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Local Government Policy and Community Participation toward Urban Slums in Makassar City Indonesia

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Abstract: - Slum settlement is a problem faced by almost all major cities in Indonesia including Makassar city and even large cities in other developing countries. This study aimed to analyze the policy factors of local institutions and community participation in the growth of urban slums. Data were collected from respondents in Panakukang and Mariso Sub-Districts, Makassar City by survey method. Data were analyzed by adopting Structural Equational Modeling-PLS Ver 3.2.7. The results of the analysis obtained were as follows, first, local institutional policies on the causes of urban slums have a coefficient with a positive direction. The calculation results showed that the path coefficient is 0.149 with a t-statistic of 1.778 (p> 0.05) giving a decision that institutional policy has no significant effect on the causes of urban slums. Second, community participation in urban slum causes has a coefficient with a positive direction. The calculation results showed that the path coefficient is 0.450 with a t-statistic of 6.093 (p <0.05) giving a decision that public participation has a significant effect on the causes of urban slums. High community participation will increase efforts to resolve the problem of urban slums

Keywords: - policy, participation, growth, settlements, urban slums.

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I. INTRODUCTION

The development of cities in Indonesia both as a result of population growth and due to urbanization has encountered of serious urban problems, including growing slum areas. Slum settlement is a condition of residential areas where the layout of the building is irregular, the yard is narrow and even directly borders the road, and the buildings are packed together with inadequate facilities and infrastructure. Based on social aspects, slums are characterized by high population growth, with low income and health levels [1].

Basically the emergence of slum areas is due to the attraction of urban areas that have a high level of city facilities, services, job opportunities and access. The attraction is further strengthened by the influence of the rural area (non-urban), namely the low level of service facilities, the limited employment opportunities. Furthermore, rural areas are characterized by the difficulty of developing the economy and the reduction in productive land. Both of these factors influence the desire of the villagers to move to the city which causes various kinds of problems, which start from the low knowledge, skills, capital and awareness they have. This condition encourages the emergence of residential areas in urban areas [2].

The existence of slum areas in large and developing cities has become a serious problem for the community and the government both in terms of spatial, aesthetic, environmental and social aspects. This condition is caused by the existence of a culture of people who like to live in groups and do not take into account spaces for supporting facilities in residential areas in carrying out construction of houses. As a result, the built area does not pay attention to the spatial, environmental and social aspects which have the implication of giving a picture of a slum settlement area. In general, slum areas are formed in line with the development and compaction of the city environment. Slum environments not only provide bad visual effects, they also contribute poorly to the physical development of cities in general and only help residents to stay without providing positive social and economic impacts.

According to Law No. 1 of 2011 concerning Housing and Settlement Areas, it is stated that settlements are part of a residential environment consisting of more than one housing unit. This area has included the infrastructure, facilities, public utilities, and has support for other functions in urban or rural areas. Housing and settlement arrangements must be based on the principle of benefit, fair and equitable, togetherness and livelihood, self-confidence, affordability and environmental preservation.

Population settlements in the history of its development began with a collection of settlements on a small scale, then along with population growth the city experienced a development into a medium city and eventually developed into a big city. Cities in their growth are accompanied by socio-economic and cultural changes and their interactions with other cities and the surrounding area. Cities in Indonesia in the process of development are not accompanied by the construction of adequate urban facilities and infrastructure. Even what happens is that urban areas experience environmental degradation that has the potential to create slums. Some city dwellers are principled as a means of earning as much income as possible. Thus their principle must be economical in the broadest sense, namely saving land, financing development, operation and maintenance, including in obtaining materials and structural systems [3].

Based on how to own a house, in Indonesia system there can be classified into self-development by 71%, buy from a developer by 4%, buy not from a developer by 6% and others such as inheritance, grants, traditional houses and others by 19%. Housing ownership of only 10% is obtained through developers and non-developers so that the concept of building occupancy is both physical and non-physical buildings equipped with infrastructure and the rest is residential which is obtained outside the concept of decent good.

Thus an illustration that the existence of settlements both in Indonesia in general and Makassar City is the existence of houses more dominated by partial concepts that are built alone or individually community without proper residential and physical concepts and infrastructure utilities needed. The current conditions are still many slum neighborhoods, there is even a tendency to increase if there is no solution to the problem. In general, slum causes are classified into two factors, namely; physical factors and non-physical factors. As for physical factors, among others: 1) Low quality of buildings, 2) Limited facilities and infrastructure, 3) Limited area of housing, 4) Other physical factors. While, non-physical factors, among others: 1) Low net awareness of society, 2) Low orderly awareness, 3) Low awareness of law, 4) High economic demands, 5) Other non-physical factors.

The government as executor of mandates and responsibilities as stipulated in law No. 26 of 2007, which is authorized to plan, use and control utilization of the use of urban spatial planning. If the performance and implementation of the duties / authorities of the city government should be urban slums, it does not occur and at least is able to reduce urban slums. Several ways that have been carried out by the Makassar city government all this time include: Procurement of Healthy Houses, Clean Village Programs, Clean Fridays and Adipura and others. Urban slum handling cannot be separated from the implementation factor of city government task / authority performance, policy drafting as support for emerging problems and community participation as a manifestation of participation in overcoming slums in their environment. The objective of this study is to analyze the policy factors of local government and community participation toward the growth of urban slums.

II. RESEARCH METHODS

Judging from the type of data the research approach used in this study is a qualitative approach. What is meant by qualitative research is research that intends to understand the phenomenon of what is experienced by research subjects holistically, and by way of descriptions in the form of words and language, in a special natural context and by utilizing various scientific methods [4]. The type of approach to this research is descriptive. Descriptive research is research that seeks to explain the problem solving that is now based on data. The type of qualitative descriptive research used in this study is intended to obtain information about the extent of performance, institutional policy and community participation in relation to the growth of slums in the city of Makassar.

In accordance with the problems studied, in this study in terms of sampling classified as survey research. Survey research examines large and small populations by selecting and reviewing selected samples from the population to find relative incidence, distribution, and interrelation of psychological sociological variables [5]. Surveys that include definitions are often called sample surveys. In line with that, it states that survey research in general is carried out to take a generalization from in-depth observations, but the generalizations made can be more accurate if used a representative sample [6]. While from its nature, the design of this study is descriptive and correlational. Descriptive research is a study that seeks to obtain information regarding the phenomena observed today [7].

In this study trying to describe data about objects or research variables that exist in the Growth of Slums in the City of Makassar. Referring to problems in urban areas, in general, this research is seen in terms of the sample to be targeted, so the research is in the survey category. Survey research studies large and small populations by selecting and reviewing selected samples from the population to find the incidence, distribution, and relative interrelation of psychological sociological variables [5]. This kind of survey can be said as a sample survey. In this study will describe data about objects or research variables that exist for the Makassar City research area, including policy variables and community participation in urban areas.

In this study there are two exogenous variables (variables that are not influenced by other variables in a relationship model or which are often known as' independent variables' or 'independent variables), i.e. variables, Policy (X1) and Community Participation (X2), and endogenous variable (variable that is influenced by other variables in a relationship model or which is often known as the "dependent variable") which is the variable slum settlement (Y1). The modeling will involve all variable indicators so that all variables are latent. In accordance with the relationship model above, the data analysis technique that will be used in this study is structural equation modeling (SEM), where independent variables will be divided into a number of structured blocks.

Population and Samples

The population in the study were residents of the city of Makassar. Based on the data collection plan, there were two sub-districts from, each of which was set as many as respondents who targeted and community leaders and staff in the sub-district, including some residents in general as residents in the city.

Data analysis

After the research data is collected, the activities carried out are analyzing research data with data analysis techniques in accordance with the type of research. Data description used descriptive statistical analysis techniques. Data analysis used in inferential statistical methods in this study is partial least square (PLS). PLS has several advantages compared to other analysis tools, namely: (1) can analyze complex models, (2) data does not need normal distribution, (3) able to use small samples and (4) possible to handle missing value. This study was analyzed using primary data collected through questionnaires using the survey method. The research questionnaire consists of questions about four variables or constructs measured by a number of indicators. Each respondent was asked to convey his perception of the indicators for these variables by choosing one number from a scale of 1 to 5. Therefore, each construct needs to be tested for validity and reliability.

The final stage of the analysis in this study is testing the hypothesis. The analytical tool used to test the hypothesis is the Smart Partial Least Square (SmartPLS) software version 3.2.7. The reason for using Partial Least Square (PLS) is that there are several research hypotheses that do not yet have a solid theoretical foundation. Another reason is that PLS is able to analyze constructs with reflective and formative indicators [8].

The PLS is a powerful analytical method, because it is not based on many assumptions, data does not have to be normally distributed, the sample does not have to be large, and is able to explain the relationship between latent variables [9]. Another advantage of PLS is that it can be used on data with different scale types, able to manage multicollinearity problems between independent variables, and results remain robust even though there are abnormal and missing data [10].

The use of PLS as an analysis method requires several steps in structural equation modeling. The PLS steps can be explained as follows:

1. Designing a structural model (inner model) that is designing relationships between variables (constructs) based on the research hypothesis.
2. Designing a measurement model (outer model) that is designing the relationship between latent variables and indicators. This study uses formative indicators.
3. Constructing the path diagram.
4. At this stage a path diagram is made that describes the relationship between latent variables (constructs) both exogenous and endogenous. The path diagram
5. Convert the path diagram into the equation system.
6. Equation system that shows the relationship between latent variables (inner model) and the relationship of indicators to variables (outer model).

Research sites

The research location was the area of Makassar City, South Sulawesi Province, and focused on two sub-districts, namely Panakukang and Mariso sub-districts. The object of the research is the growth of slums in Makassar City, including performance variables and local institutional policies and community participation in urban slums. The research subject is the data source that was asked for information in accordance with the research problem. As for what is meant by data sources in research is the subject from which data is obtained [7]. To get the right data, it is necessary to determine the informants who have competence and are in accordance with the data needs (purposive). This study focused on the community in two sub-districts, as well as the ranks of the relevant government agencies in the city. This study describes how the community responds as an object, judging from the aspects of performance and policy and community participation correlating with the growth of urban slums.

III. RESULT AND DISCUSSION

This study uses a PLS SEM model and is processed with Smart PLS version 3.2.7 to evaluate the research model. Testing the hypothesis through two stages, namely testing the outer model and testing the inner model. The outer model test aims to determine the value of the latent variable correlation, cross loadings, validity and construct reliability and R Square (R2). Inner model testing aims to determine the value of path coefficient, inner T-statistical model, and the total effect value that shows the level of variation in changes in the independent variable on the dependent variable [10].

Evaluation of Measurement Model (Outer Model)

In the data analysis technique using SEM-PLS, there are three criteria for assessing the measurement model (outer model), namely convergent validity and discriminant validity through cross loading and root average variance extracted, and composite reliability. To test the unidimensionality of each construct by looking at the convergent validity of each construct indicator, the individual reflexive measure is said to be high if it correlates more than 0.70 with the construct measured. But according to Chin, 1998 for the initial research phase of the development of a scale of measurement the loading values of 0.5 to 0.6 were considered sufficient. In this study we will use a loading factor limit of 0.50. Based on the results of data processing, it can be seen the magnitude of convergent validity as follows:

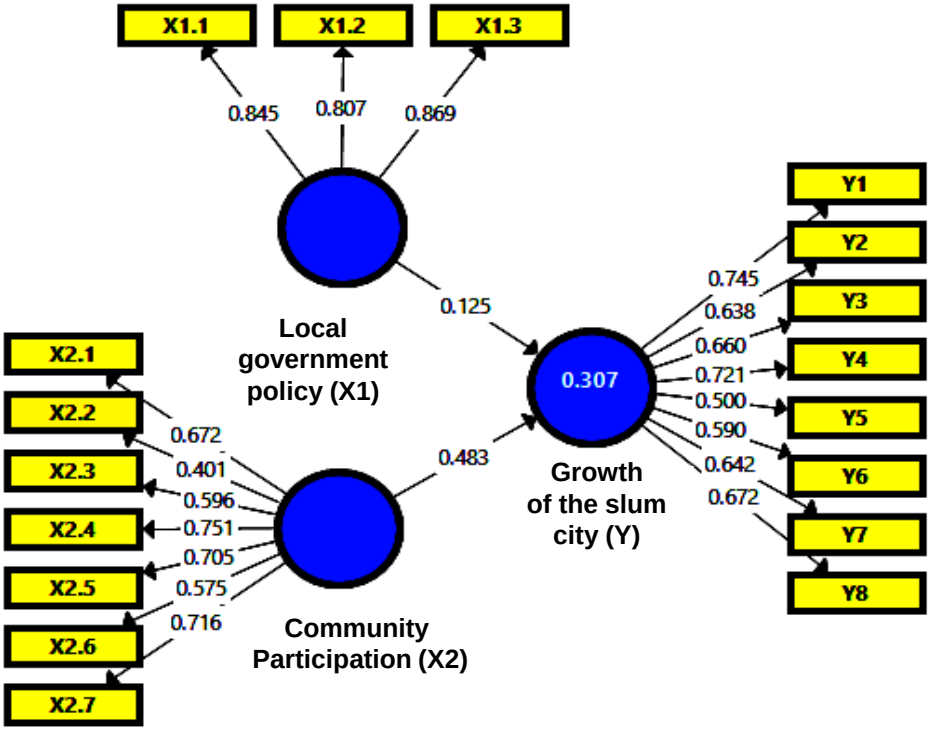

Figure 1. Preliminary Outer Loadings Test Model

Convergent validity test in the first stage was assessed based on the value of outer loading> 0.5. The outer loading value for the x2.2 indicator is 0.401 from the Community Participation variable (X2) which shows that the outer loading value that was owned is less than <0.5, so the indicator of X2.2 must be removed or eliminated from the research model because it did not meet valid conditions and then the second stage of the test was carried out to determine the value of convergent validity. The following was the result of processing data from the second phase of the test model:

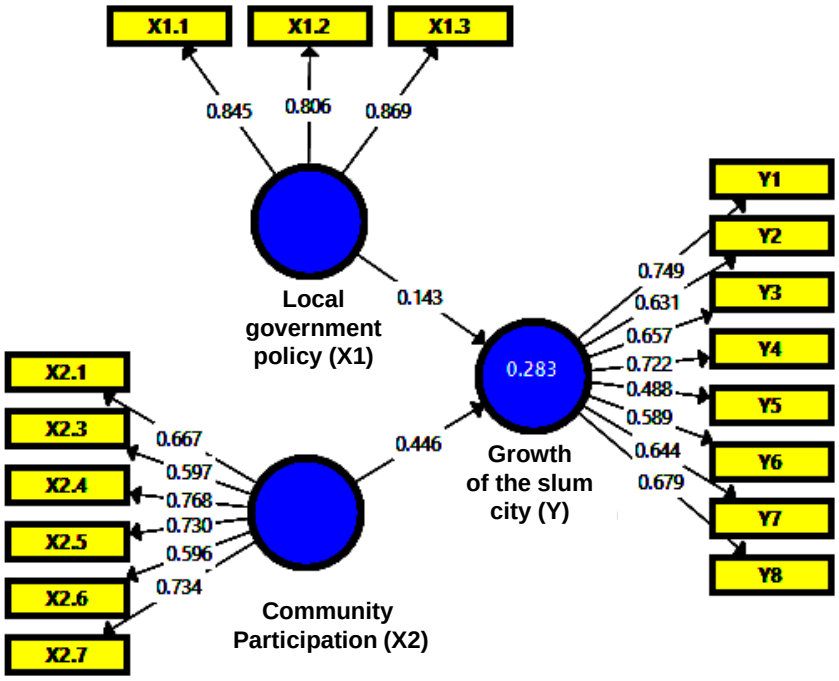

Figure 2. Second Outer Loadings Test Model

After testing the convergent validity in the second stage, it was assessed based on the value of outer loading> 0.5. The outer loading value for the Y5 indicator is 0.488 from the Urban Slum Settlement Growth variable (Y) which indicated that the outer loading value is smaller than <0.5, so that the indicator of Y5 must also be excluded or eliminated from the research model because it did not meet the requirements valid, so proceed to the third stage of model testing. The following was the result of processing the Convergent Validity data from the third stage of the test model:

Table 1. Third Phase Convergent Validity Test

Variables	Indicators		Score	Validity
Local government policy (X1)	x1.1	Planning	0.846	Very high
	x1.2	Utilizing	0.804	Very high
	x1.3	Controlling	0.870	Very high
Community participation (X2)	x2.1	Sensitivity	0.670	High
	x2.3	Confidence	0.597	Fair
	x2.4	Initiative	0.767	Very high
	x2.5	Interes/will	0.729	Very high
	x2.6	Solidarity	0.592	Fair
	x2.7	Support	0.737	Very high
Community participation (X2)	y.1	Urbanisation	0.757	Very high
	y.2	Land demand	0.632	High
	y.3	Accessibility	0.647	High
	y.4	Infrastructure	0.730	Very high
	y.6	Education	0.582	Fair
	y.7	Social and economic	0.647	High
	y.8	Social and culture	0.689	High

Based on the results of the algorithm's third test, it can be concluded that the indicators in the questionnaire of this study have met the convergent validity requirements because the value of outer loading> 0.5, the data showed that all indicators are valid on each exogenous and endogenous variable having good loading factors above than 0.50, meaning that the indicator used is correct for each construct. While the indicators that have a loading factor with a value below 0.60 means that this indicator can be maintained for models that are still in the development stage. The following was the result of processing data from the third stage of the test model:

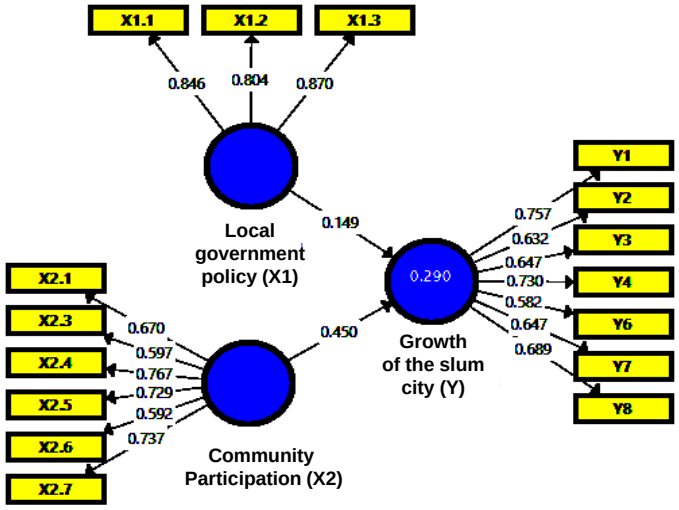

Figure 3. Third Outer Loadings Test Model

After convergent validity, the next evaluation was to look at discriminant validity by comparing the square root of average extracted (AVE) value of each construct with a correlation between the construct and other constructs in the model. If the AVE square root value of each construct was greater than the correlation value between constructs and other constructs in the model, it was said to have good discriminant validity. Based on the results of data processing, the AVE value can be obtained and the square root of average extracted (AVE) value and the magnitude of the correlation value for each construct as follows:

Table 2. Root Value AVE

Variables	Average extracted (AVE)	Square Root of average extracted (SRAVE)
Local institutional policy (X1)	0.706	0.840
Community participation (X2)	0.570	0.755
Growth of the slum city (Y)	0.551	0.742

From table 2, it can be explained that all variables have AVE values> 0.5, and AVE root values are higher for correlation values between constructs and other constructs, so it can be concluded that evaluation of model measurements has good discriminant validity, as seen in the table 3.

Table 3. Discriminant Validity

Indicators	**Local institutional policy (X1)**	**Community participation (X2)**	**Growth of the slum city (Y)**
x1.1	**0.846**	0.481	0.356
x1.2	**0.804**	0.362	0.252
x1.3	**0.870**	0.379	0.309
x2.1	0.437	**0.670**	0.341
x2.3	0.294	**0.597**	0.351
x2.4	0.280	**0.767**	0.414
x2.5	0.358	**0.729**	0.433
x2.6	0.273	**0.592**	0.241
x2.7	0.388	**0.737**	0.316
y1	0.459	0.446	**0.757**
y2	0.085	0.262	**0.632**
y3	0.152	0.316	**0.647**
y4	0.356	0.429	**0.730**
y6	0.165	0.319	**0.582**
y7	0.096	0.288	**0.647**
y8	0.215	0.315	**0.689**

The last evaluation of the measurement model is to determine the composite reliability value. The composite reliability value> 0.7 can be said that the construct has high reliability or reliability. From the results of data processing, it can be seen the composite reliability of each variable as in table 4 below:

Table 4. Composite Reliability All Variables

Variables	Composite Reliability	Note
Local institutional policy (X1)	0.878	Very high
Community participation (X2)	0.840	Very high
Growth of the slum city (Y)	0.851	Very high

In table 4, explains that each variable has a composite reliability value> 0.7, thus it can be concluded that the construct can be said to be reliable.

Evaluation of Structural Models (Inner Model)

After evaluating the measurement model, the next was evaluating the structural model test by looking at the R2 value of the relationship between constructs. The R2 value stated that the variation of endogenous constructs can be explained by exogenous constructs that are identical to the magnitude of the contribution of exogenous constructs to endogenous constructs. From the results of data processing, it can be seen in the following figure (Figure 4):

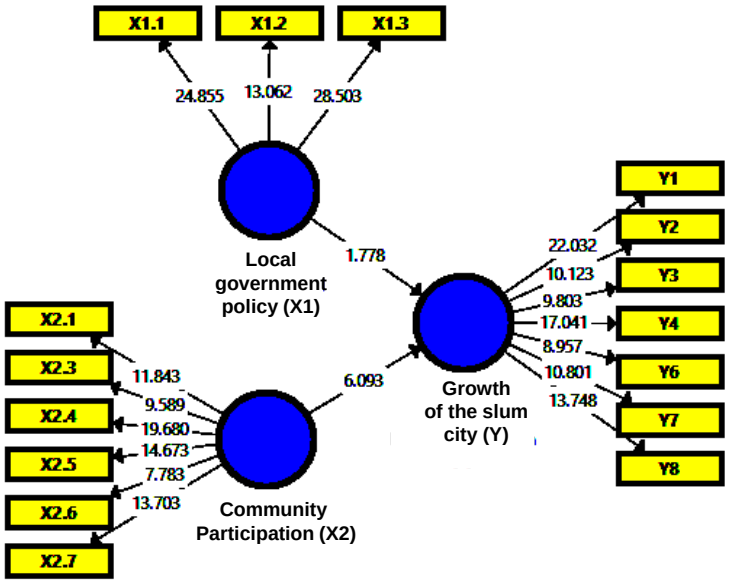

Figure 4. Inner Model Test Results

From the figure 4, functional equations can be formed in the simultaneous Structural Equation model (SEM) model with reduced form as follows:

Equation:

$Y = 0.149X1 + 0.450X2 + \varepsilon$ R2 Y = 0.290

Hypothesis testing

Testing hypotheses was basically to test theories based on empirical evidence in the field. From the processed data, it can be seen the magnitude of the relationship between exogenous variables towards endogenous both direct relationships, indirect relationships and total relationships and significance tests as in the following table:

Table 5. Structure of Direct Influence

Construct	Prediction	Direct effect	P Value	Note	Decisions
X1 ---> Y1	Significant	0.149	0.076	Positive and not significant	Rejected
Y2 ---> Y3	Significant	0.450	0.000	Positive and not significant*	Accepted

Note: *) Significant at the test level 5% (0.05)
Local institutional policy (x1) -> Growth of urban slums (y)
Partition [community population (x2) -> Growth of urban slums (y)

Hypothesis models are calculated using SmartPLS version 3.2.7 to determine the significance of path coefficients that exist in the model or the significance of hypothesis support [9, 10]. The path coefficient was significant if p was less than 0.05, a summary of the results of the inner model was explained in Figure 4 and Table 5. The interpretation of the tables and figures explains the relationships between variables as follows:

1. The policy of local institutions towards the causes of urban slums has a coefficient with a positive direction. The calculation results show that the path coefficient was 0.149 with a t-statistic of 1.778 (t statistics <t table) with a value of P Value 0.076 where (P value> 0.05) gives a decision that institutional policy has no significant effect on the causes of urban slums.
2. Community participation in urban slum causes has a coefficient with a positive direction. The calculation results show that the path coefficient of 0.450 with a t-statistic of 6,093 (t statistics> t table) with a value of P Value 0.000 where (the value of P Value <0.05) gives a decision that public participation has a significant effect on the causes of urban slums. High community participation will increase efforts to resolve the problem of urban slums.

From the results of the evaluation model it can be seen that the cause of the slum city is influenced by community participation. This means that the development of the slum city is largely determined by people's behavior. Studies conducted in several countries in Southeast Asia show that the importance of forms of security (tenure), the need for sustainable economic activities to be incorporated into the upgrading, is critical of the importance of governance and institutions and the significance of the community and elements of civil society [11]. The form of community participation must be directed as a form of constructive behavior so that efforts to deal with the slum city can be done with the support of all parties. This is due to initiatives led by non-governmental organizations (NGOs), community-based organizations (CBOs) or other self-help groups that might get good community support.

Efforts to do upgrading carried out in Nairobi, Kenya, reveals that use an adaptive management approach and strongly encourage community involvement must be the goal of institutions that provide slum improvement projects and that this can produce effective and successful development outcomes [12]. In the Indonesian context, policy changes need to be balanced with calls for greater leadership, political commitment and recognition of contextual responses when developing slum improvement policies established in sustainable urbanization policies and strategies. This is because efforts to change the policy of increasing villages and slum settlements from in-situ solutions to vertical housing towers are considered to be less successful. This is because these changes do not appear to be appropriate in accommodating a way of life that is practiced in the context of village adaptive urbanism. The way the city government manages informal settlements and slums by trying to reshape and restructure people's lifestyles to align with formal market steps has a major impact on existing disadvantaged communities [1]. It was suggested a holistic approach to address the multi-faceted sustainability issues that affect the livelihoods of slum dwellers within the framework of context-driven development policy of the country [13].

IV. CONCLUSION

1. The coefficient of Cd was influenced by the ratio of which and yo the greater the / yo, the Cd gets smaller and vice versa.
2. If the gate opening was open and the water level was upstream, then the Cd coefficient will be directly proportional to the incoming discharge and if the gate openings change then Cd was inversely proportional to the inlet discharge.
3. The amount of the discharge that passes on the gate depends on the height of the water at the top of the gate, the height of the openings and the width of the gate.
4. The smaller the openings with the water upstream remain, the greater the flow velocity below the gate causes the depth of y_1 to be smaller and the contraction coefficient to increase

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REFERENCES

[1] Jones, P. 2017. Formalizing the Informal: Understanding the Position of Informal Settlements and Slums in Sustainable Urbanization Policies and Strategies in Bandung, Indonesia. Sustainability, 9, 1 – 27.

[2] United Nations General Assembly. New Urban Agenda

[3] Sobirin, 2001. *Distribusi Permukiman dan Prasarana Kota. Studi Kasus Dinamika Pembangunan Kota di Indonesia*. dalam Raldi Hendro,dkk (ed) Dimensi Keruangan Kota, Teori dan Kasus Jakarta: UI

[4] Moleong, LJ. 2014. Metodologi Penelitian Kualitatif. Bandung: PT. Remaja Rosdakarya

[5] Kerlinger, 2006. *Azas-azas Penelitian Behaviour*. Edisi 3 Cetakan 7. Yogyakarta: Gajah Mada University Press.

[6] Sugiono, 2006. *Metode Penelitian Kuantitaif, Kualitatif, dan R & D*. Bandung: Alfabeta

[7] Suharsimi, A. 1989. Manajemen Penelitian. Jakarta: Rineka Cipta.

[8] Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. 2017. A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM) (2 ed.). Thousand Oaks, CA: Sage.

[9] Ghozali, I. 2011. "*Aplikasi Analisis Multivariate Dengan Program SPSS*". Semarang: Badan Penerbit Universitas Diponegoro.

[10] Hartono, Jogiyanto dan Abdillah, 2009. Konsep dan Aplikasi PLS. Yogyakarta: BPFE.

[11] Minnery, J., Argo, T., Winarso, H., Hau, D., Veneracion, C., Forbes, D., & Childs, I. 2013. Slum upgrading and urban governance: Case studies in three South East Asian cities. Habitat Int., 39, 162–169. https://doi.org/10.1016/j.habitatint.2012.12.002

[12] MacDonald, M. C., Meredith T., 2017. Community-supported slum-upgrading: Innovations from Kibera, Nairobi, Kenya, Habitat International, 60, pp. 1 – 9.

[13] Uddin, N., 2018. Assessing urban sustainability of slum settlements in Bangladesh: Evidence from Chittagong city, Journal of Urban Management, 7 (1), pp. 32-42.

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