

Sustainable Budget Planning in Green Campus Implementation at Universitas Muhammadiyah Riau

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ABSTRACT

The purpose of this study was to measure the sustainable budget planning in green campus implementation at Universitas Muhammadiyah Riau. The method used is sequential mixed method. Data were collected by distributing questionnaires to 100 respondents consisting of students, lecturers, and employees. Interview with structural officials was also carried out. In the suitability measurement of sustainable budget planning in green campus implementation, Universitas Muhammadiyah Riau has not accommodated 10 indicators of 13 indicators or 76.92% in strategic planning and annual cost budgeting. The ten indicators are related to watershed, seminar on global warming, renewable energy, the provision of waste infrastructures to make integrated waste disposal sites, water reservoir hole, artificial well, car free day programme, procurement of campus bus, and making green spot.

Keywords: Sustainable budget planning, green campus

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INTRODUCTION

Development with an environmental dimension has been agreed by environmental scientists in the world including Indonesia as a concept in sustainable development, and a model that is expected to be able to preserve environmental functions (Hadi, 2005). The campus as a gathering place for intellectuals and the place to produce young intellectuals for the next generation of the nation is expected to be a model or example for other institutions in good environmental management. As academics, the community is eagerly awaiting future thinking about environmental problems, because of course good environmental quality will support a good life. Sustainable development is one of the complex long-term development stages involving various scientific disciplines (Yang et al., 2016). In the long term, a balanced development strategy is needed between economic, social and environmental aspects, supported by good institutional aspects. According to Heal in Fauzi&Octavianus (2014) there are at least two dimensions in the concept of sustainable development, namely the time dimension which concerns with what is happening in the present and in the future, and the interaction dimension concerning with the economic system and the environmental system, because the fulfillment of human needs is basically always related to the availability and limitations of natural resources. Sustainable development is the juxtaposition of two important main elements, namely development which aims to always develop the potential towards a better and sustainable condition which represents the meaning of resilience and sustainability (Cristian, et.al, 2015).

The government has started to run environmental sustainable development programs on campus with a green campus program. The green campus concept in Indonesia refers to the "UI Green Metric World University Rankings" model. Measuring the success of implementing the green campus UI Green Metric World University Ranking is based on 6 (six) categories and 39 indicators, namely; (1) structuring and infrastructure, with 6 categories, (2) energy and climate change, with 8 indicators (3) waste, with 6 indicators (4) water, with 4

indicators (5) transportation, with 8 indicators, and (6) education and research, with 7 indicators.

In environmentally sustainable development on campus, funding is needed in the form of providing a budget to finance programs and activities related to the implementation of a green campus. According to Handoko (2011) planning is a basic process, where management decides on the goals and ways of achieving them. Planning is the selection of a set of activities and the subsequent decisions of what to do, when, how, and by whom. Good planning can be achieved by considering conditions in the future in which planning and activities that are decided will be carried out, as well as the current period when the plan is made, while the budget is a work plan that is expressed quantitatively measured in monetary units covering a period of one year (Mardiasmo, 2012). The budget has two main functions in an organization, namely as a planning tool and as a management control tool. In this sustainable campus planning and budgeting, there are still several problems faced by Universitas Muhammadiyah Riau, namely; (1) reforestation, in the form of making watershed, maintaining campus parks and campus forests, making green open spaces (2) waste, in the form of providing solid waste management facilities and infrastructure, making integrated waste disposal sites and integrated waste management, (3) reduction of motor vehicle emissions, in the form of vehicle free day program activities, routine/periodic maintenance of official vehicles, and campus bus procurement have not been fully implemented in fulfilling green campus indicators, and budget has not been specifically allocated in the annual Budget Plan (RAB) of Universitas Muhammadiyah Riau. The results of research by Hapsari et.al (2014) determine 13 indicators in measuring the success of sustainable budget planning in implementing green campuses, namely; (1) reforestation of watershed, (2) maintenance of campus parks and campus forests, (3) counseling / seminars on global warming, (4) applying the concept of green building, (5) applying renewable energy, (6) providing facilities and infrastructure for waste management, (7) making integrated waste disposal sites and integrated waste treatment, (8) making biopores, (9)) construction

of artificial wells, (10) car free day program, (11) routine /periodic maintenance of official vehicles, (12) procurement of campus buses, and (13) making of green spots, which refers to the UI green metric ranking.

METHODOLOGY

The research approach used is a mixed method, with a sequential explanatory strategy. Mixed research is a procedure for collecting, analyzing, and mixing quantitative and qualitative methods in a study or a series of studies to understand research problems (Creswell, 2013). This is in line with what Johnson & Christensen (2014) point out that mixed research is a class of research studies in which researchers mix or combine quantitative and qualitative approaches. Research data collection was carried out for the purposes of quantitative analysis and qualitative analysis. Quantitative analysis data collection was done through a questionnaire instrument. The questionnaire was given to 100 respondents from the academic community, consisting of lecturers, staff and students. Data collection for the purposes of qualitative

analysis was carried out by means of interviews, observation, and documentation. Quantitative data analysis was performed using descriptive statistical methods, while qualitative data was analyzed in three stages, namely; (1) data obtained through interviews in the form of structured and guided questions, analyzed using qualitative descriptive analysis, (2) after reducing the interview data, then testing the conformity with the results of descriptive statistics on respondents' perceptions of sustainable budget planning, (3) the researcher made observations on the physical evidence of the green campus, and tested the conformity with indicators of sustainable budget planning.

RESULTS AND DISCUSSION

Results

From the test of sustainable budget planning with descriptive statistics, the total mean score is 1.59 or in the category Inappropriate with the details as seen in table 1 below:

Table 1. The Suitability Level of Sustainable Budget Planning in Green Campus Implementation at Universitas Muhammadiyah Riau

No	Statements	Mean Score of Respondents' Perception	Interpretation of Respondents' Perception Score
1	Greening of watershed	1.53	Inappropriate
2	Maintenance of campus parks and forests	2.20	Quite Appropriate
3	Counseling/seminar on global warming	1.27	Inappropriate
4	Implementation of green building concept	1.90	Quite Appropriate
5	Implementation of renewable energy	1.50	Inappropriate
6	Provision of facilities and infrastructure for waste management	1.27	Inappropriate
7	Establishment of integrated waste disposal sites for garbage disposal and solid waste management	1.23	Inappropriate
8	Making water reservoir hole	1.50	Inappropriate
9	Making artificial wells	1.37	Inappropriate
10	Vehicle free day program	1.63	Inappropriate
11	Routine / periodic maintenance of official vehicles	2.60	Quite Appropriate
12	Procurement of campus buses	1.30	Inappropriate
13	Making green open space	1.43	Inappropriate
	Total	1.59	Inappropriate

Table 1 above describes the score achieved from the sustainable budget planning in the implementation of a green campus at Universitas Muhammadiyah Riau, which is 1.59 or in the category of inappropriate. The score of 1.59 is the average result of the perception of the academic community on 13 indicators of sustainable budget planning. The score indicates that Universitas Muhammadiyah Riau has not specifically allocated a sustainable budget for the implementation of a green campus. Achievement of inappropriate indicator scores include: (1) reforestation of watershed, (2) counseling / seminars on global warming, (3) application of renewable energy, (4) provision of facilities and infrastructure for waste management, (5) construction of integrated waste disposal and solid waste management, (6) making water infiltration holes, (7) making artificial wells, (8) vehicle-

free day program, (9) providing campus buses, and (10) making green open spaces.

In order to validate and confirm the results of the perceptions of the academic community on indicators of sustainable budget planning in the application of green campuses, a qualitative research approach was then carried out, by collecting data through interviews with structural officials at Universitas Muhammadiyah Riau, involving the Rector, Vice Rector 1 and 3, Head of the Institute for Research and Community Service, Head of Quality Assurance, Head of the Bureau of Student Academic Administration, Head of the Bureau of General Administration and Finance, Deans, and Head of the Study Programs. The interview results of the sustainable budget planning after data reduction and coding as well as triangulation testing can be seen in table 2 below:

Table 2. Interpretation of Budget Planning Interview Results in the Implementation of Green Campus towards Sustainable City Campus at Universitas Muhammadiyah Riau

No	Indicator	%	Interpretation
1	Greening of watershed	43	Inappropriate
2	Maintenance of campus parks and forests	52	Quite Appropriate
3	Counseling/seminar on global warming	23	Inappropriate
4	Implementation of green building concept	53	Quite Appropriate

5	Implementation of renewable energy	27	Inappropriate
6	Provision of facilities and infrastructure for waste management	34	Inappropriate
7	Establishment of integrated waste disposal sites for garbage disposal and solid waste management	31	Inappropriate
8	Making water reservoir hole	45	Inappropriate
9	Making artificial wells	38	Inappropriate
10	Vehicle free day program	21	Inappropriate
11	Routine / periodic maintenance of official vehicles	68	Quite Appropriate
12	Procurement of campus buses	21	Inappropriate
13	Making green open space	41	Inappropriate
	Total	38.23	Inappropriate

Based on table 2 above, it can be seen that the result of interpretation in relation to sustainable budget planning for the implementation of green campus at Universitas Muhammadiyah Riau is 38.23% or in the category of inappropriate. This is in line with the results of the respondents' perceptions of the academic community of sustainable budget planning in the application of a green campus, with a score of 1.59 or in the inappropriate category. The achievement of the value of sustainable budget planning in the inappropriate category indicates that Universitas Muhammadiyah Riau has not allocated

DISCUSSION

Planning is a basic process, where management decides the goals and how to achieve them. Planning is the selection of a set of activities and the subsequent decisions of what to do, when, how, and by whom (Handoko, 2011). A budget is a work plan expressed quantitatively as measured in monetary units covering a period of one year (Mardiasmo, 2012). The budget has two main functions in an organization, namely as a planning tool and as a management control tool. In measuring the success of implementing sustainable budget planning, UMRI has not been able to accommodate 10 indicators or 76.92% of 13 indicators. Indicators that have not been accommodated in the annual Strategic Plan (Renstra) and Budget Plan (RAB) include; (1) reforestation of watersheds, (2) counseling / seminars on global warming, (3) application of renewable energy, (4) providing facilities and infrastructure for waste management, (5) making integrated waste disposal sites and integrated waste treatment, (6) making infiltration holes, (7) making artificial wells, (8) vehicle-free day program, (9) providing campus buses, and (10) making green open spaces.

According to the University of Indonesia (2016) in green campus sustainable budgeting, the indicators to be used must be; (a) can link green policy, green planning, and budgeting policy, (b) in accordance with RAD-GRK programs and activities in each region, and (c) reflect the commitment of the Government and society to reduce carbon emissions. In order to implement green budgeting effectively, there are six aspects that must be understood by stakeholders, namely; (1) the relationship between national and regional planning with climate change, (2) the fact that green economy is a common problem, with strategies and targets set by the Central Government and implemented by the Regional Government. Thus, the implementation of the green economy must understand the relationships and ways of coordination between various levels of local government and across sectors, (2) indicators and measures of achievement in addressing climate change, indicators are needed to measure the achievement of green budgeting implementation, (3) planning and budgeting in Indonesia. , (3) Sources of financing for handling climate change, (4) cost benefit

funding in the sustainable budget for the implementation of green campus. However, UMRI has indirectly allocated a green campus budget in the component of the cost of maintaining facilities and infrastructure. According to the Rector, the condition of the mismatch of sustainable budget planning with indicators was caused by the fact that UMRI does not have human resources in technical fields related to the environment. In addition, there has not been special attention to the green campus, because UMRI has never participated in the UI green Metric ranking competency.

analysis and cost effectiveness, and (5) climate change programs at the national and regional levels.

In linking green policy, green planning, and budgeting policy, UMRI has not been able to implement sustainable green campus budget planning in the Strategic Plan and Annual Budget Plan documents. This is due to the unavailability of human resources who have knowledge in the environmental field. However, UMRI has indirectly allocated a budget for the maintenance of green plants and other green campus infrastructure. According to Hastuti (2017) in preparing private campus budgets, it is necessary to pay attention to the principles of good governance. One of the fundamental problems in budgeting is the failure to fulfill the principles of independence and participation, in the sense that there is a conflict of interest between the management of the foundation and the university, and the exclusion of all stakeholders of the academic community.

In order to implement the 13 indicators of sustainable budget planning, it is necessary to apply participatory principles, independence and accountability. Participation in budgeting is a process in an organization that involves managers in determining budget goals for which they are responsible (Brownell, 1982 in Supriyono, 2005). In other words, in budgeting, managers not only carry out budgets that have been determined by superiors, but also need to play an active role in its preparation (Supriyono, 2005). Furthermore, Becker and Green (1970) in Margareth and Halim (2005) define manager participation in budgeting as a process of making decisions jointly between two or more people, where these decisions will affect the future for the decision maker. Thus, budgeting participation is the process of making budgets jointly by lower-level managers, middle-level managers and top-level managers and has influence in the budget preparation process. The principle of independence in budgeting, especially private universities is important, because it is hoped that there will be no conflicts of interest between the foundation management and the university constituents in budget planning. Independence is a thing or situation that can stand alone without the help of others. Hans Wehr(1998) in Rahmat(2011) mentions independence as self-confidence, self-reliance. Furthermore, according to City

Bank, in general there are four levels of financial independence, namely; (1) free from self-financial temptation, (2) free financial dependence from others, (3) free dependency from creditors, and (4) free from financial problems.

Accountability in budgeting is a principle that will determine that every activity and the final result of managing the financial budget must be accounted for. Accountability in the concept of good governance is related to the responsibility for higher education management to the management, in accordance with applicable regulations (Harsono, et al, 2016). Accountability in financial management means that the use of college money can be accounted for in accordance with predetermined planning. Based on the predetermined planning and applicable regulations, universities spend money responsibly. Accountability can be made to parents, community and foundation management. There are three main pillars that become a prerequisite for building accountability, namely; (1) transparency, (2) participation, and (3) performance standards. Thus, accountability in budget planning is more of a preventive nature, meaning that budget preparation is based on transparent principles, involves participation of all stakeholders and is supported by relevant performance standards. In higher education budgeting, Santosa(2018) reveals; (1) the role of the faculty in the higher education budgeting process has a significant effect. Faculties are the main actors in obtaining public funds, and they have a bargaining position, but this position should not override the general interests of the university, (2) managing the budget is essentially the same as managing conflict, therefore the main key is leadership. Good budgeting leadership must be able to accommodate all interests without having to sacrifice budget management rules and university vision, and (3) as part of a university entity, each faculty needs to work together to support university policies, they have the authority to attract public funds but policy / usage policy remains with the university.

In research on sustainable budgeting, Hapsari, Sumarjiyanto, and Purwanti (2014) made conclusions; (a) based on the UI Greenmetric World University Ranking 2013, the measurement of the success of a green campus is layout and infrastructure, energy and climate change, waste, water, transportation, and education, (b) in realizing a sustainable campus, several policy alternatives were made: (1) implementing a sustainable budget for campus environmental management, (2) implementing the green building concept, (3) implementing a recycling program for university waste, (4) implementing a water conservation program, (5) providing campus bus facilities for staff and students, and (6) promote student organizations related to the environment and institutions at Diponegoro University which deal with campus environmental management issues. To realize the green campus policy in a program and activity, a green campus budget planning is required.

CONCLUSION

In measuring the suitability of the implementation of the green campus sustainable budget planning, Universitas Muhammadiyah Riau has not been able to accommodate 10 indicators or 76.92% of the 13 indicators. Indicators that have not been accommodated in the annual Strategic Plan (Renstra) and Budget Plan (RAB) are; (1) reforestation of watershed areas, (2) counseling / seminars on global warming, (3) application of renewable energy, (4) providing facilities and infrastructure for solid

waste management, (5) making integrated waste disposal sites for waste disposal and integrated waste treatment, (6) making biopores, (7) making artificial wells, (8) car free day programs, (9) procuring campus buses, and (10) making green spots. As a result, the achievement of sustainable budget planning in implementing green campuses only reaches the category of inappropriate. The condition of the mismatch of indicators for sustainable budget planning in implementing green campuses is due to the fact that Universitas Muhammadiyah Riau does not yet have human resources in the technical field related to the environment. In addition, there has been no special attention to the green campus, because UMRI has never participated in the UI green Metric ranking competency. To implement 13 indicators of sustainable budget planning at Universitas Muhammadiyah Riau, it is necessary to apply participatory principles, independence and accountability. Participation in budgeting is a process within a university that involves leaders of the rector's work unit, internal institutions, faculties, and study programs to determine budget objectives as their responsibility. Independence is a matter or condition that the university can stand alone in budgeting without assistance from the foundation, and Accountability in budgeting is a principle that will determine that every activity and the final result of managing the financial budget must be accounted for. Accountability in the concept of good governance is related to the responsibility for higher education management to the board, in accordance with applicable regulations.

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