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**THE STRUCTURAL MODEL FOR EVALUATING THE ROLE OF LOCAL
GOVERNMENT IN CULINARY TOURISM**

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ABSTRACT

This paper aimed to study the effects of local government role in developing culinary tourism sustainability. By choosing Kedonganan Beach, one of two famous culinary destination at Bali – Indonesia, two types of government role namely regulative role and distributive role, were studied. These roles were positioned as exogenous latent variables in causal relationship with local community satisfaction toward the existence of culinary tourism at their village. Community satisfaction is measured thorough its formative constructs, i.e. communities' safety level, emotional level, economic condition, and social condition. The data were collected from 84 community leaders, both formal and informal leader, using tested questionnaires. The results show the government roles did not prove significantly affect culinary tourism sustainability and to its formative construct. However, three out of four constructs show significant effect to community satisfaction where the most influential construct in this relationship is economic condition of community.

KEYWORDS: Culinary tourism, Kedonganan, Structural model, Sustainability.

INTRODUCTION

The effect of tourism development in many aspect had have studied by many researcher. There was many conclusion on it, but in general they found that tourism development have positive impact on economics' aspects, and also have negative impact on sociocultural and also on environment dimension (Aronson, 2000; Sebele, 2010; Aref, 2011). Increasing of job and business opportunity, personal income, and in general, improving the wellness of community where the activities of tourism is growing are the examples of positive impact in economics' aspect. In another hand there are many negative impacts on it, i.e. excessive resource utilization that lead to endangerment of biotic and abiotic environmental sustainability. Beside that it also found, there is a tendency of local people to commercialize their local culture toward the tourist (Untong, 2010).

In general, the effect of tourism development can be classified into four groups, there are (a) economic impact, (b) social and cultural impact, and (c)

environmental impact (Yoon et al., 2001; Untong et al., 2010; Choi & Murray, 2010). In developing countries, the economic benefits are the primary consideration in the tourism development in the region, in the other hand impact of social, cultural, and environmental dimension are the cost must be paid by people in that area (Untong et al., 2010). As long as perceived benefit higher than the cost that must be sacrificed, it means the sustainability of tourism in the region can be expected (Yoon et al., 2001). Based on positive and negative impacts of tourism development in a destination, than study of tourism sustainability become very important. That is the reason for research about it over the last decade very often performed (Sharma & Dyer, 2012).

Bali, one of 34 provinces in Indonesia, is an area that does not have sufficient mineral resources, so that tourism is the leading sector of Bali and drive its economic growth. Bali with its unique tradition and cultural, and also backed up by an international infrastructure, had been attracted many tourist to enjoy

that place. On average, the rate of tourism arrival to Bali in 1994-2000 was 3.0 percent. In 2004-2012 the tourist arrival to Bali was increase, it is 13.7 percent. In 2012 the total of direct visits of foreign tourist as many as 2.8912.019 people, it is about 35.95 percent of total foreign tourist which visiting Indonesia (Bali Tourism Office, 2013). In addition, the added value of tourism sector in Bali's Gross Domestic Product (GDP) is also growing quite rapidly. In 2006-2012, the average rate of grow of tourism sector in Bali Provincial GDP is 14.37 percent per year, with an average contribution of 29.64 percent. In 2012 economic growth in Bali recorded 6.65 percent, while the growth of value added of the tourism sector is almost twice as big as 11.79 percent. In the same year, more than 65 percent of economic activity such as trade sector, hotel and restaurant, transport and communication, finance, leasing, and business service are influenced by tourism activities in Bali (Bali Statistic Office, 2013).

In an attempt to achieve sustainable tourism in Bali, the government roles become very important. The central and local government have a strategic function to frame policies that provide direction to industry and local communities in implementing tourism development in Bali. Those roles can be implemented through the provision of incentive and disincentive for the tourism industries, so that they are motivated to develop their business in the healthy competition's atmosphere. Moreover, the government also has important role in building the infrastructure for the region that support the quality of tourist activities. The role to improve Bali's human resource in tourism development is also the responsibility of local and central government trough preparing the human resource developing program and also by providing the budget.

Based on the background has been described, Kedonganan Beach Tourism that has become one cluster in National Tourism Strategic Destination or "Kawasan Strategis Pariwisata Nasional" (KSPN) in Kuta area and it also the leading culinary site (seafood café) in Bali, will only be sustain if people in that area feel the benefits of the tourism much more than the social cost caused of it. In this case, the roles of government as a regulator and facilitator were needed. For now, research that focus on the role of local government to sustain the tourism development in Bali has not been done in the comprehensive manner. So the aim of this research was conducted with the formulation as follows:

- a. How people in Kedonganan make a perception of the role of local government in the development of culinary tourism in that region?
- b. How the role of local government influence the sustainability of culinary tourism in Kedonganan Beach?

RESEARCH METHOD

Population, Sample, and Research Instrument

The role of local government to develop sustainable culinary tourism assessed by public perception. Therefore, the population of this research are local people in Kedonganan Village-Kuta Bali, which is spread over in six *Banjars* or small part of village. The sample was selected by quota sampling method, with establish 84 people community leaders (formal and non-formal leaders). Every selected leaders give to express their perception of the roles of local government in the sustainability of culinary tourism in the village of Kedonganan as measure by the level of community satisfaction. To measure the perception of local people about the role of local government in developing sustainable culinary tourism at their village, every respondent are given closed statement questionnaires.

The collected data were analyze quantitatively. Pilot test was conducted to 30 respondent to test the validity and reliability of the data. Hair et al. (1995, p.622) stated validity and reliability are 2 components that related to the precision measuring tools. First, reliability is a measure of the internal consistency of indicator in explaining variables. A set of indicators are consider to have an internal consistency when it has a value of Cronbach's Alpha coefficient (α) is greater than or equal to 0.7 (Nunnaly, 1975). If research used exploratory method the value of Cronbach's Alpha coefficient is less than 0.7 but greater than or equal to 0.6 can still be used (Hair et al., 1995, p.641). The second criteria is validity that refers to the ability of an indicator to explain a concept. The item will be valid to be an indicator if it has a correlation coefficient at least 0.3 and have a sign that is equal to the value of the other correlation coefficient (Churchill, 1979).

Data Analysis

To analysis the data of this research, it used two kind of analysis, there are: (a) descriptive analyses which is used to see the description of data collected (b) kuantitatif analyses which is used to see dominant sub-aspect perceived by respondent. Sustainability of culinary tourism be viewed by its economic, socio-cultural, and environmental benefits. Quantitative

analysis was performed by utilizing the SmartPLS program 3.2.3. (Ringle et al., 2005). Conceptually this

study is depicted in Figure 1.

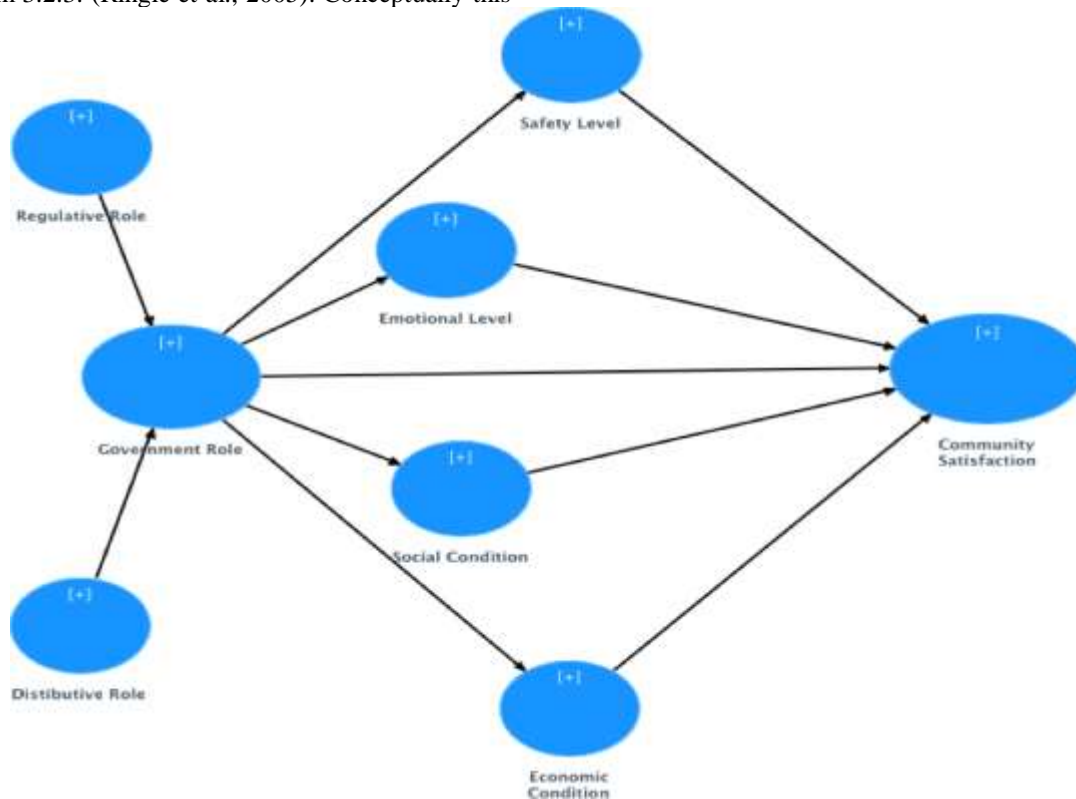


Fig 1. Research Conceptual Model

RESULT AND DISCUSSION

Respondents Description

There are 84 questionnaires were distributed to respondent and it returns as much as 80 pieces, so the response rate is about 95 percent. Examination of the completeness of the answered-item showed three questionnaires is not feasible to analyze because of its completeness. So, the total number of questionnaires for which data can be analyze are 77 pieces, or 91.67 from total questioner administered.

Descriptively, 60 percent of respondents has been completed their high school, even 2 percent of them had graduate degree. Inspecting from their ages, most of respondents' ages (81 percent) are greater than 34 years old. Based-on these characteristics (education level completed and their ages) we concluded that their perception regarding local government roles toward sustainability of culinary tourism at their can be trusted.

Quality of Questionnaires

The instrument used in this research is closed question questioner, and all of items in it were measured using Likert scale with five options. Before analyzing the data, we test the validity of each item

statement, and also the reliability of questionnaire by observing the correlation coefficient and the value of coefficient alpha. Table 1 and Table 2 show the results:

Table 1. Validity and reliability values of indicators for main latent variables

Code	Statements	Corr.	α if item deleted
Indicators for Local Government Roles			
GRole ₁	Effective regulation has been made to protect local business	0.510	0.839
GRole ₂	Effective regulation has been made to minimize unfair business competition	0.680	0.767
GRole ₃	Local government train technical competencies of local people regularly	0.745	0.734
GRole ₄	Local government train managerial competencies of local people regularly	0.677	0.768
Alpha Cranach			0.826
Indicators for Community Satisfaction			
S_EM ₁	People of Kedonganan still	0.383	0.620

	have time for their family		
S_EM ₂	People of Kedonganan can balance their time for society and for making money	0.389	0.618
S_SO ₁	People of Kedonganan satisfied about their social relationship	0.277	0.659
S_SO ₂	People of Kedonganan satisfied regarding the quality of public infrastructure in their village	0.384	0.619
S_SF	People of Kedonganan satisfied regarding their safety level	0.485	0.582
S_EC	People of Kedonganan satisfied regarding their economic condition	0.420	0.607
Alpha Cronbach			0.660

Source: primary data, 2015

Table 1 shows that two main latent variables which is examined, there are only one item out of 10 items has value smaller than 0.30 as threshold value. However, considering if S_SO₁ eliminated as an item can not increase the Alpha Cronbach significantly, then we decided to keep it as a reflective indicator of Community Satisfaction. From those values, we concluded that government roles and community satisfaction as main latent variables in the model had sufficient alpha value and its indicator were valid to reflect both concepts, respectively.

Table 2. Validity and reliability values of indicators for mediatory latent variables

Code	Statements	Corr.	α if item deleted
Indicators for Safety Level			
Y ₁₁	Tourism activities made traffic incidents increase	0.640	0.820
Y ₁₂	Tourism activities made criminal actions increase	0.792	0.663
Y ₁₃	Tourism activities decrease the communities safeness	0.663	0.800
Alpha Cronbach			0.833
Indicators for Emotional Level			
Y ₂₁	Tourism activities reduced spare time of Kedonganan people	0.638	0.559
Y ₂₂	Tourism activities reduced time	0.716	0.456

	allocation for family of Kedonganan people		
Y ₂₃	Tourism activities made the local values and wisdom eroded	<u>0.308</u>	<u>0.852</u>
Alpha Cronbach			0.738
Indicators for Social Condition of Local People			
Y ₃₁	Tourism activities positively affects the harmonized lived of Kedonganan people	<u>0.228</u>	<u>0.754</u>
Y ₃₂	Tourism activities positively affects the quality of social infrastructure	0.569	0.218
Y ₃₃	Tourism activities positively affects the quality of public infrastructure	0.443	0.434
Alpha Cronbach			0.590
Indicators for Economic Condition of Local People			
Y ₄₁	Tourism activities made income of Kedonganan people increase	0.760	0.762
Y ₄₂	Tourism activities made business opportunities increase	0.822	0.743
Y ₄₃	Tourism activities made work opportunities increase	0.688	0.789
Y ₄₄	Tourism activities made local investment increase	0.833	0.750
Y ₄₅	Tourism activities made price of products and services increase	<u>0.308</u>	<u>0.932</u>
Alpha Cronbach			0.831

Source: primary data, 2015

Refers to values in Table 2, we decided to drop item Y₃₁ which its correlational value as much as 0.228 below the threshold value suggested by Churchill (1979). In addition, although items Y₂₃ and Y₄₅ have correlational values as much as 0.308, we also exclude Y₂₃ from reflective-indicator composer of emotional level variable because of significantly increment in latent's reliability (from 0.738 increase to 0.852) if this item removed. For the same reason, we excluded Y₄₅ as a reflective-indicator composer of economic level variable. By eliminating these indicators, final operational model of our research can be illustrated as shown in Figure 2:

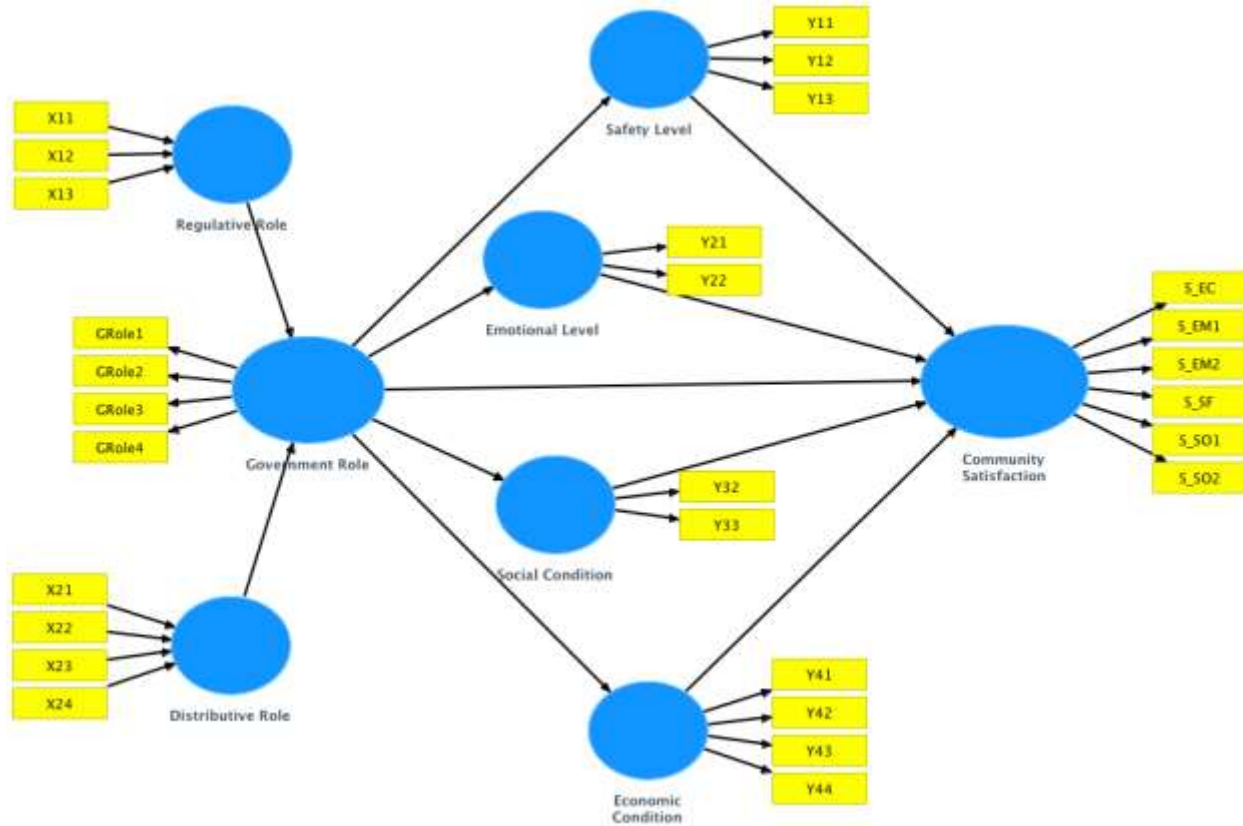


Fig 2. Final Operational Model

In structural equation model (SEM), according to Hox and Bechger [1] and Hair et al. [2], two sub-analyses - outer or measurement model, and inner or structural model - must be conducted. The outer model focuses on relationship occurred between latent and its indicator, while the inner model focuses on causal relationships between latent variables.

Outer Model Analysis

Typically, outer model analysis conducted by observing Cronbach’s alpha for each of latent with reflective indicators and its composite reliability. At the construct level, convergent validity analyzed by examining whether the average variance extracted (AVE) greater than 0.50 or not [3]; and at item level the factor loadings are high (greater than 0.60) [2] or significant [3]. Table 3 shows the factor loadings, p-value, AVE and composite reliability (CR) for all of latent with reflective indicator.

Table 3. Outer model evaluation for main latent with reflective indicator

Latent and its reflective indicator	Loading	p-Value	AVE	CR
Government roles			0.636	0.875
GRole ₁	0.807	0.000		
GRole ₂	0.809	0.000		
GRole ₃	0.810	0.000		

GRole ₄	0.764	0.000		
Community Satisfaction			0.369	0.773
S_EM ₁	0.660	0.012		
S_EM ₂	0.524	0.035		
S_SO ₁	0.462	0.247		
S_SO ₂	0.549	0.011		
S_SF	0.769	0.000		
S_EC	0.630	0.059		

Source: primary data, 2015

Table 4. Outer model evaluation for mediatory latent

Latent and its reflective indicator	Loading	p-Value	AVE	CR
Safety Level			0.747	0.898
Y ₁₁	0.808	0.000		
Y ₁₂	0.896	0.000		
Y ₁₃	0.886	0.000		
Emotional Level			0.871	0.931
Y ₂₁	0.930	0.000		
Y ₂₂	0.936	0.000		
Social Condition			0.788	0.880
Y ₃₂	0.937	0.010		
Y ₃₃	0.812	0.035		
Economic Condition			0.831	0.952
Y ₄₁	0.928	0.000		

Y ₄₂	0.935	0.000		
Y ₄₃	0.873	0.000		
Y ₄₄	0.910	0.000		

Source: primary data, 2015

Table 3 showed S_SO₁ had insignificant loading value. According to Peng and Lai [3], we dropped this item from inner model analysis. The rest of items were significant for 5 percent significance level except item S_EC only significant at 10 percent. However, because of its importance, we decided to keep it as an indicator of Community Satisfaction.

Inner Model Analysis

After outer model analysis was done and item S_SO₁ has been drop as reflective item of Community Satisfaction, we conducted inner model analysis. We conducted this analysis because we believe the outer model has been success to represent the structure of every latent and its indicators. In doing this analysis, we used bootstrapping procedure available in software SmartPLS 3.2.3 [4] and set no sign changes with 200 cases and 500 samples in bootstrap setting. Following is the final estimates after running the bootstrap:

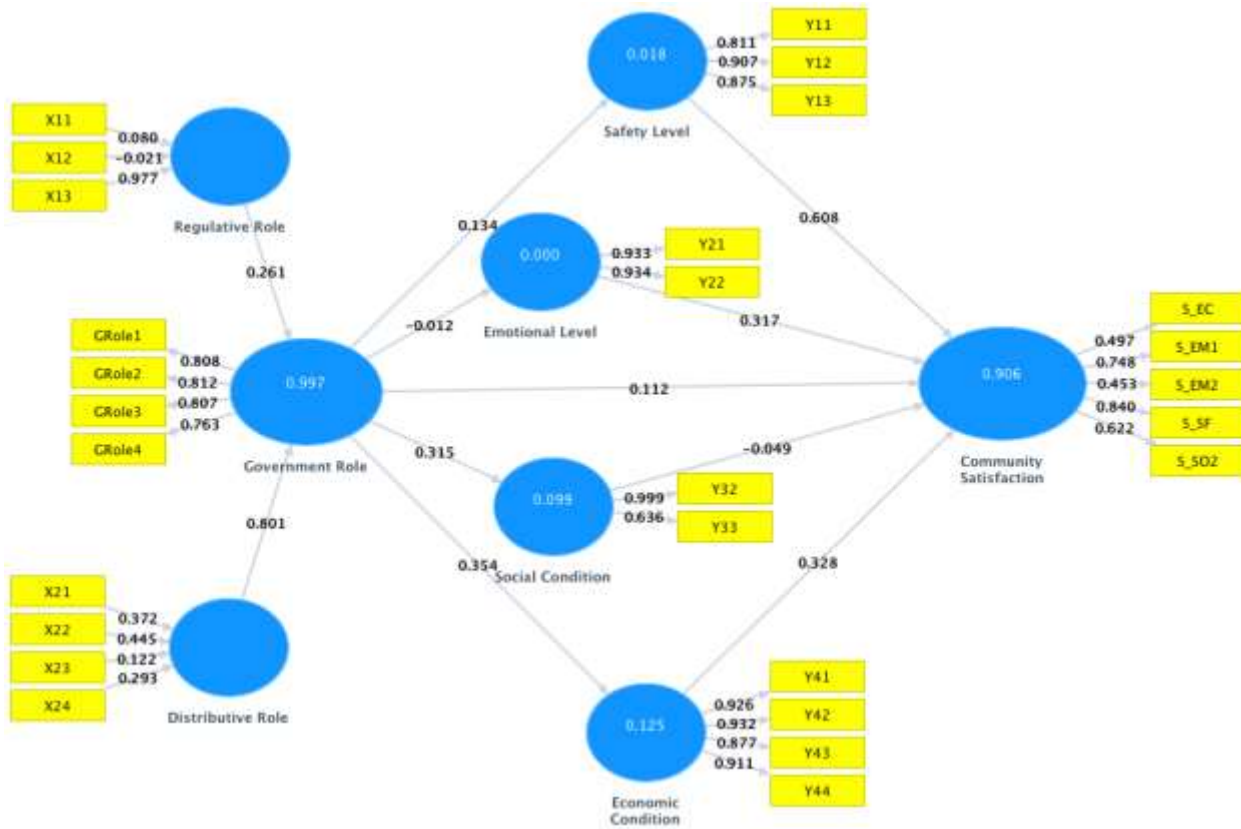


Fig 3. Path Coefficients in the Final Research Model

From final model depicted in Fig. 3, distributive role dominates regulative role in forming government role to sustain culinary tourism at Kedonganan village. Distributive role’s effect as much as 0.801 almost three times the effects from regulative role although both effects are significant at 5 percent level. Acts as exogenous variable, government role only affects significantly economic condition and social condition of Kedonganan people. The path coefficients for these causal relationship are 0.354 and 0.315, respectively.

Meanwhile, community satisfaction variables as an endogenous latent significantly affected only by safety level, emotional level, and economic condition of Kedonganan people with path values are 0.608,

0.317, and 0.328, respectively. We summarized the inner analysis results in Table 5:

Table 5. Direct effects of each causal relationship in the inner model

Exogenous Latent	Endogenous Latent	Path Value	Standard Error	p-Value
Distributive Role	Government Role	0.801	0.042	0.000**
Regulative Role	Government Role	0.261	0.042	0.000**
Government Role	Safety Level	0.134	0.167	0.424 ^{ns}
Government Role	Emotional	0.012	0.184	0.949 ^{ns}

Role	Level			
Government Role	Social Condition	0.315	0.187	0.093 [!]
Government Role	Economic Condition	0.354	0.173	0.042 [*]
Government Role	Community Satisfaction	0.112	0.071	0.116 ^{ns}
Safety Level	Community Satisfaction	0.608	0.121	0.000 ^{**}
Emotional Level	Community Satisfaction	0.317	0.162	0.052 [!]
Social Condition	Community Satisfaction	0.049	0.060	0.414 ^{ns}
Economic Condition	Community Satisfaction	0.328	0.169	0.052 [!]

Source : primary data, 2015

^{ns} : not significant

[!] : significant at 10 percent

^{*} : significant at 5 percent

^{**} : significant at 1 percent

Discussion

It is surprising to know the effect of government roles did not significant regarding local community satisfaction although distributive role and regulative role proved significantly affect the perception of local people toward government role in implementing sustainability of culinary tourism at Kedonganan. This fact inline with our findings when we studied the effects of local government role towards the quality of ecotourism destination at Batur Global Geopark, Kintamani district of Bali. The people of Kintamani also perceived the local government role reflected into distributive and regulative roles could not affect the quality of ecotourism at Kintamani significantly [5].

However, reviewed from community satisfaction perspective, we found the contradiction regarding the factors influence people satisfaction. In this study, we found safety level as the dominant cause in building community satisfaction, followed by emotional level and their economic condition. Meanwhile, for people of Kintamani which less prosperous than people of Kedonganan, they emphasized the economic benefit as the main driver for their participation in building ecotourism sustainability. This contradiction can be explained by using Maslow's hierarchy of needs theory [6]. In his famous article, Maslow stated that physiological need is the most priority of all human. After this need fulfilled, then come into human consideration – according to Maslow – safety need.

CONCLUSION

Tourism development is one of the important economic activities used to promote economic growth

in local communities and to conserve natural resources [7] [8]. To keep culinary tourism at Kedonganan village sustain, local community must benefited from tourism that takes place at their village. Because of it, the government roles become important so that the safety level, emotional level, social condition, and economic condition can satisfied local people. As long as Kedonganan people perceived the benefit arise from tourism activities greater than cost that they must paid, culinary tourism sustainability can be expected.

The local government must be aware that their roles can not affects community satisfaction in a significant way. From this viewpoint, we suggest the government reviews their roles in order to match with community needs. People of Kedonganan tends to prioritize their needs in community safety level.

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REFERENCES

- [1] J. J. Hox and T. M. Bechger, "An Introduction to Structural Equation Modeling," *Family Science Review*, vol. 11, pp. 354-373, 1998.
- [2] Joseph F. Hair, Rolph E. Anderson, Ronald L. Tatham, and William C. Black, *Multivariate Data Analysis with Readings*, 4th ed. New Jersey: Prentice-Hall, Inc., 1995.
- [3] David Xiaosong Peng and Fujun Lai, "Using partial least squares in operations management research: A practical guideline and summary of past research," *Journal of Operation Management*, vol. 30, pp. 467-480, 2012.
- [4] Christian M. Ringle, Sven Wende, and Alexander Will. (2005) *SmartPLS 2.0*. [Online]. <http://www.smartpls.de>
- [5] I Putu Eka N. Kencana and I Wayan Mertha, "People Participation as Social Capital Form for Realizing Sustainable Ecotourism," *International Journal of Social, Management, Economics and Business Engineering*, vol. 8, no. 10, pp. 3014-3020, October 2014.
- [6] A. H. Maslow, "A Theory of Human Motivation," *Psychological Review*, vol. 50, pp. 370-396, 1943.
- [7] Brian Garrod, "Local Participation in the Planning and Management of Ecotourism: A Revised Model Approach," *Journal of Ecotourism*, vol. 2, no. 1, pp. 33-53, 2003.
- [8] Pham Hong Long, "Tourism Impacts and Support

for Tourism Development in Ha Long Bay, Vietnam: An Examination of Resident's Perceptions," *Asian Social Science*, vol. 8, no. 8, pp. 28-39, July 2012.

- [9] Joe F. Hair, Marko Sarstedt, Christian M. Ringle, and Jeannette A. Mena, "An assessment of the use of partial least squares structural equation modeling in marketing research," *Journal of the Academy of Marketing Science*, vol. 40, pp. 414-433, 2012.
- [10] Wynne W. Chin, "The partial least squares approach to structural equation modeling," in *Modern Methods for Business Research*, G. A. Marcoulides, Ed. Mahwah, NJ: Lawrence Erlbaum Associates, 1998, pp. 295-358.
- [11] Michel Tenenhaus, Vincenzo Esposito Vinzi, Yves-Marie Chatelin, and Carlo Lauro, "PLS path modeling," *Computational Statistics & Data Analysis*, vol. 48, pp. 159-205, 2005.
- [12] Gilbert A. Churchill, "A Paradigm for Developing Better Measures of Marketing Constructs," *Journal of Marketing Research*, vol. 16, no. 1, pp. 64-73, February 1979.
- [13] Jim Cavaye, "The Role of Government in Community Capacity Building," Department of Primary Industries, Rockhampton, Research Report 2002.
- [14] Akarapong Untong, Mingsarn Kaosa-Ard, Vicente Ramos, Korawan Sangkakorn, and Javier Rey-Maqueira, "Factors Influencing Local Resident Support for Tourism Development: A Structural Equation Model," in *The APTA Conference*, Macau, China, 2010, pp. 1-21.

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