MBKM-Student Community: Benefits of Students Joining the Community Service Program on Applying Solar Energy in the Development of Agricultural Tourism in Jombang

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Abstract

This study aims to examine the benefits of students joining the community service program on applying solar energy in the development of agricultural tourism in Jombang. The research was conducted using a mixed-method, which is a mixture of qualitative and quantitative methods. Respondents in the research are students from Narotama University Surabaya, Indonesia. The results showed: In 2021, Narotama University Surabaya has implemented MBKM, a program initiated by the government starting in 2020; Research that studies the development of agricultural tourism continues to increase from year to year. In 1978 there were only two studies discussing this topic, while in 2021 the number had reached 183. An increase of 91.5 times when viewed from the number of publications on this topic. This increase is equivalent to a value of 212.8% annually; The sequence of MBKM programs chosen by Narotama University students is: Student exchange, Internship, Research, Building a Village or Thematic Community Service Program (KKNT), Entrepreneurial Activities, Humanitarian Project, Independent Study and Teaching Assistant in Education Unit; and The involvement of students in the MBKM program has been able to provide various benefits for students. in the form of competence development, skill improvement, meet the needs of future graduates.

Keywords:

MBKM-Student Community, Benefit, Solar Energy, Improvement, Agricultural Tourism

1. Introduction

Education in Indonesia still leaves several problems that must be resolved immediately. These problems include: The low percentage of the Gross Enrollment Rate (GER) of Indonesian higher education, which relatively shows that the percentage of GER for higher education in Indonesia is still lagging behind that of neighboring countries; The majority of students are still oriented to being job seekers (job seekers), not job creators (job openings/entrepreneurs) as the main profession; The competence of graduates is not yet optimal by their field of expertise and the needs of the work industry, which is recognized through the certification of related professional institutions; The quality of higher education is still inadequate, seen in the context of the study program which shows that there are still many study programs accredited C and not even accredited; The percentage of graduates who go straight to work is relatively low, considering that the educated unemployment rate is still quite high. This indicates that the relevance and competitiveness of higher education are still low and there is still misalignment between higher education and the world of work (Direktorat Belmawa, 2021).

The Director-General of Higher Education has designed various programs so that problems that exist in the world of education in Indonesia can be overcome. The Director-General of Higher Education has formulated several targets, one of which is "Improving the quality of learning and the relevance of higher education". The performance indicators for this goal are: Three universities that are included in the Top 500 World Class Universities; Four universities that are included in the Top 500 World Class Universities became PTN-BH; Ten percent of internationally accredited/certified study programs (PTN); Sixty-four point seventy-seven percent of university graduates who work within 1 year after graduation; Thirty percent of university graduates with a minimum salary of 1.5x UMR; Thirty percent of college graduates (D4 and S1) with at least 1 (one) semester off-campus experience; Five percent of funding and development of higher education research facilities funded by partners (PTN) (Dirjen Dikti, 2021).

The achievements that have been achieved can be seen in Table 1.

Table 1 Key Performance Indicators (KPI) Achievements in 2020

| Indicator | Target | Realization | % Achievements |
|---|--------|-------------|----------------|
| Number of universities included in the Top 500 World Class University | 3 | 3 | 100 |
| Number of universities included in the Top 500 World Class University by Subject | | 8 | 200 |
| Number of universities to become PTN-BH | 14 | 13 | 92,8 |
| Percentage of internationally accredited/certified study programs (PTN) | 10 | 9,27 | 92,7 |
| Percentage of college graduates who work within 1 year of graduation | 64,77 | 75,4 | 116,4 |
| Percentage of college graduates with a minimum salary of 1.5x UMR | 30 | 28,1 | 93,66 |
| Percentage of college graduates (D4 and S1) with at least 1 (one) semester of off-campus experience | 30 | 26,22 | 87,3 |
| Percentage of funding and development of higher education research facilities funded by partners (PTN | | 0 | 0 |
| Average | | | 97,86 |

Source: (Dirjen Dikti, 2021)

Table 1 above shows that three indicators have been able to achieve the set targets, meanwhile five indicators have not been able to achieve the set targets.

Narotama University Surabaya is one of the universities in Indonesia that has the responsibility to improve the performance of higher education. In 2021, Narotama University Surabaya has implemented MBKM, a program initiated by the government starting in 2020. Universities are obliged to contribute to development in Indonesia, one of which is the development of agricultural tourism. Narotama University, especially the Department of Management, has conducted several research and community services in the tourism sector so it has a good track record. The research - the service carried out can be seen in Table 2.

Table 2 Research - Community Service in the field of Tourism conducted by the Department of Management

| Title | Author | Year |
|--|-------------------------------|-----------|
| Tourism 4.0, digital-based tourism to improve people's welfare in East | I Nyoman Sudapet, Agus Sukoco | 2019-2020 |
| Java | | |
| Maritime Economic Integration Model and Tourism in the Regions to | I Nyoman Sudapet, Agus Sukoco | 2017-2018 |
| Improve the Economy of Eastern Indonesia | | |

Several studies have discussed the development of agricultural tourism. The data can be seen in Figure 1. Research that studies the development of agricultural tourism continues to increase from year to year (Burke, 2021; Garavito et al., 2021; He et al., 2021; Hojo et al., 2021; Hollas et al., 2021; Mizanur Rahman, 2021; Zakharin et al., 2021). In 1978 there were only two studies discussing this topic, while in 2021 the number had reached 183. An increase of 91.5 times when viewed from the number of publications on this topic. This increase is equivalent to a value of 212.8% annually.

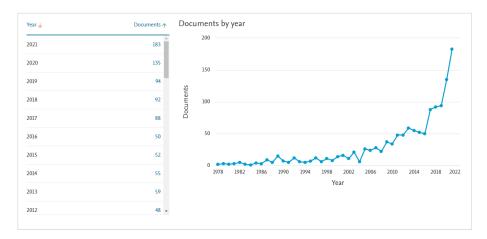


Figure 1 Research that examines the development of agricultural tourism (Scopus.com, 2021)

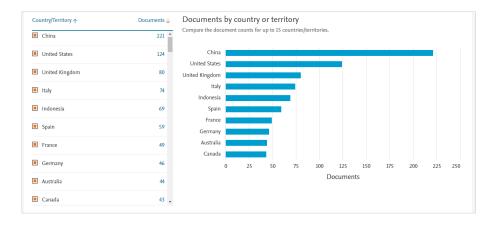


Figure 2 Country Origin of research that examines the development of Agricultural Tourism (Scopus.com, 2021)

China became the country with the first rank in research related to the development of Agricultural Tourism. The research that has been carried out has reached 221 pieces. The United States is in second place with 124 types of research, the United Kingdom is third with 80 research, and Italy is fourth with 74 research. Meanwhile, Indonesia is ranked fifth with a total of 69 studies.

Jombang is one place in Indonesia that has a lot of potential in the agricultural tourism sector (BPS Jombang, 2021). Ngampungan Pandansili Bareng Village, Jambu Gondangmanis Bandarkedungmulyo, Argo Wayang Galengdowo, Wonosalam Village, Pangeran Benowo Wonomerto Wonosalam Village, and Cadang Wulung Village, Wonosalam District, are among the agricultural - village tourism spots in Jombang. It is necessary to evaluate the organization of tourist locations as a source of added value (Hakim, 2020). This study aims to examine the benefits of students joining the community service program on applying solar energy in the development of agricultural tourism in Jombang.

2. Methods

The research was conducted using a mixed-method, which is a mixture of qualitative and quantitative methods. The data used include primary and secondary data. Respondents in the research are students from Narotama University

Surabaya, Indonesia. Data was collected through literature review, interviews, focus group discussions, and questionnaires. The distribution of questionnaires is carried out in a period of 12 - 20 December 2021. The data that had been collected were analyzed using qualitative data analysis techniques and descriptive analysis.

3. Result and Discussion

3.1 Result

This study discusses the benefits of students joining the community service program on applying solar energy in the development of agricultural tourism in Jombang. The research results presented are related to students' perceptions of the benefits that can be obtained from participating in MBKM activities at Narotama University which was initiated by the Directorate General of Higher Education, Research and Technology.

Table 3 The Interest of Narotama University Students in the MBKM Program of the Directorate General of Higher Education, Research and Technology

| Item | Frequency | Percent |
|-----------------|-----------|---------|
| Very interested | 1.572 | 96,3 |
| Ordinary | 61 | 3,7 |
| Total | 1.633 | 100,0 |

Table 3 shows the level of interest of Narotama University Students in the MBKM Program of the Directorate General of Higher Education. The available data shows that the majority of students, as many as 1,572 are interested in the MBKM program implemented by the Directorate General of Higher Education, Research and Technology. This amount is equivalent to 96.3% of all respondents. The rest, namely 61 people or equal to 3.7% stated that they were normal, and not interested but also did not reject the MBKM program being implemented.

Table 4 Recommend MBKM program to colleagues

| Item | Frequency | Percent |
|----------|-----------|---------|
| Yes | 1.560 | 95,5 |
| Not sure | 73 | 4,5 |
| Total | 1.633 | 100,0 |

Table 4 shows the intention of Narotama University Students to recommend the MBKM program implemented by the Directorate General of Higher Education. The available data shows that 1,560 research respondents will recommend the MBKM Directorate General of Higher Education program. The rest, as many as 73 research respondents are not sure whether to recommend the MBKM program to their colleagues or not.

Table 5 The type of MBKM chosen by Narotama University students

| MBKM type | Frequency | Percent (%) |
|--|-----------|-------------|
| Student exchange | 457 | 28,0 |
| Internship | 335 | 20,5 |
| Teaching Assistant in Education Unit | 31 | 1,9 |
| Research | 335 | 20,5 |
| Humanitarian Project | 51 | 3,1 |
| Entrepreneurial Activities | 113 | 6,9 |
| Independent Study | 45 | 2,8 |
| Building a Village, or Thematic Community Service Program (KKNT) | 266 | 16,3 |
| Total | 1.633 | 100,0 |

Table 5 shows the type of MBKM chosen by Narotama University students. The MBKM program that was most chosen by Narotama University Surabaya students was Student exchange with the number students choosing as many as 457 students. This amount is equivalent to 28.0 of all research respondents. The number of students who choose internship and research is the same, namely 335, equivalent to 20.5 of the total research respondents. In third place, namely "Building a Village, or Thematic Community Service Program (KKNT)". This program was chosen

by 266 students. This research is focused on students who take the MBKM program "Building a Village, or Thematic Community Service Program (KKNT)". This focus was taken because the program was related to applying solar energy in the development of agricultural tourism in Jombang which was attended by students taking the "Building a Village, or Thematic Community Service Program (KKNT)" program.

Table 6 Benefits if you participate in MBKM activities in developing competencies/skills as a provision to work after graduation

| MBKM type | Benefits of student participation in MBKM activities in developing competencies/skills as a provision to work after graduation | | |
|---|--|--------------|-------|
| | Very helpful | Quite useful | |
| Student exchange | 448 | 9 | 457 |
| Internship | 285 | 50 | 335 |
| Teaching Assistant in Education Unit | 23 | 8 | 31 |
| Research | 288 | 47 | 335 |
| Humanitarian Project | 33 | 18 | 51 |
| Entrepreneurial Activities | 82 | 31 | 113 |
| Independent Study | 44 | 1 | 45 |
| Building a Village, or Thematic Community Service Program (KKNT) | 236 | 30 | 266 |
| Total | 1.439 | 194 | 1.633 |

Table 6 shows the Benefits if you participate in MBKM activities in developing competencies/skills as a provision to work after graduation. Students who took the "Building a Village, or Thematic Community Service Program (KKNT)" program A total of 236 students explained that the MBKM program helped them to improve the competencies and skills needed after they graduated. As many as 30 students stated that MBKM activities were quite useful to improve their competence and skills.

Table 7 Level of Skill Improvement After Participating in MBKM Activities

| | Lev | Level of Skill Improvement After Participating in MBKM Activities | | | | |
|---|-------------|---|-------------------|-------------|-------------|-------|
| MBKM type | No | There is an | There is a pretty | There is | There is an | Total |
| WIBKWI type | improvement | improvement but | good | improvement | improvement | Total |
| | at all | not good | improvement | well | very well | |
| Student exchange | 3 | 2 | 11 | 255 | 186 | 457 |
| Internship | 1 | 1 | 12 | 152 | 169 | 335 |
| Teaching Assistant in Education Unit | 0 | 1 | 2 | 8 | 20 | 31 |
| Research | 0 | 0 | 4 | 131 | 200 | 335 |
| Humanitarian Project | 0 | 1 | 3 | 34 | 13 | 51 |
| Entrepreneurial Activities | 0 | 1 | 16 | 63 | 33 | 113 |
| Independent Study | 0 | 0 | 1 | 6 | 38 | 45 |
| Building a Village, or Thematic Community Service Program (KKNT) | 1 | 0 | 4 | 106 | 155 | 266 |
| Total | 5 | 6 | 53 | 755 | 814 | 1.633 |

Table 7 shows the respondent's perception of the level of skill improvement after participating in MBKM activities, especially those following. The available data shows that respondents who take part in the "Building a Village, or Thematic Community Service Program (KKNT)" activity, have a perception that MBKM activities provide benefits in the form of skill enhancement. One hundred and six respondents stated "there is an improvement well", while one hundred and fifty respondents stated, "There is an improvement very well".

Table 8 The importance of MBKM to prepare for the post-college period

| | The importance of MBKM to prepare for the post-college | | | | |
|---|--|-----------|-----------|-----------|-------|
| | period | | | | Total |
| | Very | Important | Quite | Not | Total |
| | important | Important | important | important | |
| Student exchange | 425 | 31 | 1 | 0 | 457 |
| Internship | 209 | 114 | 11 | 1 | 335 |
| Teaching Assistant in Education Unit | 25 | 6 | 0 | 0 | 31 |
| Research | 243 | 90 | 2 | 0 | 335 |
| Humanitarian Project | 22 | 24 | 5 | 0 | 51 |
| Entrepreneurial Activities | 56 | 45 | 12 | 0 | 113 |
| Independent Study | 42 | 2 | 1 | 0 | 45 |
| Building a Village, or Thematic Community Service Program (KKNT) | 189 | 72 | 5 | 0 | 266 |
| | 1211 | 384 | 37 | 1 | 1633 |

Table 8 shows the importance of MBKM to prepare for the post-college period. The results showed that for students who took the "Building a Village, or Thematic Community Service Program (KKNT)" program, 189 students considered MBKM very important to prepare for the post-college period. Meanwhile, as many as seventy-two people stated that MBKM activities were important to prepare for the post-college period.

Table 9 The ability of MBKM activities to meet the needs of future graduates

| | The ability of MBKM activities to meet the needs of future graduates | | Total |
|---|--|----------------|-------|
| | Very suitable | Quite suitable | |
| Student exchange | 417 | 40 | 457 |
| Internship | 253 | 82 | 335 |
| Teaching Assistant in Education Unit | 23 | 8 | 31 |
| Research | 280 | 55 | 335 |
| Humanitarian Project | 38 | 13 | 51 |
| Entrepreneurial Activities | 68 | 45 | 113 |
| Independent Study | 44 | 1 | 45 |
| Building a Village, or Thematic Community Service Program (KKNT) | 203 | 63 | 266 |
| Total | 1326 | 307 | 1633 |

Table 9 shows the ability of MBKM activities to meet the needs of future graduates. Of the students who took the MBKM Program "Building a Village, or Thematic Community Service Program (KKNT)", as many as 203 people stated that MBKM activities are very suitable for tertiary institutions to meet the needs of future graduates. Meanwhile, the rest, as many as 63 people said that the MBKM activity was quite suitable for tertiary institutions to meet the needs of future graduates.

3.2 Discussion

This study aims to analyze the benefits of students joining the community service program on applying solar energy in the development of agricultural tourism in Jombang. The objective of the MBKM program "right to study three semesters outside the study program" aims to develop graduates' competency, both soft and hard skills, for them to be better prepared and relevant to the needs of the times, and to prepare graduates as future leaders of the nation with exceptional personalities. Students should be able to develop their potential according to their passions and talents through experiential learning programs with flexible pathways (Narotama University, 2021b).

The evolution of agricultural tourism can be understood by looking at how people use their agricultural resources, culture, and location to keep agriculture going. Hosts who provide local food, tales, and activities help to maintain a strong sense of rural identity. It changes as a result of three processes, one of which is a transformation in the meaning of farmer identity. The third is a shift in identity diversity due to varied memberships and social arrangements (Brandth and Haugen, 2011).

Agricultural tourism necessitates the control of several difficulties both on and off the farm. Each factor, as well as combinations of factors, must be taken into account. It benefits businesses and the agricultural tourism industry if

done correctly. Having something to give is critical in any company activity, and the composition and quality of the product are always a concern. Organizing agricultural activities is critical for rural tourism, which has less visible and examined communal institutions. Quality assurance procedures, for example, have arisen as a means of institutionalizing and stabilizing the sector over time. These and other institutions are frequently founded and administered by collective organizations (Forbord, Schermer, and Grießmair, 2012).

Universities, with their Three Obligations, are critical to the community's economic development, particularly in the promotion of agricultural tourism. One of them is Narotama University. MBKM-Student Community Program partners with the community through the MBKM program to enhance agricultural tourism through diverse activities, including solar power applications. Narotama University's MBKM-Student Community Program provides education through learning experiences in a community outside the school. Students recognize potential and overcome difficulties directly with the community to create potential and collect solutions to village concerns. In managing development initiatives in rural areas, this activity is supposed to strengthen soft partnership skills, cross-disciplinary teamwork, and student leadership. Several students from Narotama University Surabaya have been deployed to Jombang to engage in a solar energy implementation program aimed at sustainably developing agricultural tourism.

An important part of this program is "Building a Village, or Thematic Community Service Program (KKNT)". MBKM-Student Community Program is a type of education that involves students living in the community outside of the campus and working directly with the community to uncover potentials and solve problems, with the expectation that they will be able to create village/regional potential and design answers. In managing development initiatives in rural regions, KKNT activities are supposed to polish partnership soft skills, crossdisciplinary/scientific team collaboration (cross-competence), and student leadership. Universities have already implemented the KKNT program; the only difference is that Semester Credit Units (SKS) cannot or cannot be recognized by an independent campus program whose credit recognition is equivalent to 6 - 12 months or 20 - 40 credits, with an implementation based on several models. It is also envisaged that after implementing the MBKM-Student Community Program, students will be able to write out what they have done and the outcomes in the form of a final project. The MBKM-Student Community Program is being implemented to support collaboration with the Ministry of Villages, the PDTT, and other Ministries and stakeholders. According to data from the Developing Village Index (IDM) in 2019, the government channeled village funds of 1 billion per village to a total of 74,957 villages in Indonesia, with 6,549 severely poor villages and 20,128 underdeveloped villages. MBKM-Student Community Program can be implemented in communities that are highly poor, underdeveloped, or developing, and whose human resources lack development planning competencies and big finance facilities. As a result, the efficiency with which village funds are used to fuel economic growth needs to be increased, one of which is through students who can become human resources who can better empower village funds (Narotama University, 2021a). The results of the research above can show several benefits obtained by students by participating in the activities of applying solar energy in the development of agricultural tourism in Jombang, namely:

Table 10 A recap of the benefits that students can get by participating in applying solar energy in the development of agricultural tourism in Jombang

| No | Indicator | Description |
|----|-------------------------------------|---|
| 1 | Developing competencies/skills as a | MBKM program helped the student to improve the competencies and skills needed |
| | provision to work after graduation | after they graduated |
| 2 | Skill Improvement After | Respondents who take part in the "Building a Village, or Thematic Community |
| | Participating in MBKM Activities | Service Program (KKNT)" activity, have a perception that MBKM activities |
| | - | provide benefits in the form of skill enhancement |
| 3 | importance of MBKM to prepare for | Students who took the "Building a Village, or Thematic Community Service |
| | the post-college period | Program (KKNT)" program considered MBKM very important to prepare for the |
| | | post-college period |
| 4 | The ability of MBKM activities to | Students who took the MBKM Program "Building a Village, or Thematic |
| | meet the needs of future graduates | Community Service Program (KKNT)" stated that MBKM activities are very |
| | | suitable for tertiary institutions to meet the needs of future graduates |

The results of the summary above show that the involvement of students in the MBKM program "Building a Village or Thematic Community Service Program (KKNT)", especially in the "Applying Solar Energy in the Development of Agricultural Tourism in Jombang" project has been able to provide various benefits for students. in the form of competence development, skill improvement, meet the needs of future graduates.

4. Conclusion

Conclusions that can be drawn from the "KKN-Desa: Benefits of Students Joining the Community Service Program on Applying Solar Energy in the Development of Agricultural Tourism in Jombang":

- 1) In 2021, Narotama University Surabaya has implemented MBKM, a program initiated by the government starting in 2020.
- 2) Research that studies the development of agricultural tourism continues to increase from year to year. In 1978 there were only two studies discussing this topic, while in 2021 the number had reached 183. An increase of 91.5 times when viewed from the number of publications on this topic. This increase is equivalent to a value of 212.8% annually.
- 3) The sequence of MBKM programs chosen by Narotama University students is Student exchange, Internship, Research, Building a Village or Thematic Community Service Program (KKNT), Entrepreneurial Activities, Humanitarian projects, Independent Study, and Teaching Assistant in Education Unit.
- 4) The involvement of students in the MBKM program has been able to provide various benefits for students. in the form of competence development, skill improvement, meet the needs of future graduates.

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