Measuring of Sustainability Development Goals (SDGs) for Poverty Alleviation in Batu City, East Java Province - Indonesia

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Abstract. **This study examines poverty eradication in Batu City, East Java Province Indonesia. This study aims to analyze the application of the SDG concept for poverty alleviation in the Batu City. It is projected that these results can be recommendations for the application of the SDGs in other regions in Indonesia. The population and sample used in this study were local government officials and the community who are directly involved in poverty alleviation activities, in total of 179 respondents. The analysis was carried out with descriptive qualitative using frequency analysis to find out the responses of respondents to the questionnaire. Next confirmatory statistical analysis is applied to strengthen the analysis results. SEM analysis with confirmatory is used to find out the variable indicators that can be used. The results of this study indicate that some of the goals proclaimed and agreed in the SDGs have been implemented by local governments, but still need to optimize the sustainability of economic development programs. So that local governments must be more intensive in implementing programs for equitable economic development.**

Keywords: Community Empowerment, SDG's, poverty alleviation

INTRODUCTION

The Sustainability Development Goal is a continuation of efforts to accelerate the achievement of MDGs targets which are national development priorities. This requires good synergy between policies at the national and regional levels. The achievement target of SDGs must be aligned with the regional short and medium-term development plans in the implementation of the program that has been prepared, performance indicators, and financial support from the regional budget [1].

Implementation of target SDGs ignition must be formulated properly using a clear road map. Furthermore, the roadmap is elaborated in the form of SDGs action plans concerning on the conditions and problems of each region [2], [3]. In its implementation, it is expected that those interested in achieving the SDGs will commit the planning and budgeting of the programs outlined in the activities to achieve the targets that have been formulated.

To reduce poverty, in general, local governments take various creative steps, to reduce poverty and social inequality, including efforts to create jobs to reduce unemployment [4]. So that coordination is needed periodically and continuously in efforts to reduce poverty.

The priority of this research is to reconstruct the development of a community empowerment program model to identify the accelerated achievement of SDGs. This research was conducted to find a model of community empowerment that is appropriate to the characteristics of the community and local culture. This research was started by taking data at the level of the Regional Government, which is the regional government institution that implements poverty reduction programs and is synergized by the Regional Poverty Reduction Coordination Team (TKPKD). The involvement of elements of the village apparatus and the community implementing poverty alleviation program activities were also involved in this study to strengthen the research results.

Activities in the context of reducing poverty that has been carried out, still need to be evaluated starting from planning, implementation, supervision to reporting accountability. If it is observed in more detail in the implementation of poverty reduction programs, integrated management with other development programs is needed, but synergies or alliances with all parties relevant to the program to achieve SDGs must be carried out optimally.

Since 2016, SDGs have officially replaced the MDGs 2000-2015. SDGs are transformative goals that are agreed upon and apply in all countries of the world [2], [5]. The SDG's contain 17 Goals, the goals contained in the SDG's charter are scheduled to regulate a series of peaceful community procedures without violence, no racial

discrimination in the world, participation, open governmental arrangements and partnership of various community stakeholders [6]. Unlike the process of preparing MDGs, the preparation of SDGs is done through a participatory process, one of which is through the Myworld survey [6], [7]. The fundamental change to the SDGs is the principle of "no one is left" [8]. SDG's also contains principles that emphasize equality between nations and citizens. SDG's applies universally to UN member countries, both developed, poor, and developing countries [9], [10].

Adjustments to the implementation of SDGs in Indonesia prioritize development that is tailored to the programs and priorities in the 2015-2019 Mid-Term Development Plan (RPJMN). There are similarities and differences between SDGs and Nawacita. In this study, SDG's is adapted to the situation and conditions of Indonesia in the development action plan [3] which consists of:

1. Sustainable human development such as poverty eradication, hunger, gender justice, access to water, and sanitation which are important strategic issues.
2. Equitable distribution of welfare and education as a priority agenda in improving the quality of human life by providing social security, education, and health.
3. Sustainable economic development, this issue is focused on the inclusiveness of economic growth, sustainable industrialization, a sustainable housing development with a balance of production and consumption patterns.
4. Affordability of energy access is a new focus by taking into account the development of sustainable infrastructure, including electricity generation, the use of biofuels, dams, and transportation routes. The shift to renewable energy sources and transparency in the management of the energy sector is an important focus as a social responsibility of sustainable resource management.
5. Climate change, which is a commitment to reduce greenhouse gas emissions.

Community Empowerment in the Implementation of SDGs

Community empowerment is involvement in various planned community activities to arouse participation and increase contributions to the benefit of the community. The orientation is directed towards the individualist and not the collectivist [11], [12]. The empowerment of human resources in the implementation of SDGs is based on individual employees and community groups of development actors and other caring groups. This includes involvement in the practice of implementing equitable development. Financial participation and representative participation are not part of the agenda, by changing their different

forms into other forms related to human resource involvement, human resource participation, and democracy. Therefore, there must be a difference between empowerment initiatives as defined above and initiatives that lead to empowerment efforts [13], [14].

In essence, community empowerment is the same as empowering human resources to incorporate organizations that play a role in determining the performance of organizations and individuals [15], [16]. So, it takes efforts to increase the ability and skills to create a culture of empowerment. This can be done through training and human resource development activities. The creation of an empowerment culture can be done by creating a conducive environment for empowerment efforts [17], [18]. For organizations or groups of people who want to form a culture of empowerment, we must find ways to form systems and processes that can develop human resources. The creation of an empowering culture can also be done by developing behaviors that are considered important for human resources [15], [17], [19]. The empowerment of resources in the community will run well if the entire culture in the community is changed fundamentally. So community empowerment must be interpreted as a process to make individual communities more empowered and capable, as well as responsible for solving the community's problems. This is done by giving full trust and authority to foster a sense of responsibility in solving their problems [11], [20].

METHOD

This research is quantitative research with confirmatory exploratory analysis. The population in this study is local government officials who carry out poverty alleviation programs in aligning SDG's implementation. Besides, there are Community Self-Reliance Institutions found in 24 Villages and Sub-Districts which get poverty alleviation program interventions. The sampling technique uses proportional sampling and documentation techniques according to the needs of the analysis. The results of the distribution of questionnaires submitted to respondents that can be analyzed are 179 questionnaires. The method of analysis uses the Equation Model Structure (SEM) to test the strength of each indicator, to determine the dominant indicator in forming variables, by knowing the value of factor loading.

RESULTS & DISCUSSION

Description of Latent Variables / Constraints on SDG's Achievement

SDG's Achievement Variable has four indicators, namely human development, welfare and education, sustainable economy, and energy

access. Respondents from the results of data analysis can be seen in the following table.

Table 1. Indicators and Mean Indicators

Variable	Indicator	Number of Items	Mean Indicator
SDG's achievements	Human Development	5 items	3.88
	Welfare and education	6 items	3.91
	Sustainable economy	5 items	3.57
	Access to energy	5 items	3.92
	Mean Variable		3.82

The mean value of this variable is 3.82, this indicates that SDG's achievements in Batu City are already good. SDGs achievement variable in this discussion has four indicators, the indicator with the lowest mean is the sustainable economic indicator of 3.57. This means that economic development cannot be enjoyed evenly for the majority of the population, especially for the lower classes. So special attention is needed on this indicator. The second-lowest indicator is human development with a mean value of 3.88. This value means that human development has proceeded as expected, but needs to be improved so that it touches the entire community. Especially for the poor, there is still discrimination of equal rights in the field of opportunities to obtain education, health, and an increase in income. This indicates that it takes concrete steps for the local government to focus more on the program of equitable distribution of development outcomes, especially in the economic sector so that it can be enjoyed by the community equally. There needs to be a more appropriate formula so that increasing economic growth can increase the income of the lower class. Equal distribution of economic growth that can be enjoyed by the majority of the population, especially in accessing education for all, and health for people in need.

Confirmatory Analysis

Based on the evaluation of the data sample size, the research model can be continued to be analyzed using SEM. This analysis is used to determine the loading factor that shows the contribution of each indicator to the variable.

The results of the unidimensional analysis of SDGs performance variables have fulfilled the confirmatory factor analysis requirements. Substantially the SDGs achievement variable's dimensionality test can be formed by four indicators. The highest loading value is an indicator of welfare and education with a value of 0.90. This shows that according to respondents' perceptions that SDGs achievements are following the targets and targets of local governments in terms of welfare and education, this is made possible by improving health and education services and gender issues, to improve the welfare of the wider community. This is also shown by the easy access

to health for the poor to get treatment. On the other three dimensions with loading more than 0.30, it can also be explained that the achievement of SDGs can be measured through human development, sustainable economy, and energy access.
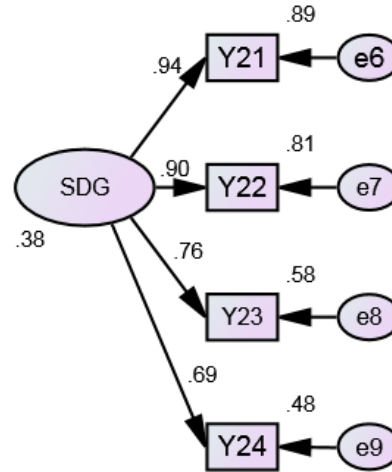

Figure 1. SEM Analysis

Table 2. Standardized Regression Weights Varibel SDGs

			Estimate
Y21 (Human Development)	<--	SDG's	0.94
Y22 (Welfare and education)	<--	SDG's	0.90
Y23 (Sustainable economy)	<--	SDG's	0.76
Y24 (Access to energy)	<--	SDG's	0.69

SDGs are goals that have been agreed upon by all countries in the World and contain goals for changes that are agreed upon and apply to all countries in the world. The purpose of the agreement contained in the SDGs document is to regulate the procedures for a peaceful community life without discrimination, without violence, to build joint participation, open governance, and partnership of various parties. In this study, SDGs are adapted to the situation and condition of Indonesia as stated in the development action plan [2], [3]. Variable indicators consist of Sustainability of the human development agenda. Improving welfare and education, Sustainable economic development is an issue that focuses on inclusive economic growth, access to energy can be reached.

The results of this study indicate that welfare and education, human development, sustainable economy, and energy access. proven to reflect SDG's achievements. This supports the results of previous studies that state the relevance of the goals set out in the SDGs, especially concerning poverty reduction [8], [10], [21]. Not all indicators consisting of 17 SDG achievement indicators are used in this study. This is adjusted to the condition

of Indonesia in general with the Nawa Cita launched by the current government. Also, each region has a different social culture, so it needs to be adjusted to the conditions of development of local governments that also have their respective problems so that a specific approach is needed to resolve the issue. However, activities in handling SDGs are adjusted to the policies and programs of the central government. This means that the activities and programs in the local government adjust and are derived from programs from the central government.

CONCLUSION

Local governments have an important role in the achievement of SDG's, so they must be encouraged to optimize policies in the interests of the community. This is done by increasing funding for the implementation of sustainable poverty alleviation programs. This alignment is expected to be able to accelerate the achievement of SDGs goals for the region. Activities in accelerating SDG achievements, especially in reducing poverty that has been carried out are still charity in nature and have not empowered the community purely. In this process, best practices are needed for community empowerment activities that are oriented towards achieving the SDG's goals.

Descriptive analysis results on SDG's achievement variables indicate the need to optimize their achievements, especially in the equitable distribution of results of sustainable economic development. These results illustrate that the variable achievement of SDG's with economic development indicators is perceived only enjoyed by certain circles. This is indicated by economic growth that has not been matched by the rate of poverty reduction.

Another important indicator that needs attention is human development. The human development index perceived by respondents in this study has not been able to increase overall community income. Besides, health and education service facilities need to be optimized so that they can be more evenly felt by the community.

Parties for the poor still need to be improved, by making a program of empowering human resources for development actors from local budget funding. The involvement of the private sector and other groups concerned with regional development aimed at accelerating the achievement of SDGs must be increased. This involvement is mainly in terms of increasing community participation in human development starting from program planning, implementation of activities, and supervision.

The involvement of the private sector in regional development must be done, through corporate social responsibility funds as the responsibility of the private sector's concern in social development in the region. This involvement was carried out as a form of community participation, to participate in accelerating the achievement of SDGs.

Updating the data must be done through independent verification and validation by local governments by adjusting the dynamics of the community, to obtain accurate poverty data. Data updating is done every fiscal year, to avoid conflicts in the community related to the demographics data update.

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