



The Grand Design of LPPM UNNES Innovation in Supporting UNNES Towards PTNBH

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Abstract. This research aims to analyze the grand design of the Institute for Research and Community Services (LPPM) UNNES innovation in supporting UNNES towards PTNBH. This research is a qualitative descriptive study. The types of data used in this study are divided into two, namely primary data and secondary data. The primary data are obtained in the form of verbal/words and behavior of subjects (informants) related to the research. The selection of informants was done by using a purposive sampling technique. The informants in this study consist of several stakeholders related to the research topic. The primary data in this study are obtained through in-depth interviews and Focus Group Discussion (FGD) to complete the required primary data. This study used qualitative data analysis by using data reduction. Data reduction is done by focusing data or summarizing data on important things and making categories based on the type or kind and making data that is not needed. The result of the study indicates that LPPM UNNES as one of the implementing institutions for the tri dharma of higher education has the task of preparing materials for policy formulation and implementing activity programs in the field of research and community service. In carrying out its duties, LPPM UNNES carries out functions that can be accounted for rationally, proportionally, and objectively. LPPM UNNES is also one of the institutions that has a strategic role in supporting the acceleration of UNNES towards Legal Entity State Universities (PTNBH). In LPPM UNNES, there are five centers and three groups that have their respective main tasks and functions. Each center and group is obliged to have an innovative program every year.

Keywords: Grand Design · Innovation · LPPM · UNNES

1 Introduction

Indonesia is a country that has abundant potential resources, both human resources and natural resources. This condition is certainly a distinct advantage in creating superior and competitive products. However, in the reporting of the Competitiveness Index issued by the World Economic Forum (WEF), especially in Indonesia, there are several criteria that indicate the low capacity of Indonesia. The criteria that are still relatively low for Indonesia include institutions, innovation: innovation power, and technology readiness: the level of technological readiness produced by Indonesian research institutions. To encourage the improvement of the three criteria, several efforts are being carried out,

among others, by supporting the quality of the innovative products produced so that it is able to encourage technological readiness on industrial-production scales.

The dissemination of higher education inventions through commercialization faces challenges, pros and cons, especially in terms of the tasks and functions of higher education. On the other hand, the development of the Entrepreneurial University concept encourages entrepreneurial spirit where higher education not only creates workers but also entrepreneurs needed by the nation. Invention products are generally technology-driven, not market driven. According to Crawford and Benedetto (2008), invention products controlled by technology (technology drivers) have laboratory power, while invention products controlled by the market (market drivers) have strengths based on consumer problems. Another approach is a combination of the two. The list of inventions can be identified, grouped (clustered), evaluated, and determined its development.

In the midst of this swift current of globalization, proper management of higher education is highly needed to increase the role of each academic community in the development of science and technology (Scott, 1988; Peter, 2001). The Fourth Generation Industrial Revolution (Industrial Revolution 4.0) which is marked by the birth of artificial intelligence, internet of things, digitalization, biotechnology, and nanotechnology in various forms of products and services has and will change almost all aspects of life. These changes are triggered by technological advances that have impacts on changes in production patterns based on automation and robotization, distribution patterns, consumption, business, and operations. These fundamental changes have broad impacts on Indonesia, particularly in the education and employment sectors.

In this era, the implementation of higher education based on IT and online learning has become a common requirement. To answer the challenges and developments of science and technology in the era of globalization, UNNES as part of government institutions in setting directions, policies, and strategic programs definitely still has to be framed in national policies. LPPM UNNES as one of the implementing institutions for higher education tri dharma has the task of preparing materials for policy formulation and implementing activity programs in the field of research and community services. If it is associated with the mission of UNNES, then the role and function of LPPM become more strategic. Even, LPPM must be able to oversee and control the quality of research implementation and community services and all of its outputs. This study aims to analyze the grand design of LPPM UNNES innovation in supporting UNNES towards PTNBH.

2 Literature Review

2.1 Policy Implementation

Implementation is an important step after a policy is formulated, without implementation, no matter how good the formulation of a policy, will not mean anything. Policy implementation is a greatly important stage in the overall policy structure due to through this procedure the overall policy process can be influenced by the level of success or failure of achieving goals. Policy implementation according to Rian Nugroho (2012) in principle is a way for a policy to achieve its goals. No more and no less. To implement a public policy, there are two options of the existing 18 steps, which are directly

implementing it in the form of a program or through a derivative policy formulation or derivative of the public policy.

Meanwhile (Suranto, 2014) argued that policy implementation can be interpreted as actions taken by the government or the private sector, either individually or in groups to achieve the goals that have been formulated in the policy. In simple terms, policy implementation activities are activities that describe abstract policy formulations into concrete actions, or in other words, the implementation of policy decisions (formulations) concerning managerial and technical aspects. The implementation process will begin after the goals and targets have been set, activity programs are prepared, and funds are available and channeled to achieve these targets.

3 Innovation

The modern understanding of innovation was first stated in the Oxford English Dictionary 1939 edition which said that the process of creating new products (goods or services), the introduction of new methods or ideas, or the creation of incremental changes or improvements. So for that, public service innovation means a new renewal/ creation/ creativity in the implementation of public services. New ideas in achieving goals and meeting community needs and contributing to service users in terms of service quality (Sururi, 2016). The innovation process can be seen from several aspects according to Sururi (2016), as follows:

- a. Innovation typology. Innovation typology is divided into innovation in service methods and innovation in strategy or policy. Innovation in service methods is a new change in terms of interaction between service providers and customers while strategy or policy innovation is seen from the new vision, mission, goals, and strategies.
- b. The level of innovation is divided into 3, which is: first, incremental innovation which means making small changes to an existing process or service, not changes to the organizational structure. The second is radical innovation which means fundamental changes in public services. In other words, the introduction of new ways in an organization and service. Third, transformative innovation is a dramatic change in organizational structure.
- c. Innovation category. According to there are two categories of innovation which are; sustaining innovation (continuous innovation) which is a new change but still in the current or existing condition or product. Discontinuous innovation is a completely new change and has never existed before. According to (Setijanigrum, 2017) innovation in the private sector with innovation in the public sector is extremely different. Innovation in the public sector is based on the desire to provide public services to the community, not the pursuit of profit. The community is positioned as a customer who must be served and treated fairly and equally without any discrimination. According to Setijanigrum (2017), the concept of innovation is the creation, development, and adaptation of new ideas, concepts, or behaviors. Thus, it can be said that innovation is the activity of creating or developing new ideas, and implementing or adapting activities from these new ideas.

According to Manual Oslo: Organization for Economic Cooperation and Development explains what is meant by innovation in an organization is the incorporation of new services, improvements to the provision of existing services, and an increase in the number of existing service functions to be made more useful, efficient, and to improve quality and also with innovation having an impact on infrastructure expansion. The existence of innovation is adjusted to the current situation (Said, 2019). Meanwhile, according to Susanto in Pitriyanti & Harsasto, (2019), innovation is not only limited to building and making changes but more than that. Innovation is being able to take advantage of new ideas to create new products, processes, systems, or services. Meanwhile, Hamel said that innovation is a transition from traditional processes, practices, management principles, or changes from the old organization and has an impact on current management. Albury argued that innovation has a close relationship with new ideas that have benefits. Innovations that do not have new ideas will mean nothing if they are not included with the value of the benefits of their presence (Sururi, 2019).

Putri & Amal (2019) said that innovation in the public sector is only an option or even a burden since initially, innovation in government was considered not too important. However, since many public problems have become increasingly complex, only then the government has made innovations in the administration of government. Innovation is needed in the public sector since it relates to the lives of many people which are always changing with the times. Innovation according to John Clark and Ken Guy is the process and/or result of developing the use of mobilization of knowledge, skills (including technological skills), and experience to create or improve goods/services, processes, and/or a new system which is able to provide meaningful or significant value. Innovation as renewal of existing goods/services or developing new goods/services (Wijayanti, 2019).

4 Methods

This research is a qualitative descriptive study. Quantitative descriptive research is research that consists of formulating a problem, compiling a model, collecting data, analyzing the results, and implementing it (Sugiyono, 2017).

Meanwhile, qualitative research emphasizes analysis of the inductive inference process, meaning that data are collected, analyzed, and abstracted, and theories will emerge as dynamics as the relationship between observed phenomena using scientific logic (Moleong, 2014). For that purpose, the qualitative method is carried out using interview techniques and Focus Group Discussion (FGD). This study attempts to develop strategic innovations needed by LPPM UNNES to support the acceleration of UNNES towards PTNBH.

5 Results and Discussions

5.1 General Description of Universitas Negeri Semarang

In carrying out its duties and functions, Universitas Negeri Semarang organizes higher education and is responsible vertically to the Ministry of Research, Technology, and Higher Education of the Republic of Indonesia in this case the Directorate General of

Higher Education. In the implementation of higher education, Unnes organizes various levels of education, namely Diploma, Bachelor, Master, and Doctoral programs in various disciplines. In carrying out its duties and functions, Unnes formulates a vision based on four strong commitments from the entire Unnes academic community. The four commitments are (1) commitment to conservation, (2) commitment to building a healthy organization, (3) commitment to achieving excellence in the era of increasingly strong global competition, and (4) commitment to realizing prosperity for all academic community, alumni, society, nation, and state, based on excellent public service performance. The four commitments are expected to lead to the realization of Unnes which is able to excel at the international level and bring Unnes into the ranks of *World Class Universities*.

Universitas Negeri Semarang has a vision to become a conservation-oriented university with international reputation. Meanwhile, UNNES has missions including 1) Organizing and developing education in superior educational and non-educational programs with conservation insight and international reputation; 2) Developing and creating science, technology, art, culture, civilization, and sports with conservation insight and international reputation; 3) Disseminating science, technology, art, culture, and sports with conservation insight and international reputation; 4) Building and developing institutional collaboration in supporting institutional strengthening with international reputation.

5.2 The General Description of LPPM Universitas Negeri Semarang

LPPM UNNES as one of the implementing institutions for tri dharma of higher education has the task of preparing materials for policy formulation and implementation of activity programs in the field of research and community services. In carrying out its duties, LPPM UNNES carries out functions that can be accounted for rationally, proportionally, and objectively. This is in accordance with the position, tasks, and functions of the LPPM UNNES which must be able to contribute to the achievement of the vision and mission of UNNES through the formulation of policies and activity programs in the field of research and community services.

5.3 The Strategy Innovation of LPPM UNNES

The Innovation of the Center for Journal and Publication Development

The center for journal and publication development at LPPM UNNES is in charge of coordinating and managing journals at the Universitas Negeri Semarang. UNNES currently has 125 journals indexed in Sinta as can be seen in Fig. 1

Based on Fig. 1, it can be explained that UNNES has 125 journals indexed in Sinta, both Sinta 1 to Sinta 5. If detailed in more detail, the journals owned by UNNES are spread across various faculties as follows (Fig. 2).

Efforts to improve the quality of journals at UNNES continue to be carried out by the Center for Journal and Publication Development. Some of the strategies that have been declared can be seen in the following table:



Fig. 1. Number of indexed UNNES Journals in Sinta

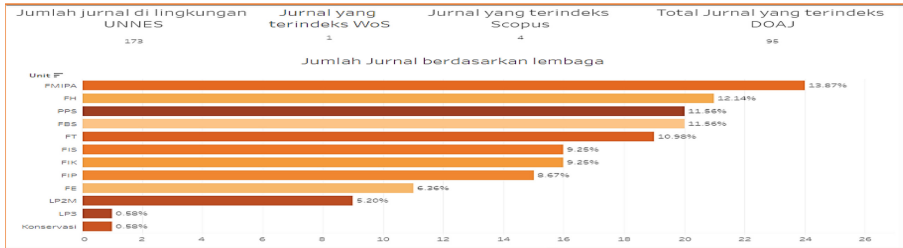


Fig. 2. The Details of UNNES Journal Based on Faculties and Institutions

A. Innovation in 2022

1. Developing new policies related to the management of a centralized/integrated, democratic journal, and applying the principles of togetherness and mutual cooperation. With the details:
2. Developing an Integrated Journal Performance Information System (Sikenal) at the Journal Center which includes 9 journal services, forensic audits (33 indicators), periodic checks (38 indicators), and statistical display of UNNES Journal performance results.
3. Having specific additional human resources to manage finance and IT journals that are independently financed from 66 paid journals (40%) from existing journals at UNNES to support the services.

B. Innovation in 2023

1. Integration and strengthening of Sikenal with other systems (eg: Sikeu, SIPP, and Sister) to support Unqualified Opinion (WTP) UNNES.
2. UNNES Manuscript Clinic Services for the improvement of IG UNNES

C. Innovation in 2024

1. UNNES Ethics Commission Service for the improvement of IG UNNES

The Innovation of the Center for Community Service Development

The Center for Community Service Development at LPPM UNNES has the main task and function to manage programs and activities of Community Service Programs (KKN).

The Innovation of the Center for Dissemination of Technology and Intellectual Property

At LPPM UNNES, there is a Center for Dissemination of Technology and Intellectual Property (IP). The task of the center is to manage, assist, and coordinate the dissemination of technology and IP. The Center for Technology and IP Dissemination has several strategic innovations in improving its performance.

The Innovation of the Center for Innovation and Commercialization

LPPM UNNES has an Innovation and Commercialization Center that is in charge of encouraging and managing innovations produced by the academic community at UNNES. In addition, the innovation center is also tasked with bridging the commercialization of innovations that will be commercialized. The innovation activities that will be carried out by the Innovation and Commercialization Center are as follows:

A. Innovation in 2022

- a) Innovation Award
- b) Developing a Technology Readiness Level (TKT) application.
- c) Re-arrangement of regulations related to the policy of profit sharing of innovation commercialization.
- d) Launching the innovation house
- e) Assistance and implementation of the KEDAIREKA program
- f) Development of digital application publication center
- g) Innovation Award

B. Innovation in 2023

- a) Optimizing the commercialization of UNNES innovations
- b) Direct offer of UNNES innovation (direct selling) to stakeholders
- c) Industrial development planning (PT/CV) to facilitate the production of innovative works that can be mass-produced

The Innovation of Village Community Empowerment Center

The Village Community Empowerment Center has the task of implementing village community empowerment programs, either from research funds, community service, or Corporate Social Responsibility (CSR) funds. There are three main program innovations of the Village.

Collaboration Cluster Innovation

The UNNES collaboration group has the main duties and functions in managing collaborative activities at LPPM.

The Innovation of Quality Assurance Group

The main task and function of the LPPM UNNES quality assurance group is to design quality standards and procedures and oversee all activities to produce good quality. The innovations that will be implemented by the LPPM UNNES quality assurance group are as follows:

A. Innovation in 2022

- a) Preparing the completeness of Quality Management according to the SOP format (procedures, forms, and instructions or in LPPM in LPPM units that have been implemented)
- b) Monitoring of Research and Service Outcomes at LPPM three times.
- c) LPPM submits to the Quality Assurance Agency (BPM) Unnes to oversee Research and Service Outcomes at the Faculty Level
- d) Suggesting LPPM to be more selective in Research and Community Service funding that contains nuances of innovation and commercialization, or has entrepreneurial content. Suggesting that every center has started to take action to get Income in research and service areas from both lecturers and staff.
- e) Improved research and service performance achievement with the integration of SIPP and Sister, especially in IKU 5.

B. Innovation in 2023

- a) Reviewing SOPs that are implemented are still in accordance with last year or need to be revised.
- b) Reviewing the outputs of IKU 5 related to the outputs of research and service applied to the community where the utilization has been carried out in the current and previous years

The Innovation of Business Incubator Cluster

LPPM UNNES has a business incubator group in charge of assisting and incubating prospective entrepreneurs so that the business they run can develop. The business units/tenants who are assisted and incubated not only come from internal UNNES but also external UNNES.

6 Conclusions

Based on the results and discussions that have been described previously, it can be concluded that LPPM UNNES as one of the implementing institutions of the tri dharma of higher education has the task of preparing materials for policy formulation and implementation of activity programs in the field of research and community service. In carrying out its duties, LPPM UNNES carries out functions that can be accounted for rationally, proportionally, and objectively. LPPM UNNES is also one of the institutions that has a strategic role in supporting the acceleration of UNNES towards PTNBH.

In LPPM UNNES, there are five centers and three groups that have their respective main tasks and functions. Each center and group is obliged to have innovative programs every year. The Center for Journal and publication Development has several innovations such as the Journal Performance Information System (Sikenal), UNNES Manuscript Clinic Services, UNNES Ethics Commission Services to increase UNNES income generating, and others. The Journal Development Center has several innovations, namely

Unnes GIAT, Initiation of BAZANAS Collaboration, Preparation of CSR Collaboration, Integration of Kedaireka in UNNES GIAT, and others.

The Center for Technology and IP Dissemination has several innovations, namely the drafting patent camp for commercially valuable inventions to increase UNNES income, and the IP LPPM center website/portal. The Innovation and Commercialization Center has several innovations, namely Developing Technology Readiness Level (TKT) applications, Resetting regulations related to profit-sharing policies for commercialization of innovations, Launching innovation houses, Innovation awards, and others. The Village Community Empowerment Center has several innovations, namely the Development of Ecotourism Areas in the conservation buffer village areas, Cooperation with DUDI stakeholders, and Improving the local economy of innovation-based fostered villages.

The collaboration group has several innovations, namely Collaboration with BAPPEDA of City/Regency in Central Java Province, and Collaboration with Corporate CSR in Central Java Province. The quality assurance group has several innovations, namely Compiling Quality Management completeness according to the SOP format, Monitoring Research Outputs and service at LPPM three times, Improved research and service performance with the integration of SIPP and Sister, especially in IKU 5, and others. The business incubator cluster has innovations, namely continuing the Incubation business model with the Pre-incubation, Incubation, and Post-incubation stages, replicating cooperative incubation, mapping the potential for income generating, and others.

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