Enlargement of Amanatun, South Central Timor Regency

Jarot Soleman Ndaong[1], Surjono[2], I Nyoman Suluh Wijaya[3]

[1]Magister Program of Regional and City Planning Department, Engineering Faculty, Brawijaya University
[2,3]Regional and City Planning Department, Engineering Faculty, Brawijaya University

Abstract— *South Central Timor Regency is one of the Regency within the Province of East Nusa Tenggara. It lies on 3955,36 km2 with 32 Sub-Districts and population of 459.310 people which made it as Regency with most Kecamatan (Sub-District) and most populated area in Province of East Nusa Tenggara. Thus, due it its large size, less optimum service of regional government regarding might occur. One solution offered for this issue was regional enlargement, which become the proposed enlargement of Amanatun. Amanatun was taken from the name of a kingdom during West Indies governance, which was includes in Afdeeling (Regency) South Central Timor. This proposition of Amanatun enlargement was having its own background that became the trigger and objectives of the people who desire this enlargement. Objectives of this study was to discover the triggers and objectives expected from Amanatun enlargement and whether there was relationship between the trigger and objectives of Amanatun enlargement also what is the form of this enlargement according to the prevails laws and regulations. Analysis process was using Partial Least Square (PLS) and appropriateness level for enlargement was based on government regulation guidelines.*

Keywords— *regional enlargement, trigger, objectives, relationship between effect of trigger toward objectives of enlargement, PLS, appropriateness level of enlargement based on laws and regulations.*

I. INTRODUCTION

Regional development in Indonesia particularly regional enlargement started to flourish after 1998. Since there was the change from centralized to decentralization (autonomy), a region could be developed and become independent. This was supported by policy regulating about regional government such as UU 22 of 1999 with PP 129 of 2000 replaced with UU 32 of 2004 with PP 78 of 2007 and UU 23 of 2014.

There were various aspect which affect regional enlargement in Indonesia, such as religious differences, ethnic/cultural differences, development imbalances, vastness of regional area, political factor either regarding power or political representation within regional government also the existence of regional fiscal fund. Regional enlargement was aimed to improve community's welfare such as giving optimum service for citizen, development of local potential so that it would increase economic growth, opened more employment sector, lessened disparity between central and regional, regional potential can be managed in good and faster manner, improved safety and order, also better relationship between central and regional government.

Regarding issue and plans concerning regional enlargement developed in TTS Regency since 2013 until date, author would like to conduct review about the proposed enlargement, started with answering questions such as what triggers this enlargement and what are the objectives to achieved also what is the form of enlargement based on the prevails laws and regulations.

Study site was located in South Central Timor Regency. Its population in 2016 was 443.111 people, and by far is the most populated area compared to other Regency in the Province of NTT. From number of Sub-Districts, TTS Regency has 32 sub-districts and thus known as Regency with the most sub-districts in the Province of NTT. This might the reason behind less optimum service for its citizen. Enlargement plan of Amanatun consist of 8 sub-districts (Amanatun Utara, Amanatun Selatan, Boking, Toianas, Nunkolo, Kokbaun, Santian and Noebana).
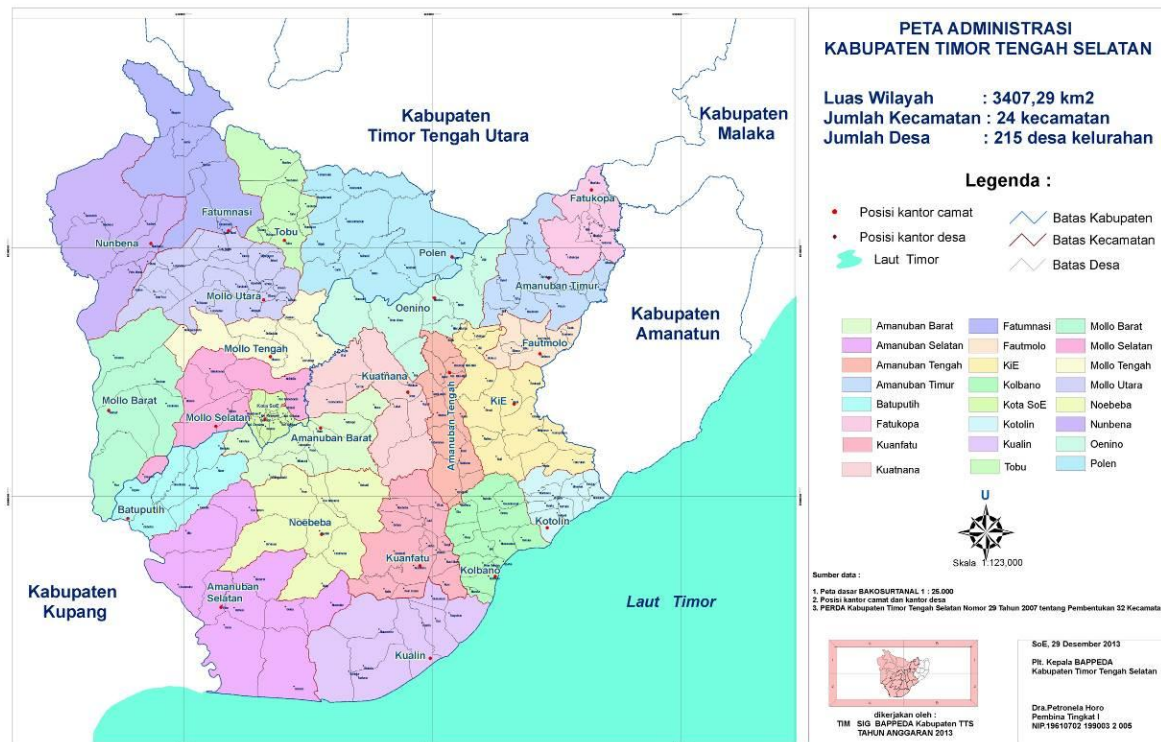
FIGURE 1. SOUTH CENTRAL TIMOR REGENCY (AFTER AMANATUN ENLARGEMENT)

II.   MATERIALS AND METHODS

This study is a quantitative descriptive study with *Partial Least Square* (PLS) approach, with purposive sampling and Likert scale as its sample collection technique. Gravimetric and quota method in calculating the appropriateness of Amanatun enlargement was based on Government Regulation (*Peraturan Pemerintah)* No 78 of 2007. Formulation of study variables was used as the main reference to answer problematic questions and act as basic reference for analysis processing.

TABLE 1
STUDY VARIABLES

No	Objectives	Variables	Sub Variables
1.	Discover the trigger of Amanatun enlargement	Trigger of enlargement	• Religious differences • Ethnic/cultural differences • Economic imbalances • Vastness of regional area • Political reason • Fiscal fund allocation
2.	Discover the objectives of Amanatun enlargement	Objectives of enlargement	• Improved service for citizen • Faster growth in democratic life • Faster regional development • Labor absorption • Faster regional potential management • Improved safety and order • Improved harmony relationship between central and regional
3.	Discover the effect of the trigger toward the objectives of enlargement	Trigger and Objectives	Hypothetical test
4.	Discover the appropriateness of Amanatun enlargement based on the existed UUs and PPs.	PP 78 of 2007	Appropriateness Level of Amanatun Enlargement

Source: Referential Compilation

2.1   Data Collection Method

Data collection method used in this study was through primary and secondary survey. Primary survey was done through observation, interview and questionnaire dispersion. Number of respondent in this study were 40 respondents with purposive sampling approach in which respondent was selected under consideration that he or she was informed and involved in the process of Amanatun enlargement. Secondary survey was done by collecting data related with Amanatun enlargement.

2.2   Data Analysis Technique

In analyzing the trigger of enlargement, objectives of enlargement and relationship/effect of the trigger toward the objectives of Amanatun enlargement, we use Partial Least Square (PLS) analysis with sample collection technique using purposive sampling, under the consideration that sample determination was taken from:

- Unknown population

- Not all people involved in Amanatun enlargement

- Minimum samples in PLS is 30-100

Number of respondents in this study was 40 respondents, in which they were asked to answer the questions by using Likert scale. Likert scale was used to find social symptom and event occurs among people by measuring perception, attitude and opinion of individuals within community, whereas variables would be made into sub-variables and then used as measurable indicators (Sugiyono, 2012). PLS analysis is part of Structural Equation Modelling (Ghozali, 2014). Several benefits of PLS are:

- Distribution free approach

- PLS objective is to predict or to developed a theory

- Small sample (30-100 samples)

- Indicator was reflective and formative

- It can be used as an alternative for structure equation modelling which has weak theory

- PLS can be used for theoretical testing and also can be used for exploratory or to test relationship which has no theory of it.

- PLS is using SmartPLS and VisualPLS softwares.

Steps in PLS consist of:

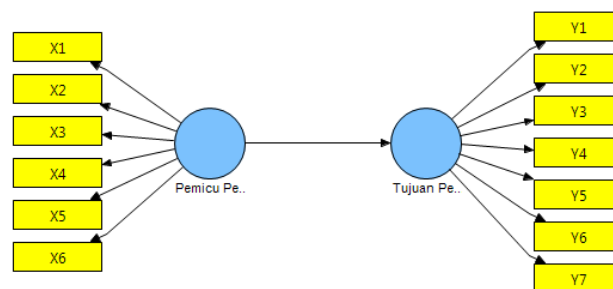**Step 1: Creating a path diagram**

FIGURE 2: PATH DIAGRAM MODEL OF PLS WITH *SMARTPLS 3.0 SOFTWARE*

Step 2: Conversion of path diagram into structural model

a.   Struktural model *(inner model)*

b.   Measurement model *(outer model)*

Step 3: Conduct *Godness of Fit* evaluation

c.   Evaluation of measurement model

d.   Evaluation of structural model

Step 4: Hypothetical testing (Interpretation)

Hypothetical testing in PLS was using T-test or *t-statistic* and *p-values*.

TABLE 2
VARIABLES IN PLS MODEL

No	Latent Variables	Manifested Variables (Indicator)
1.	Objective of Enlargement (Y)	Y1 = Improved service for citizen
		Y2 = Faster democratic growth for citizen
		Y3 = Faster regional economic development
		Y4 = Labor absorption
		Y5= Faster management concerning regional's potential
		Y6 = Improved safety and order in regional area
		Y6 = Faster management concerning regional's potential
		Y6 = Improved safety and order in regional area
		Y7 = Improved relationship between central and regional government and vice versa
2.	Trigger of Enlargement (X)	X1 = Religious differences
		X2 = Ethnic/cultural differences
		X3 = Economic imbalances
		X4 = Vastness area of regional
		X5 = Political reason
		X6 = Fiscal fund allocation

Source : Analysis result

For enlargement analysis based on PP 78 of 2007, quota and gravimetric analysis was used to determine the appropriateness of regional enlargement.

III.   RESULT AND DISCUSSION

3.1   Partial Least Square (PLS) Analysis

PLS analysis was using *SmartPLS 3.0 software*. Steps in this PLS analysis were:
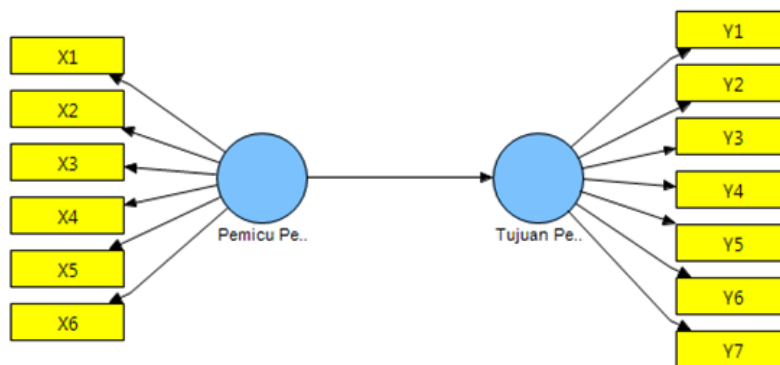
3.1.1   Constructing path diagram

FIGURE 3. PATH DIAGRAM OF PLS

3.1.2   Conversion of path diagram into equation system

a.   Structural model *(inner model)*

$$Y = \gamma X + \varsigma$$

b.   Measurement model *(outer model)*

i.   Variabel X (reflektive)

$$X1 = \lambda y \ X + \xi 1$$
$$X2 = \lambda y \ X + \xi 2$$
$$X3 = \lambda y \ X + \xi 3$$
$$X4 = \lambda y \ X + \xi 4$$
$$X5 = \lambda y \ X + \xi 5$$
$$X6 = \lambda y \ X + \xi 6$$

ii.   Variabel Y (reflektive)

$$Y1 = \lambda y \ Y + \xi 1$$
$$Y2 = \lambda y \ Y + \xi 2$$
$$Y3 = \lambda y \ Y + \xi 3$$
$$Y4 = \lambda y \ Y + \xi 4$$
$$Y5 = \lambda y \ Y + \xi 5$$
$$Y6 = \lambda y \ Y + \xi 6$$
$$Y7 = \lambda y \ Y + \xi 7$$

3.1.3 Conduct Goodness of Fit evaluation

Goodness of Fit evaluation was done to find out model's appropriateness, either for measurement model (outer model) and structural model (inner model).

a.   Evaluation of measurement model (outer model)

For evaluation of measurement model (outer model), we used PLS with validity and reliability test, validity test were convergent validity and discriminant validity. Convergent validity was determined by outer loadings value > 0,5
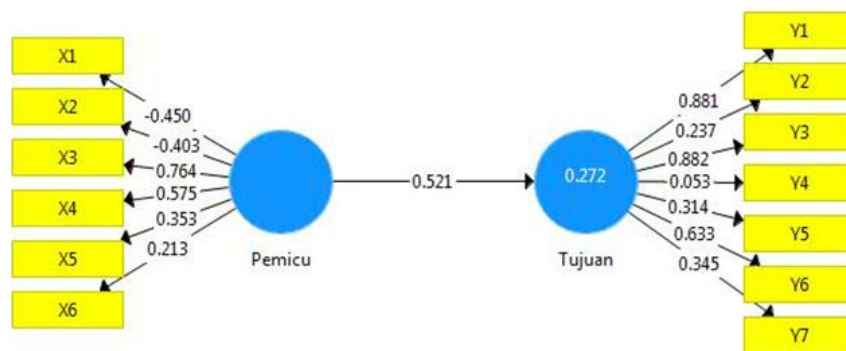

FIGURE 4. CALCULATION RESULT FOR *PLS ALGORITHM*

TABLE 3
LOADINGS VALUE BETWEEN INDICATORS

Variables		Nilai Loading	Keterangan
X (Trigger of Enlargement)	X1	-0.450	Insignificant
	X2	-0.403	Insignificant
	X3	0.764	Valid and significant
	X4	0.575	Valid and significant
	X5	0.353	Insignificant
	X6	0.213	Insignificant
Y (Objective of Enlargement)	Y1	0.881	Valid and significant
	Y2	0.237	Insignificant
	Y3	0.882	Valid and significant
	Y4	0.053	Insignificant
	Y5	0.314	Insignificant
	Y6	0.633	Valid and significant
	Y7	0.345	Insignificant

Source : SmartPLS processing results

From *PLS Algorithm* results, indicators X1, X2, X4, X5, X6, Y2, Y4, Y5, Y6 and Y7 were omitted because it has *loading value* less than 0.5 and insignificant. After omission completed, it was recalculated.
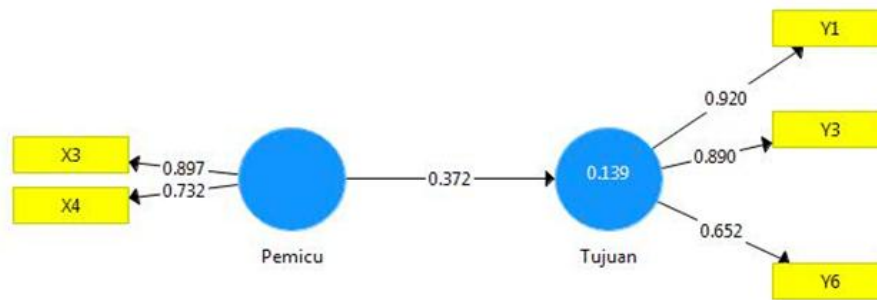
FIGURE 5. RECALCULATION RESULT FOR *PLS ALGORITHM*

TABLE 4

LOADING VALUES AND VARIANCE INFLATION FACTOR (VIF) BETWEEN INDICATORS

Variables		loadingValue	VIF Value	Information
X (Trigger of Enlargemen)	X3	0.897	1.145	Valid and significant
	X4	0.732	1.145	Valid and significant
Y (Tujuan Pemekaran)	Y1	0.920	2.034	Valid and significant
	Y3	0.890	1.995	Valid and significant
	Y6	0.652	1.358	Valid and significant

Source : SmartPLS processed results

From the table above it can be seen that *loading value* of each indicator was above 0.5 and its *variance inflation factor* (VIF) value was >0.1 and <10. For *discriminant validity*, it can be seen by looking at *cross loading* correlation value of indicator with its construct and its *average variance extracted* (AVE) of each construct whereas good model would have AVE value of its construct >0.50. *Cross loading value* in this model can be seen from table below.

TABLE 5

***CROSS LOADING* VALUES**

	X (trigger)	Y (objective)
X3	0.897	0.359
X4	0.732	0.233
Y1	0.386	0.920
Y3	0.323	0.890
Y6	0.146	0.652

Source: SmartPLS processing result

From the table above, it can be seen that *cross loading* value of trigger variables with its indicators (X3, X4) was higher than objective variables. The opposite also occur in which *cross loading* value of objective variables with its indicators (Y1, Y3 and Y6) was higher than trigger variables. This indicated that manifested variables value of its latent variables has better prediction. AVE values for each variable can be viewed in the table below.

TABLE 6

***AVERAGE VARIANCE EXTRACTED* (AVE) VALUES**

Variables	Average variance extracted (AVE)
Trigger of Enlargement	0.670
Objective of Enlargement	0.688

Source : SmartPLS processing result

From the table above it can be seen that AVE value for each construct was above 0.5, it means that the construct is valid. Reliability test was using *composite reliability value (pc) > 0.7*.

TABLE 7

***COMPOSITE RELIABILITY* VALUES**

Variables	Composite reliability	Information
Trigger of Enlargement	0.801	Reliable
Objective of Enlargement	0.866	Reliable

Source : SmartPLS processing result

From the table above, it can be concluded that for both trigger of enlargement and objective of enlargement variables it has *composite reliability* value >0.7 thus indicators used in these variables (X3, X4, Y1, Y3 and Y6) has good reliability or able to measure its construct. Therefore, measurement model *(outer model)* can be written as follows:

X3 = 0.897 Trigger + 1.145
X4 = 0.732 Trigger + 1.145
Y1 = 0.920 Objective + 2.034
Y3 = 0.890 Objective + 1.995
Y6 = 0.652 Objective + 1.358

b.   Evaluation of structural model (inner model)

Testing toward structural model was done by looking at its *R-sqaure* and *Q-square* value with range $0<Q^2<1$, whereas closer to 1 means better model. For *R-square* and *Q-square* values, it was shown in Table 8.

TABLE 8
R-SQUARE AND *Q-SQUARE* VALUES

	R Square	Q Square
Objective of Enlargement	0.139	0.139

Source : SmartPLS processing result

From the table above, it can be seen that *R-square* and *Q-square* values were > 0 which means that model was also fit with the data or able to convey the phenomenon on the field. Structural model *(inner model)* can be written:

$Y = \gamma X + \varsigma$

Objective of Enlargement (Y1,Y3,Y6) = 0.372 Trigger of Enlargement (X3,X4) + 1

3.1.4 Hypothesis Testing

Hypothesis testing in PLS was done by *resampling bootstrapping* method using *T-statistic*. The hypothesis was "there is triggering effect of enlargement toward objective of enlargement in Amanatun".

H0 : = 0 (there is no relationship/effect)

Ha : ≠ 0 (there is relationship/effect)

Result of T-test in PLS can be seen from table below:

TABLE 9
MEAN, STDEV, T-VALUES, P-VALUES

	Original Sample (O)	Sample mean (M)	Standard Deviation (stdev)	T Statistics (O/STDEV)	P Value
Pemicu>tujuan	0,372	0,396	0,184	2,027	0,043

Source : SmartPLS processing result

From the table above it can be seen that *T-statistic* for trigger > objective of enlargement is 2,027. A hypothesis was said to have significant effect/relationship x toward y if *T-statistic* ≥ 1,96 while *P value* is 0,043 which means lower (<) than *alpha* (0,05) and thus null hypothesis was rejected (Ha:≠0). Thus conclusion of this hypothesis testing is there was effect/relationship between trigger of enlargement and objective of enlargement for Amanatun region.

3.2   Analysis of Appropriateness Level based on PP of 2007

In analyzing appropriateness level for Amanatun enlargement using PP 78 of 2007, comparison was conducted between enlargements analyses of Amanatun with other Regency existed in the Province of East Nusa Tenggara.

Based on the appendix of Government Regulation (PP) No 78 of 2007, there were 11 factors and indicators with score range from 1-5,

- Score 5 was in a category of very capable with indicators value requirement ≥ 80% of average value.
- Score 4 was in category of capable with indicators value requirement ≥ 60 % of average value.
- Score 3 was in category of less capable with indicators value requirement ≥ 40% of average value.

- Score 2 was in category of incapable with indicators value requirement ≥ 20 % of average value.
- Score 1 was in category very incapable with indicators value requirement < 20 % of average value.

TABLE 10
ANALYSIS AND SCORING OF INDICATORS FOR AMANATUN ENLARGEMENT BASED ON PP 78 OF 2007

No	Factors and Indikators	Score		Bobot	Number	
		Kab.Induk TTS	Amanatun Enlargement		Kab.Induk TTS	Amanatun Enlargement
1.	Demography					
	1. Number of people	5	5	15	75	75
	2. Population density	5	5	5	25	25
	Total Demography score				**100**	**100**
2.	Economy Capability					
	1. Domestic product input for regional gross non oil and gas per capita	5	4	5	25	20
	2. Economy growth	5	5	5	25	25
	3. domestic product input for regional gross non oil and gas	5	3	5	25	15
	Total economy capability score				**75**	**60**
3.	Regional Potential					
	1. Bank ratio	5	2	2	10	4
	2. shopping group ratio / 10.000 citizen	5	5	1	5	5
	3. Market ratio / 10.000 citizen	5	4	1	5	4
	4. Elementary school ratio / citizen eligible for primary school	5	5	1	5	5
	5. Middle school ratio / citizen eligible for secondary school	5	5	1	5	5
	6. High school ratio / citizen eligible for tertiary school	5	5	1	5	5
	7. Rasio Fas.Kesehatan per 10.000 citizen	5	5	1	5	5
	8. Medical personnel ratio	5	4	1	5	4
	9. Motor vehicles	5	4	1	5	4
	10. Electricity subscribers	5	4	1	5	4
	11. Road length / number of vehicles	5	5	1	5	5
	12. High school diploma worker	5	4	1	5	4
	13. Bachelor degree worker	5	3	1	5	3
	14. Civil servant ratio	5	5	1	5	5
	Total Regional Potential Score				**75**	**62**
4.	Financial Capability					
	1. Local income own	5	2	5	25	10
	2. Own revenue to number of citizen ratio	5	5	5	25	25
	3. Own revenue ratio compare to gross regional domestic product	5	5	5	25	25
	Total Financial Capability Score				**75**	**60**
5.	Social Cultural					
	1. Praying facility ratio	5	5	2	10	10
	2. Sport square facility ratio	4	4	2	8	8
	3. Number of city hall	3	2	1	3	2
	Total Social Cultural Score				**21**	**20**
6.	Social Political					
	1. Election percentage	5	5	3	15	15
	2. Number of mass organization	3	2	2	6	4
	Total Social Political Score				**21**	**19**
7.	Vastness of region					
	1. Overall teritorial area	5	1	2	10	2
	2. Effective teritorial area	5	2	3	15	6
	Total Regional Vastness Score				**25**	**8**
8.	Defence					
	1. Defence personnel ratio	5	2	3	15	6
	2. Teritorial characteristic	1	4	2	2	8

N o	Factors and Indikators	Score		Bob ot	Number	
		Kab.Induk TTS	Amanatun Enlargement		Kab.Induk TTS	Amanatun Enlargement
	Total Defence Score				17	14
9.	Security					
	1. Security personnel ratio	5	2	5	25	10
	Total Security Score				25	10
1 0.	People welfare level					
	1. Human development index	5	5	5	25	25
	Total Welfare Score				25	25
1 1.	Control Range					
	1. Average distance	5	5	2	10	10
	2. Average time	5	5	3	15	15
	Total Control Range Score				25	25
	Total Overall Score				484	403

Source : Analysis result

Score for Amanatun enlargement regarding population factor was 100, score for economic capability factor was 60, score for regional potential factor was 62 and score for financial capability factor was 60. It means that it was eligible to conduct regional autonomy. Furthermore, total score for Main area in South Central Timor Regency is 484 and total score for Amanatun enlargement is 403, it means that appropriateness category for this enlargement is capable and recommended to be pursued.

IV.   CONCLUSION

From the analysis result, conclusion can be made:

1. Trigger of Amanatun enlargement is economic imbalances and vastness of regional area.
2. Objective of Amanatun enlargement is to improve service for citizen, accelerating regional economy development and to improve safety and order.
3. Hypothesis testing result indicate that there is 37,2% relation between trigger of enlargement toward objective of enlargement in Amanatun.
4. Based on PP 78 of 2007, enlargement of Amanatun was capable and recommended to be pursued.

V.   SUGGESTIONS

1. For central government, there was no complementary regulation for UU 23 of 2014 particularly regarding regional enlargement and thus implementation for Amanatun enlargement was still unclear.
2. For regional government, review regarding Amanatun enlargement as capital candidate was not yet geographically reviewed particularly for disaster prone areas and one based on hydrography.
3. For subsequent study, this study has give considerable input for Amanatun enlargement plan and also various aspects regarding not yet reviewed UU 23 of 2014.

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