Community Motivation and Behavior on the Achievement of Rural Infrastructure Development Program in Gowa and North Toraja Regencies of South Sulawesi Province

Watono¹, Antariksa², Pitojo Tri Juwono³, Andi Tamsil⁴

¹(Doctoral Program of Environmental Sciences, Brawijaya University, Malang, Indonesia) ²(Faculty of Engineering, Brawijaya University, Malang, Indonesia) ³(Faculty of Engineering, Brawijaya University, Malang, Indonesia) ⁴(Faculty of Fisheries, Indonesia Moslem University, Makassar, Indonesia)

Abstract: - The Rural Infrastructure Development Program (RIDP) is a government program that was held from 1995 until present to balance the development gap between rural and urban areas. This program was held in all provinces in Indonesia, in villages in turns. The success of the program depends largely on the level of participation of the village community in the location of the program based on the aspects of community empowerment. The Rural Infrastructure Development Program is one of the programs initiated by the government in the context of alleviating poverty in rural communities through rural infrastructure development. This program is a community empowerment program in content that all activities are carried out by the community and accompanied by technical facilitators. The substance of the activity is in the community of villages thus, the community participation will determine the achievement of the program. The program's objectives include increasing the capacity of the program management apparatus, transparency of knowledge to the village community, opening up the isolation between the villages in the marketing area and improving the economic value of rural communities. Research location was in South Sulawesi Province. The consideration of choosing the two regencies from 23 regencies in South Sulawesi, namely Gowa Regency and North Toraja Regency, was because those two regencies have different ethnic and community characteristics. The population is a number of people in the village who received assistance in the two regencies. Samples were determined based on the provisions of the SEM Method for four variables as many as 250 samples / respondents. This study concluded that, motivation has a significant effect on behavior and technical support. But, it did not have significant effect on the achievements of the RIDP. Behavior has a significant effect on the achievements of the RIDP. While, community technical support has a significant effect on the achievements of the RIDP.

Keywords: - Motivation, Behavior, Technical, Achievement

Date of Submission: 03-07-2019

Date of acceptance: 18-07-2019

Background

I. INTRODUCTION

Infrastructure affects rural development through several ways, such as improved agricultural productivity, increased rural employment, and migration into urban sectors [1]. In Indonesia context, the Rural Infrastructure Development Program (RIDP) was launched from 2007 to 2015. It was a government program to develop infrastructure throughout the poor, isolated and disadvantaged villages in Indonesia. This program was an assistance program based on community empowerment, meaning overall program handling was carried out by the village communities who get the program.

The achievement of the RIDP program is a program implemented to support Government policies in alleviating poverty, especially in rural areas. The program was carried out with a focus on: (i) increasing community access to basic infrastructure services in rural settlements, (ii) improving community planning and development capacity and (iii) enhancing stakeholder capacity in implementing development with the implementation of good governance [2].

The Community Direct Assistance Fund (CDAF), which is channeled through RIDP, is a stimulant fund provided for the target village communities to finance efforts to improve the quality and access of basic housing infrastructure services and community economic development. RIDP provides opportunities and encourages the emergence of the active role of the community, especially the poor and women to plan, implement, control, utilize and manage the stages of implementation of the activities.

It was expected that the support of the Regional Government as the development adviser in the region could create a conducive and positive energy of working atmosphere for all actors in organizing the program and realizing harmonization for any programs of rural infrastructure development.

The community in the target villages is the direct beneficiary of the rural infrastructure development program, thus their support and active role is built upon the implementation of the program. Communities are the main actors at each stage starting from the process of preparing, disseminating, planning, implementing and maintaining infrastructure buildings. The responsibility for managing the Rural Infrastructure Development Program (RIDP) in villages is carried out by Local Community Organizations (LCO), Chairmen of Utilizers and Executors (CUE) and Village Cadres (VC) that were selected and determined by the community in village meetings. The community organization carried out RIDP activities by referring to the established guidelines accompanied and guided by technical facilitators as well as empowerment facilitators.

Stages of the Implementation of Rural Infrastructure Development Program (RIDP) are as follows:

- 1. Program Socialization Stage;
- 2. Infrastructure Type Determination Stage;
- 3. Infrastructure Planning Stage;
- 4. Physical Infrastructure Implementation Stage;
- 5. Post-Implementation / Operational and maintenance Stage;

Based on the above stages, it can be explained how the community empowerment model must be implemented by the community through technical assistance and empowerment by the facilitator, as follows:

- 1. Program Socialization, is the initial stage of RIDP implementation process, that provide and introduce Rural Infrastructure Development programs for the village communities who get the assistance, and it focuses on the empowerment model that is implemented in its implementation. Thus, the community is expected to be able to prepare themselves as the main actors who receive assistance from facilitators and other parties.
- 2. The RIDP training for the community aims to make the community understand the program that focus on administrative aspects and technical aspects which should be able to be followed and understood by the community, thus the community is able to understand and implement empowerment activity which is accompanied by technical and empowerment facilitators.
- 3. The determination of Infrastructure Type is as a community empowerment program. Thus, the main task of the activity is to determine the type of infrastructure as a priority scale that must be built to support program achievements. The community and village officials that are accompanied by technical and empowerment facilitators formulate and determine the type of infrastructure. In general, although there are five basic infrastructures offered by the program, yet over 70% of the villagers determine the type of road infrastructure as a link between village isolation and the isolation between the potential of natural resources for the marketing area
- 4. Infrastructure Planning is the stage of maximum community involvement which is in accordance with the empowerment model. The determination of the infrastructure type is followed by data surveys and planning, then carried out by the community and accompanied by technical facilitators. The consideration of technical planning is to adjust the amount of aid funds for the benefits of road construction, it means that if the funds are ready to be able to achieve the benefit only by procuring land for roads, thus it is decided to use the land road which is important to open the access and reach the potential of natural resources in the village to be developed.
- 5. Physical Infrastructure Implementation is the implementation of physical infrastructure in the empowerment model, namely the community as the planner and at the same time becoming the physical implementer, so that they are able to know the technicalities of doing physical infrastructure work. Besides, the local material is expected to be taken or bought by the community from the owner of the material in the location or village. The entire of the labors should be the local people who are accompanied by technical facilitators. Therefore, the village community not only receive physical infrastructure, yet they also can involve themselves to work and earn wages including local materials purchased at the local community.
- 6. Physical maintenance of infrastructure is done after the capitulation of the operational of this program, the utilization and maintenance community organizations will handle infrastructure operations including carrying out maintenance for long-term sustainable use.

Referring to the explanation of the stages of the program activities done by the community, the program achievements focused on how the character of the community in terms of motivation and behavior supported by technical facilitators and empowerment was able to realize the program achievements, including transforming knowledge to the community in managing infrastructure; being able to increase institutional capacity in the villages, sub-districts and regencies in managing the program; increasing the economic value of the community by opening the isolation between the potential of the village to access marketing access and other more comprehensive funds.

The Concept of Rural Infrastructure Development

In order to support poverty reduction efforts in rural areas, the Ministry of Public Works through the Directorate General of Human Settlements has carried out various programs, including: Compensation Reduction Program for Oil-Fuel in the field of Rural Infrastructure (PKPS-BBM) in 2005, Rural Infrastructure Support (RIS) in 2006 and the Rural Infrastructure Development Program (RIDP) which began in 2007 until today.

The Rural Infrastructure Development Program, better known as PPIP in Indonesian context, aims to create and improve the quality of life of the community, both individually and in groups so as to be able to solve various problems related to underdevelopment and poverty in several villages. RIDP is a community empowerment-based program under the umbrella of independent development, whose component activities include facilitation and community mobilization so as to be able to identify problems of availability and access to basic infrastructure, develop plans and implement basic infrastructure development. The implementation of RIDP continuously improve the capacity and role of the community and stakeholders in the implementation of the program. These things are done through:

- a) Increased awareness of the importance of availability and access to basic infrastructure to all levels of actors;
- b) Increased active community participation in the implementation of the program, especially the participation of women and the poor, in the decision-making process;
- c) Capacity building for organizers through training that is integrated in the system of program implementation;
- d) Improving the quality of work, through monitoring performance to be carried out in stages from the central, provincial, regencial, to the village level;
- e) Performance appraisal associated with the system, awards, and sanctions for program organizers, from the provincial, district, and village levels; and;
- f) Strengthening the mechanism and implementation of handling public complaints.

It is expected that it can encourage optimal community involvement in all stages of activities, starting from community organizing, preparation of program plans, determination of types of rural infrastructure development activities, and management plans.

Besides, it is expected that there will be an acceleration of the process of community independence and the realization of the synergy of various development actors in the context of poverty alleviation in rural areas by increasing the capacity of other stakeholders.

II. RESEARCH METHODS

The research approach used in this study, based on the type of data is a qualitative approach. Qualitative research is research that aims to understand a phenomenon of what is experienced by research subjects holistically, and describe it using words and languages, in a particular natural context and by using various scientific methods [3].

The type of approach in this research is descriptive. Descriptive research is a study that describes the existing problem solving based on data. The type of qualitative descriptive research that is used aims to obtain information regarding the extent of non-technical aspects, including worker motivation, community behavior, and technical support for the achievement of the Rural Infrastucture Development program objectives in South Sulawesi.

Regarding to the sampling aspect, this research belongs to survey research which is generally carried out to take a generalization from in-depth observations, yet the generalizations made can be more accurate if a representative sample is used, [4]. Meanwhile, from its nature, the design of this study is descriptive and correlational.

It can be concluded that in terms of aspects of methodology, this research is a descriptive qualitative analysis. The type can be in the form of survey research when viewed from the data collection technique, and the type of correlational research if viewed from the aspect of data analysis technique. The respondents in this study were people in general in the research area who were predicted to have an understanding of the five research variables, so that it was aimed at workers for the variables of motivation, participation and behavior, while the technical support aimed at the community in general. Questionnaire contains the answers of community perceptions of 5 (five) variables.

Population and Samples

The population of the study were people in the province of South Sulawesi. Based on the data retrieval plan, it was in two regencies that have different ethnicities or characters. South Sulawesi Province consists of 24 regencies with three ethnic groups, namely Bugis Ethnicity, Makassar Ethnicity and Toraja Ethnicity. In terms

of the population of South Sulawesi, it has a population of 8,771,970 people, the research locations were represented by two districts, namely; Gowa Regency as Makassar and Bugis ethnic group and Tana Toraja Regency representing the Toraja ethnicity, the determination of choosingis those regencies as the research location is on the aspect of ethnic character that can represent the province of South Sulawesi. Thus, the study population in the two regencies were 760,670 people in Gowa regency and 462,619 people in North Toraja and Toraja regencies.

Based on the provisions of the Structural Equation Modeling (SEM) method which is a method of discussion that the number of samples for 4 variables can include at least 200 respondents, and the number of variables as many as 5 variables can include at least 250 respondents. The number of respondents conducted through data surveys in the implementation of this study were 250 respondents.

Data analysis

Data analysis used in inferential statistical methods in this study is partial least square (PLS). PLS has several advantages compared to other analysis tools: (1) it can analyze complex models, (2) the data do not need normal distribution, (3) it can use small samples and (4) it can handle missing value.

This study was analyzed using primary data which was collected through questionnaires using the survey method. The questionnaire of this study consisted of questions about four variables or constructs measured by a number of indicators. Each respondent was asked to convey his or her perception of the indicators of these variables by selecting one number from scale 1 up to 5. Therefore, every construct needs to be tested for validity and reliability. The final stage of the analysis in this study was testing the hypothesis. The analysis tool used to test the hypothesis was Amos 24.0 software.

III. RESULT AND DISCUSSION

Based on the table above, it shows the test results for goodness of fit. The chi-square value is 787,654, from the table above the chi-square value is quite high yet a high degree of freedom value reduces the chi-square value so that it is fit. Furthermore, the value of the significance probability is 0,000, which means that the value is significant because the value is smaller than 0.05. Another criterion of goodness of fit indicating that the worth investigating model is the value of GFI, AGFI and TLI in which those three values are included in the criteria of good fit since it is near a critical value or cut off in which the GFI value is 0.788, AGFI is 0.737 and TLI is 0.646 while the cut-off must be greater than 0.90. In addition, it is also because the AGFI, GFI and TLI values are in the criteria that are sufficiently fit and it is feasible to be followed up.

Goodness-of-Fit	Critical Value	Result	Description	
Measure				
chi square	Expected to be insignificant	787.654	Fit	
Sig. Probablity	≤0.05	0.000	Significant	
RMSEA	Between 0.05 – 0.08	0.107	Sufficiently FIT	
GFI	≥0.90	0.788	Sufficiently FIT	
AGFI	≥0.90	0.737	Sufficiently FIT	
TLI	≥0.95	0.646	Sufficiently FIT	

 Table 1. The Goodness of Fit Test

Hypothesis testing

Subsequently, the submission of hypotheses was based on the results of the analysis of the PLS SEM model which contains all the supporting variables of the hypothesis test. The interpretation of the tables and figures above that explain the correlation between variables are as follows:

- Motivation on behavior has a coefficient with a positive direction. The calculation results show that the path coefficient is 0.680 with a p value of 0.000 (p <0.05) giving a decision that the motivation aspect has a significant effect on behavior.
- Motivation on community technical support has a coefficient with a positive direction. The calculation results show that the path coefficient is 0.620 with a p value of 0.000 (p <0.05) giving a decision that motivation has a significant effect on community technical support. The greater the motivation is, the greater the technical support of the community will be.
- Motivation on the achievement of RIDP has a coefficient with a negative direction. The calculation results show that the path coefficient is -0.060 with a p value of 0.680 (p> 0.05) giving a decision that motivation has no significant effect on the achievement of RIDP. This insignificant coefficient test result indicates that the direction of negative influence on the results of this analysis cannot be generalized. In other words, the level of motivation cannot directly explain the level of achievement of the Rural Infrastructure Development Program (RIDP).

- Behavior on the achievement of the RIDP has a coefficient with a positive direction. The calculation results • show that the path coefficient is 0.290 with a p value of 0.022 (p < 0.05) giving a decision that behavior has a significant effect on the achievement of the Rural Infrastructure Development Program (RIDP).
- Community technical support on the achievements of RIDP has a coefficient with a positive direction. The calculation results show that the path coefficient is 0.530 with a p value of 0.000 (p < 0.05) giving a decision that community technical support has a significant effect on the achievement of the Rural Infrastructure Development Program (RIDP).



Table 2. Hypothesis Testing								
			Est.	S.E.	C.R.	Р		
Behaviour	<	Motivation	0.308	0.068	4.510	***		
Technical	<	Motivation	0.385	0.074	5.222	***		
RIDP Achievement	<	Motivation	-0.057	0.138	-0.412	0.680		
RIDP Achievement	<	Behaviour	0.670	0.292	2.295	0.022		
RIDP Achievement	<	Technical	0.873	0.213	4.100	***		

This study showed that motivation has a significant effect on behavior and technical support, while the latter has a significant effect on the achievements of the RIDP. Infrastructure development was a key factor especially to improve the small manufacturing industry or other small and medium enterprises. However, community attributes such as the overall company are more important [5]. The best infrastructure is a service that comes from a series of public works, not just as a physical facility. In its concept, infrastructure can expand the rural economy by increasing the level of productivity, allowing expansion in the use of other resources and attracting resources. Infrastructure investment will usually have the greatest impact in integrated rural areas. Nonetheless, complementary basic infrastructure is very important to support economic activity, but this device must be seen as accommodating rather than causing growth. Local, market-based approaches are usually the best way to develop infrastructure and ensure that an area has basic infrastructure that can be maintained, supported and used effectively [6]. In this study, local approach must reflect the importance of behavioral motivation and technical support.

The similar programs seem to have positive impact on employment, annual payroll, and number companies in the recipient community [7]. The model of Cross-country estimates indicates that the contribution of infrastructure services to GDP is substantial and, in general, the costs of provision of those services [8]. Furthermore, the infrastructure can promote specialization and long-run growth, even though its effect on the latter is non-monotonic, reflecting its resource costs. The degree of specialization correlated with core infrastructure, as predicted by the model [9]. Through different mechanisms, research in Africa showed that the incentive system included provision of mobilization funds for the project; pool of plants for rural contractors; special allowances for project item rates; and giving letters of credit to secure loans for projects [10]. Furthermore, development in rural areas is needed to increase the public willingness, develop infrastructure and facilities; conduct conservation programs in the area; create vertical and horizontal job vacancy [11].

IV. CONCLUSION

This study concluded that, motivation has a significant effect on behavior and technical support. But, it did not have significant effect on the achievements of the RIDP. Behavior has a significant effect on the achievements of the RIDP. While, community technical support has a significant effect on the achievements of the RIDP.

ACKNOWLEDGEMENTS

The author would like to thank the Head of the City Regional Capital Coordination Agency in Makassar, South Sulawesi Province, the Director of Postgraduate School Brawijaya University the Rector of the Indonesia Moslem University

REFERENCES

- [1] Centre for Research on the Epidemiology of Disasters (CRED). EM-DAT (The International Disaster Database) [online]. EMDAT, Brussels http://www.emdat.be/, 2014
- [2] Watono, Antariksa, Nugroho, A. M. Tamsil, A. 2019. Influence of community participation, motivation, behavior and technical support on the achievement of the rural infrastructure development program in North Gowa and Toraja Regencies, South Sulawesi, Indonesia. International Journal of Civil Engineering and Technology (IJCIET) Volume 10, Issue 06, June 2019, pp. 163-180
- [3] Moleong, LJ. 2014. Metodologi Penelitian Kualitatif. Bandung: PT. Remaja Rosdakarya
- [4] Sugiyono, 2006.Statistika Untuk Penelitian. Bandung: CV Alfabeta,
- [5] Abdillah, W., and Hartono J., 2015. Partial Least Square (PLS). Penerbit Andi. Yogyakarta,
- [6] Fox, W. F., and S. Porca. 2001. *Investing in rural infrastructure*. International Regional Science Review 24 (1):103–133.
- [7] Halstead, J.M., Steven C. and Deller, S.C. 1997Public Infrastructure in Economic Development and Growth: Evidence from Rural Manufacturers, Journal of the Community Development Society, 28(2), , pp. 149-169, DOI: 10.1080/15575339709489780
- [8] Esfahani, H. S. & Ramirez, M. T., 2003. "Institutions, infrastructure, and economic growth," Journal of Development Economics, Elsevier, vol. 70(2), pages 443-477, April.
- [9] Bougheas, S. Demetriades, P. O. and Mamuneas, T. P. 2000.Infrastructure, specialization, and economic growth.Canadian Journal of Economics/Revue canadienne d'économique, 33(2):506–522,
- [10] Kandilov, I.T., Renkov, M. 2010. Infrastructure Investment and Rural Economic Development: An Evaluation of USDA's Broadband Loan Program. Growth and Change 41, pp. 165 - 191. 10.1111/j.1468-2257.2010.00524.x.
- [11] Syafey, I., Suyadi, Leksono, A.S., and Said, L. B. 2018, Relationship model of Community Participation, Behavior and Waste Management Performance in Makassar Indonesia, IOSR Journal of Business and Management 20(2), pp. 68-74

Watono. "Community Motivation and Behavior on the Achievement of Rural Infrastructure Development Program in Gowa and North Toraja Regencies of South Sulawesi Province." IOSR Journal of Engineering (IOSRJEN), vol. 09, no. 07, 2019, pp. 53-58.

International organization of Scientific Research