Full Length Research

The Effort to Improve Participation of Lecturers in Implementing Qualifying Research in the Environment of Medan State University

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The research institute is one of the institutions that become an important milestone in Medan State University which strives to become one of the institutions that can contribute to research. To make the research institute has a good reputation, it will be examined the obstacles that occur in the field to get a solution in order to increase the participation of lecturers in carrying out qualifying research in Unimed. Qualifying research should be research that supports Unimed vision. The research is in accordance with the research institute's strategic plan, roadmap and research theme. The study will be conducted for three months, to see the participation of lecturers in researching so the populations in this study are all lecturers in Unimed. This study uses convenience technique (*Convenience sampling*) which is done with sampling in all faculties.

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INTRODUCTION

In Law Number 14 of 2005 Article 60 paragraph 1 states that lecturers are obliged to carry out education, research and community service. This shows that increasing the ability of lecturers in research, theoretically or the ability of writing is very important. This increase of capability is beneficial for increasing productivity and the quality of research activities of Medan State University lecturers who later can become valuable contributions to the development of scientific disciplines and teaching professions.

Research's quality improvement is seen from the total number of Unimed lecturers in 2017 based on information from the Unimed Personnel Department totaling 938 lecturers. This is not comparable with the amount of research both national competitive research funded by DRPM and local research funded by BOPTN Unimed. The number of lecturers consisting of seven faculties varies greatly. The Faculty of Education totals 81 lecturers, the Faculty of Languages and Arts totals 181 lecturers, the Faculty of Mathematics and Natural Sciences totals 228 lecturers, the Faculty of Social Sciences totals 90 lecturers, the Faculty of Engineering totals 151 lecturers, the Faculty of Sports Sciences totals 84 lecturers, the Faculty of Economics totals 123 lecturers . After data collection for the last three years, the total number of lecturers is not proportional to the number of research titles.

Looking at the conditions and situations above, random interviews were conducted with several Unimed lecturers who had never done the research. The results of the interview mentioned the obstacles in conducting research, such as complicated administration, lack of teams, proposal recruitment systems, information that did not arrive and did not know what themes to examine. Unimed lecturers are researchers who have obligation to conduct research. Data in the field have been seen so far that only those who carry out research on certain lecturers. This happens in almost all faculties in Unimed. Constraints that occur at this time cause lecturers are not interested in researching.

Data collection for the last three years, the research theme was matched with Unimed's vision which is becoming a university that is excellent in the fields of education, industrial engineering and culture. The amount of research is seen from each field with funding sources. The quantity of lecturers' research titles in Unimed consists of 657 Education titles, 287 industrial engineering titles and 101 cultural titles. The chart below gives an explanation of the recap according to the fields:

Judging from the interest of lecturers to carry out qualifying research activities is still relatively low and seems only to fulfill the performance and credit numbers, this is done by lecturers for promotion without providing research results that can be followed up for the development of science, technology, art and culture. Research that has been done by lecturers is still at the level the researches are stored in the library, not yet on the application of the research results. Therefore, the research to increase the participation of lecturers in carrying out qualifying research in Medan state university is very important to be carried out.

Therefore this research aims to increase the participation of lecturers in carrying out qualifying research in Medan State University.

The specific objectives of this study are:

1. Knowing the inhibiting factors of lecturers in conducting research in Unimed.
2. Increasing the participation of lecturers in conducting research in Unimed.
3. Striving for researchers to make qualifying research in Unimed.

RESEARCH METHOD

Research Method

This research was conducted in Unimed at the research institute's work unit. The time of this research is planned for 3 (three) months starting in July to September 2017.

Population and Sample

To see the participation of lecturers in researching so the population in this study is all Unimed lecturers. This study uses proportional technique. According to Sugiyono (2001: 58) this technique is used if the population has members / elements that are not homogeneous and have proportional strata. Samples are taken in proportion from each faculty that exists.

Type and Source of Data

The data types of this study are primary data and secondary data. Primary data comes from questionnaires given to respondents, namely Unimed lecturers who were taken as samples. Then secondary data is available supporting data and with regard to research problems collected by documentation techniques from various documents available at Unimed Research Institute as a reference.

Collecting Data Technique and Research Instrument.

The data collection techniques which are used are;

(1) Questionnaire / research instrument
(2) Interviews,
(3) Documentation

The research instrument was given to lecturers who had been chosen and determined in advance based on the sampling technique to be asked to fill out a questionnaire. Interviews are used to check (crosscheck) various relevant sources, namely lecturers, laboratory staff, administrative staff that supports academic activities.

Data Analysis Technique

The collected data was analyzed descriptively by using tables and percentages. Data analysis techniques in this study were carried out in several stages, namely:

1. The first stage, all data is tabulated and then analyzed by using the descriptive statistical approach by looking at the mean, median, mode and cumulative data which were obtained both in absolute numbers and percentage levels. Data calculated by descriptive statistical approach was processed with the help of statistical software SPSS version 21, and then also presented in graphical form.
2. The second stage, all data presented in graphical form is discussed by the research team to make justification for the explanation of the data in order to take the conclusion of the research
3. After the discussion and justification of the research team, then in the third stage the results of the study are discussed more deeply with the relevant parties in a focused discussion forum (Focus Group Discussion) in order to get input on improving the results of the study.

RESULT AND DISCUSSION

Result and Discussion

Research has been conducted by giving questionnaires to researchers, after that the researcher gives a check list (√) to each statement. The questionnaire contains supporting and inhibiting factors for 350 lecturers in the Medan State University and 50 lecturers were taken as random samples. Supporting and inhibiting factors are compiled based on three sources consisting of motivation based on the results of interviews to several lecturers related to the administrative system of the Unimed Research Institute, and produce as many as 13 supporting factors and 14 inhibiting factors. The data obtained were then analyzed by descriptive statistical method, to obtain the frequency of respondents' answers on supporting factors and inhibitors for Medan State University lecturers.

After analyzing each questionnaire there are five main factors which are the sources of motivation for conducting research through the Medan State University Research Institute respectively: (a) collecting credit points, (b) ownership of scientific work, (c) completing Three duties of Higher Education , (d) fulfillment of curiosity, and (e) the pleasure of conducting research. The five main factors which are the obstacles to conduct research through the Medan State University Research Institute are: (a) the narrowness even though making a research proposal, (b) the administration and bureaucracy of the UNIMED

Research Institute is inefficient, (c) bustle of teaching, (d) selection systems that are not transparent, and (e) other bustles, such as occupying structural positions in the faculty. The main supporting factor that is different from the general pattern is "increasing income" while the main inhibiting factor that is different from the general pattern is "insufficient funds", difficult to obtain research themes, not friendly with IT, lack of guidance from the Faculty and experienced lecturers in researching, and difficulties in determining the methodology.

This is in line with the result of the 2017 research mapping which got decreased compared to the number of studies in 2016. The following can be seen in the Figure 1.
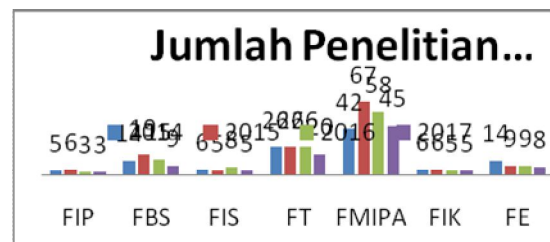

Figure 1. The result of the 2017

Research quality improvement is seen from the total number of Unimed 2017 lecturers based on information from the Unimed Personnel Department totaling 938 lecturers. This is not comparable with the amount of research both national competitive research funded by DRPM and local research funded by Unimed BOPTN. The number of lecturers consisting of seven faculties varies greatly. The Faculty of Education totals 81 lecturers, the Faculty of Languages and Arts totals 181 lecturers, the Faculty of Mathematics and Natural Sciences totals 228 lecturers, the Faculty of Social Sciences totals 90 lecturers, the Faculty of Engineering totals 151 lecturers, the Faculty of Sports Sciences totals 84 lecturers, the Faculty of Economics totals 123 lecturers . After doing data collection for the last four years, the total number of lecturers is not proportional to the number of research titles; this can be seen from the graph above. Based on the results of interviews conducted by several lecturers that other inhibiting factors caused by the selection being conducted was increasingly stringent and lecturers who are unfamiliar with online administration so it caused the proposals (research proposals) did not pass the existing selection stage. They considered that the administration of the initial selection of proposals was very complicated; many items had to be filled in the administration online. (Table 1)

Related to the Higher Education Long-Term Development Policy as written in the Higher Education Long Term Strategy (HELTS) 2004-2010, especially in improving the nation's competitiveness, Directorate of Research and Community Service (DP2M), General

Tabel 1. Sebaran Penelitian Berdasarkan Sumber Pendanaan 2017

No	Sumber	Pend	Rek. Industri	Budaya	Jml
1	DRPM	37	58	0	95
2	Mandiri	14	1	0	15
3	BOPTN	199	0	0	199
Total		250	59	0	309

Directorate of Higher Education, Department of National Education, has tried to take strategic steps to reach this goal. Among them are the provision of research grants, community service, scientific article writing and encouraging the acquisition of Intellectual Property Rights (IPR) for lecturers / research.

Based on the facts that there are steps above, it is not enough to create a conducive academic atmosphere to lead to an increase in national competitiveness, because we still need efforts to improve research management capabilities, application of research findings, dissemination of research results through scientific article writing and the results of other studies in the form of inventions by lecturers / researchers in universities (PT). Efforts to improve the competitiveness are required strengthening program of research management in university. Therefore, research activities, community service, scientific article writing and acquisition of Intellectual Property Rights (IPR) produced in an advanced and conducive academic atmosphere are deemed necessary to improve good governance. Good governance is part of the application of management principles in research management in university.

In addition to good governance, lecturers / researchers will also be more stable if they develop in a research institution, community service, scientific article writing and acquisition of Intellectual Property Rights (IPR) which are managed in healthy organizations. Therefore, the future of the institutions that manage it need to be refined through a strengthening program, which is one of the missions of this activity. Going forward, the role of research institute in Indonesia is expected to be more independent.

The development of Higher Education in the long term is expected to produce three important indicators, namely increasing national competitiveness, education managed within the framework of autonomy, and three duties of higher education managed within the framework of a healthy organization. Because the aspect of research is one of the missions of the birth of higher education, so the research activities are also an inseparable part from the achievement of the success of the 3 pillars of the ideals of developing higher education.

The list of state competitions clearly shows that Indonesia is still far below compared to other countries. Research activities are seen as one of the elements that greatly influences the acceleration of increasing national competitiveness. The role of research institutions in higher education is still limited and revolves around the administration of research. Indeed, research institution needs to apply healthy and dynamic management principles. Institutions need to be formulated in the framework of advancing universities, legal aspects, leadership, pushing research priorities, utilizing information systems, and building all forms of internal and external relations. Without adequate policies and mandates from the Rector, the research and service institutions run on a narrow attachment and their space for movement is limited. If this is allowed, the academic atmosphere that needs to be built by research institutions and services is minimal, even invisible.

In connection with those above, an important stage in the development of research is towards good university governance by resolving first the internal management issues in the institutions that conduct research management in universities. The internal management issue that must be prioritized is handling research, in addition to developing research personnel, providing research funds, growing research atmosphere, and functional relations of research institutions with internal organizations in higher education, as well as stakeholders in a broader context. In the course of time, slowness in producing research products and the survival of researchers is also caused by the incomplete management of research institutions. These include legal aspects, organizational relations, planning, coordination, monitoring and evaluation, data collection, and financial management aspects.

It was also realized that more and more lecturers were credible individuals, but they had not worked institutionally. This may be due to unclear policies and regulations regarding research institutions. As a result, the relationship between researchers and research institutions, faculties, departments, laboratories and study centers is not clear. This certainly triggers the research process carried out individually.

Realizing all these shortcomings, efforts are needed to strengthen institutions so that the institutions which are responsible on developing research activities can carry out their functions in a directed manner, produce qualifying research products, and socio-economically can contribute to the welfare of the Indonesian people. The objectives of this research scheme are: (1) Establishment of the principles of management of institutional research / community service organizations / periodic scientific management / healthy management of IPR in higher education, including all aspects that support the

implementation of internal management systems; (2) Establishment of research institutions / community service / periodic scientific management / management of IPR that are able to contribute concretely in the development of science and technology and play a role in facilitating research and / or facilitating its use (dissemination); (3) The creation of a healthy, transparent, accountable academic climate in the aspects of research / community service / periodic scientific management / management of IPR, (4) The creation of healthy, dynamic and dignified institutions to manage research / community service / periodic scientific management / management of IPR.

Each proposer, in accordance with his group, is so as to adapt 10 outcomes that are most relevant to strengthen his institution. In addition, all proposed activities need to maintain the road map for solving problems in accordance with the map of the problem at hand. The ten outcomes are as follows:

1. Establishment of internal and external organizational relations of research institutions.
2. Complete and continuous data and research information systems are produced.
3. Completion of strategic planning in research institute which is part of the university's strategic planning
4. The formulation of the institutional aspects of research, for example the procedures for selecting institutional and staff leaders, and financial rules.
5. Compilation of research institute standard operating procedures (SOP) in universities.
6. Increasing the role of institutions in developing research priority maps which will be carried out in the future by research center units, departments, and laboratories.
7. Increasing the role of institutions in improving human resource for research.
8. Establishment of an institution as an information center for the development of science and technology and facilities that support it.
9. The development of a research system that supports the teaching and learning process.
10. Facilitated research institutional cooperation with other parties.

CONCLUSION

Based on the results of the research, it can be concluded that there are five main factors which become the sources of motivation for conducting research through the Medan State University Research Institute respectively: (a) credit point collection, (b) ownership of scientific work, (c) completing the Three Duties of Higher Education, (d) fulfillment of curiosity, and (e) the pleasure of conducting research. The five main factors which are obstacles to conducting research through the Medan State University Research Institute are: (a) the narrow time when making research proposals, (b) the administration and bureaucracy of the UNIMED Research Institute are inefficient, (c) bustle of teaching activity, (d) selection systems that are not transparent, and (e) other activities, such as occupying structural positions in the faculty. The main supporting factor that is different from the general pattern is "increasing income" while the main inhibiting factor that is different from the general pattern is "insufficient funds", difficult to obtain research themes, not friendly with IT and lack of guidance from Faculties and senior lecturers, difficulties in methodology .

Efforts to improve competitiveness are required a strengthening program of research management in higher education. Therefore, research activities, scientific article writing and acquisition of Intellectual Property Rights (IPR) which are produced in an advanced and conducive academic atmosphere are deemed necessary to improve good governance. Good governance is part of the application of management principles in research management in higher education.

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