lecturers, where there was no difference in the use of ICT among professors who had high and low motivation.

Results of this study were not consistent with research conducted by Ani Nur Fauziah (2014) which indicated that the motivation affected the performance of lecturers in the implementation of the Tri Dharma University. Results of research conducted by Mundarti (2007) also showed that there was a relationship between motivation and significant performance lecturers in implementing the learning process.

Results of this study were also not in line with the theory of Gibson et al. which stated motivation as one of the factors of individual psychological variables that could affect work behavior or performance.

Although the results of this study showed no significant effect on the Use of ICT motivational factor by faculty, but in proportion of respondents who had low motivation was greater than the number of respondents who had a high motivation. Thus, the necessary efforts and policies that was more serious than Raden Fatah Islamic State

University leaders to maximize the Use of ICT by lecturers had low motivation.

#### *7. Influence Rewards toward use of ICT by Lecturers*

Results of statistical test Chi Square p value = 0.046 with  $p < 0.05$ . This meant there were differences in the use of ICT among professors who perceived rewards gained sufficient and professors who perceived rewards earned less. It could be concluded that there was significant influence reward factor against the use of ICT by lecturer of Raden Fatah Islamic State University. Furthermore, the influence factor of remuneration to the use of ICT by faculty known from the value Odds Ratio (OR) were obtained, which amounted to 0.356 with a degree of confidence interval 0.142 to 0.897. That was, respondents who perceive remuneration derived by 0.356 times less likely to use ICT was low compared to respondents who perceive rewards earned enough.

Results of this study confirms that the reward factor significant impact on the Use of ICT by faculty, where there are differences in the use of ICT among professors who perceive rewards earned enough and who perceive rewards earned less. This was in line with research conducted by Mundarti (2007), which indicated that there was a relationship between the perception that significant rewarded with a lecturer's performance in implementing the learning process.

Results of this study were also in line with the opinion of Siagian (1995) that the remuneration is closely related to a person's job performance. Rewards affected one's motivation and motivation could affect job performance.

#### *8. The Factor that had the most impact Against Use of ICT*

In this research there were six variables were supposed to influence the use of ICT by lecturer of Raden Fatah Islamic State University, such as age, sex, level of education, teaching experience, motivation and reward. To select independent variables which could be incorporated into the multivariate model was based on the results of the bivariate analysis, where the variables had a value of  $p < 0.25$  could be used as a

candidate to be included in the multivariate model. The result of the bivariate analysis was done between each independent and dependent use of ICT variables could be seen in Table 1.

From Table 1 showed that there were three independent variables that had a value of  $p < 0.25$ , namely: age, teaching experience, and in return, so that these three variables could be used as a candidate to be included in the multivariate model.

**Table 1**

*Result of Bivariate Independent and Dependent Variables Analysis*

No.	Variable	Score $p$
1.	Age	0,147
2.	Gender	0,430
3.	Education Level	1,000
4.	Teaching Experience	0,124
5.	Motivation	0,430
6.	Rewards	0,046

Then it would be done by arranging the basic model. Arranging the model was done hierarchy by putting all candidate variables in the model then seeing  $p$ -Wald ( $p < 0,05$ ), if  $p$ -Wald was not significant thus the variable was issued by the model orderly starting from greater  $p$ -Wald (Hastono, 2007). Adapun nilai  $p$ -Wald of three independent variables which involved in multivariate model could be seen in table 2.

**Table 2**

*Result of Multiple Logistic Regression Analysis among Age, Teaching Experience and Rewards and use of ICT Variable*

Variables in the Equation							
		B	S.E.	Wald	df	Sig.	Exp (B)
Step 1 <sup>a</sup>	Age (1)	.969	.780	1.544	1	.214	2.636
	Teaching	.386	.500	.598	1	.439	1.472

	Experience (1)						
	Rewards (1)	.997	.487	4.186	1	.041	2.709
	Constant	-1.566	.703	4.965	1	.026	.209
a. Variable(s) entered on step 1: Age, Teaching Experience, Rewards.							

From the table 2 showed that Rewards variable had  $p$ -Wald  $< 0,05$ , then  $p$ -Wald Age dan teaching experience variables had  $p$ -Wald  $> 0,05$ . Thus it needed to issue model multivariat variable. Issued variable was done continuously and in a series started by greater  $p$ -Wald. Because it showed that variable had greater  $p$ -Wald was variabel teaching experience, thus the next such variable wasn't involved in the model. The result of arranging basic model without teaching experience could be seen in table 3.

**Tabel 3**  
*Result of Multiple Logistic Regression Analysis between Age and use of ICT Variable*

Variables in the Equation							
		B	S.E.	Wald	df	Sig.	Exp (B)
Step 1 <sup>a</sup>	Age (1)	1.207	.718	2.826	1	.093	3.343
	Rewards (1)	1.050	.482	4.751	1	.029	2.857
	Constant	-1.589	.705	5.083	1	.024	.204
a. Variable(s) entered on step 1: Age, Rewards.							

From table 3 it could be seen that age variable obtained  $p$ -Wald  $> 0,05$  it was greater than fee variable, thus such variable wasn't involved in the model. The result of the basic model arrangement without age variable could be seen in table 4.

**Tabel 4**  
*Result of Multiple Logistic Regression Analysis between Rewards  
 with use of ICTVariable*

		<b>Variables in the Equation</b>					
		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1 <sup>a</sup>	Rewards(1 )	1.031	.471	4.795	1	.02 9	2.805
	Constant	-.539	.275	3.853	1	.05 0	.583
a. Variable(s) entered on step 1: Rewards.							

From Table 4 showed that the variable remuneration had Wald p-values  $<0.05$ . That there was a significant influence on the remuneration factors ICT utilization by lecturer of Raden Fatah Islamic State University.

Due to the influence of independent variables on the dependent variable only one, namely the variable remuneration, it was not done testing the interaction. Thus, the only factors that influenced and the most influence on the use of ICT by lecturer of Raden Fatah Islamic State University among the factors examined in this study is the reward.

The findings in this study indicate that the reward important consideration in explaining the use of ICT by lecturer of Raden Fatah Islamic State University. If professors feel rewarded enough then it would be able to improve their behavior to take advantage of ICT. Age, gender, level of education, teaching experience, and motivation in this study proved to have no effect on the use of ICT by the lecturer. It also showed that the degree of locus of control tend to lecturers external, meaning that internal aspect is not too significant.

#### **D. Conclusion**

Based on the results of research and discussion could take several conclusions as follows:

1. The use of ICT by lecturer of Raden Fatah Islamic State University was still not optimal. Based on the results of descriptive

analysis of ICT utilization data, found that respondents with lower Use of ICT more (54.65%) compared to respondents with high ICT utilization (45.35%).

2. There was no influence of age, sex, level of education, teaching experience, and motivation of the use of ICT by lecturers of Raden Fatah Islamic State University.
3. Factor in return affected the use of ICT by lecturer of Raden Fatah Islamic State University.
4. The reward factors affected most impact on the use of ICT by lecturer of Raden Fatah Islamic State University Palembang was the reward factor.

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