

## Residents Participation in Management Area Ecotourism

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**Abstract:** The concept tourism development of ecotourism based is believed to have the ability to build more environmentally friendly area. Ecotourism can support environmental conservation and economic opportunities. Community involvement in ecotourism is very important in the implementation of effective management. This study aims to examine and explain the role of the local residents attitude in mediating the effect of environmental knowledge, the benefits of economic, social and cultural benefits to the local resident participation intention. The approach is quantitative research with descriptive research design and causality between variables and methods of the survey. The study population was local residents in 15 villages including Wingkang Ranu Region. The sample of 150 people chosen by purposive sampling method, namely, members of the population who know very well about the condition and development of ecotourism Kintamani area. Data were analyzed with PLS (Partial Least Square). The results showed the local residents attitude a positive effect and significant on the residents participation intention. The local residents attitude into partial mediation in the relationship between environmental knowledge and economic benefits to the local residents participation intentions and to complete mediation in the relationship between social and cultural benefits to the local residents participation intention. Theoretically, the results of this research can enrich and complete repertoire of knowledge in the field of tourism management.

**Key words:** Environmental knowledge, economic benefits, social and culturel benefits, local residents attitude, residents participation intention

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### INTRODUCTION

The competition between tourism businesses in various countries is a reality that can not be denied, although, there are differences in aspects, features and places that exist in each country (Bordas, 1994). Tourism is a strategic activity when viewed from the aspect of economic and socio-cultural development because tourism encourages the creation of employment, increasing people's income, improving the quality of society and can increase the sense of love of the country against the cultural values of the nation as well as an instrument to preserve the environment (Suradnya, 1999; Lim and McAleer, 2001; Henderson, 2002). Tourism is an industry whose survival is determined by both good and bad environments. Without a good environment it is impossible for tourism to flourish. Therefore, the development of tourism should pay attention to the preservation of environmental quality because in the tourism industry, actually sold is the environment.

The tourism development policy associated with environmental management efforts is one of the most important needs for the services of tourists. Development of tourism and environmental management is like two sides of the coin, complementary and can be an attraction and charm for tourists. The development aspect is not solely for the fulfillment of the economic aspect but also needs to give equal weight to the social and environmental aspects. Development must be a grounded development, always in harmony with the balance of nature. Development grounded can be identified with sustainable development and environmentally sound (Yaman and Mohd, 2004).

Damanik and Weber state that the basic idea of sustainable development is conservation of natural and cultural resources. This idea was later downgraded to the concept of sustainable tourism. This means the development of tourism resources that aim to provide optimal benefits for stakeholders and the value of optimal satisfaction for tourists in the long term.

With the increasing awareness of the various parties to the environment and issues of environmentally sound development has contributed to the importance of sustainable tourism principles. Sustainable tourism development can meet the needs of tourists, provide opportunities for economic growth and improve the quality of life of citizens while increasing the opportunities for the future and improving the quality of the environment. Thus, the development of community-based tourism has become an important tool for sustainable tourism management (Andereck, 1995).

Bali as one of the tourist destination is a *prima donna* to bring tourists to Indonesia. The island of Bali has been known and has been visited by many domestic and foreign tourists. This is because of the attractiveness of Bali that has a culture, customs, arts in various types and diverse. Development of tourism area in Bali aimed to improve the economy of society but often less attention to other elements that are also very penting namely socio-cultural and environmental. These three elements are in fact a central element in the development of sustainable tourism.

Vargas-Sanchez *et al.* (2011) stated that ecotourism is the most viable model for sustainable tourism development. Ecotourism is one part of the concept of tourism that focuses on the environment and sustainability. The concept of ecotourism-based tourism development is believed to have the ability to build a more environmentally sound area. Ecotourism development contributes both to environmental and economic conservation.

Kintamani ecotourism area Bangli Regency is one of ecotourism area in Bali province. Kintamani ecotourism area is supported by various cultural attractions, diversitas various types of plants, combined the beauty of natural scenery with clean mountain air. The existence of Kintamani ecotourism area has a natural potential in the form of terrain located at an altitude of 1000-1400 M from sea level which is very fascinating, namely: the panorama of Mount Batur, Mount Abang, Lake Batur, Tebing high, protected forest, forest tourism, fertile, cool air, hot water, strategic sighting place (in Penelokan, Suter, Batur, Kintamani and Pinggan) (<http://www.banglikab.go.id>).

The development of ecotourism as a means of improving the community's welfare and environmental conservation, if it does not pay attention to the participation of local communities in development planning and ecotourism management, this often leads to unsustainable ecotourism in a region (Mansuri and Rao, 2004).

Local community participation in ecotourism planning and implementation is generally seen in

at least two dimensions: community participation in the decision-making process and participation in receiving ecotourism activities benefits. In the decision-making process, communities are encouraged to have control over tourism resources and have initiatives and be able to make decisions that can affect and improve the quality of their lives (Timothy, 1999; Leksakundilok, 2004).

This community-based ecotourism development is the official government policy as implied in the principles of Indonesian tourism formulated by the Ministry of Culture and Tourism which includes the principles of the community as a basic force; tourism, from the people by the people, to the people and tourism is the activity of all levels of society while the government is only a facilitator of tourism activities.

This study analyzes the comprehensive influence of the three main elements in ecotourism development: the influence of environmental knowledge, economic benefits and socio-cultural benefits on the attitudes and intentions of citizens to participate in ecotourism is a novelty of this study. With these three key elements in ecotourism development the influence of environmental knowledge, economic benefits and socio-cultural benefits does have a significant role in the intention of citizen participation mediated by the attitude of citizens in the management of the Kintamani ecotourism area. Given in the process of increasing the intention of citizen participation in ecotourism can not be separated from the influence of environmental knowledge, economic benefits and socio-cultural benefits.

## **Literature and hypothesis study**

**Environmental knowledge directly affects local citizen participation intentions:** Effective citizen participation is a key factor for improving the efficiency of ecotourism management. The results of previous research indicate that environmental knowledge has a positive and significant influence on the intention of citizen participation in ecotourism management (Zhang and Lei, 2012). Environmental knowledge has a positive and significant influence on the intention of citizen participation in watershed management (Jingling *et al.*, 2010). Environmental knowledge has a positive and significant influence on the intention of citizen participation in geopark management (Azman *et al.*, 2010). Based on the exposure, it can be proposed hypothesis 1 as follows:

- $H_1$ : increasing knowledge of the environment will increase the intention of citizen participation in the management of Kintamani ecotourism area

**Economic benefits influence directly on local citizen participation intentions:** According to social exchange theory (Thibaut and Kelley, 1959) that local people are inclined to participate in a change, if they believe they will benefit more from their costs. Theory reasoned action; that individuals are rational, they will use all available information and evaluate the possible implications of their actions before they decide to engage or not particularly in decisions. Social exchange theory and theory reasoned action indicate that citizens tend to encourage (any intentions of participation) development as long as they believe that benefits are expected from development, greater than the cost incurred. Previous balum research was found to link economic benefits and citizen participation intentions. Based on social exchange theory and theory reasoned action can be proposed hypothesis 2 as follows:

- $H_2$ : increasing economic benefits increased the participation of citizens in the management of Kintamani ecotourism area

**The benefits of socio-culture influence directly to citizen's participation intention:** Based on social exchange theory (Thibaut and Kelley, 1959) and theory reasoned action can also hypothesize researchers as follows:

- $H_3$ : the greater the socio-cultural benefits, the more intense the participation of citizens in the management of Kintamani ecotourism area

**Attitudes of local residents influence directly to local citizens participation:** A favorable attitude as a determinant of behavioral intent which further predicts individual behavior. The results of Zhang and Lei (2012) show the attitude of local people to ecotourism have a positive and significant effect on the intention of local citizen participation in ecotourism. Local positive attitudes towards ecotourism, particularly those related to the characteristics and principles of ecotourism management, can then encourage their active involvement in local tourism. Based on the exposure can be proposed hypothesis 4 as follows:

- $H_4$ : the more positive the attitudes of local people, the more intense the participation of local people in the management of Kintamani ecotourism area

**Environmental knowledge mediated by local local's attitudes affect the local citizen's participation intentions:** Environmental knowledge is an important

consequence of promoting positive attitudes toward environmental issues. Some empirical studies show that environmental knowledge positively affects local attitudes (Hsu and Roth, 1996; Bradley *et al.*, 1999; Tikka *et al.*, 2000; Mason and Cheyne, 2000; Aipanjiguly *et al.*, 2003; Lepp and Holland, 2006). The results of Zhang and Lei (2012)'s research show that environmental knowledge has a positive effect on the attitudes of local people as well as local attitudes have a positive effect on the intention of wqarga participation. Based on the empirical study it can be proposed hypotersis 5 as follows:

- $H_5$ : the increased knowledge of the environment mediated by the attitude of local residents, the increased intentions of local participation in the management of Kintamani ecotourism area

**Economic benefits mediated by local attitudes influential on local citizen participation:** Based on previous research conducted by Mason and Cheyne (2000), Ko and Stewart (2002), Yoon *et al.* (2001), Andereck *et al.* (2005), Kuvan and Akan (2005), Nunkoo and Gorsoy (2012), Gursoy and Rutherford (2004), Lindberg and Johnson (1997), Dyer *et al.* (2007), Johnson *et al.* (1994), Jurowski *et al.* (1997) and Tosun (2002) points out that the economic benefits affect the attitudes of local people. Research of Hernandez *et al.* (1996) shows the economic benefits negatively affect the attitudes of local residents in tourism development. According to social exchange theory (Thibaut and Kelley, 1959) and theory reasoned action indicate that local residents tend to encourage participatory development as long as they believe that the expected benefits of development outweigh the costs incurred. Zhang and Lei (2012)'s research shows the attitude of local people to ecotourism have a significant effect on the intention of local participation in ecotourism. Based on empirical and theoretical studies can proposed hypotesis as follows:

- $H_6$ : the increasing economic benefits mediated by local attitudes have increased the intention of local participation in the management of the Kintamani ecotourism area

**Socio-cultural benefits mediated by local local's attitudes against local citizens participation:** Studies show that tourism development brings socio-cultural benefits to local communities. Based on previous research conducted by Yoon *et al.* (2001), Gursoy and Rutherford (2004) and Dyer *et al.* (2007), indicates that socio-cultural benefits positively affect the attitudes of local inhabitants, tourism development. However, research by

Johnson *et al.* (1994), Jurowski *et al.* (1997), Tosun (2002), Besculides *et al.* (2002) Andereck *et al.* (2005), Kuvan and Akan (2005) shows that socio-cultural benefits have a negative and significant against the attitude of local residents. According to social exchange theory (Thibaut and Kelley, 1959) and theory reasoned action indicate that local residents tend to encourage participatory development as long as they believe that the expected benefits of development outweigh the costs incurred. Zhang and Lei (2012)'s research shows the attitude of local people to ecotourism have a significant effect on the intention of local participation in ecotourism. Based on empirical and theoretical studies can be proposed hypostesis 7 as follows:

- H<sub>7</sub>: the increased socio-cultural benefits mediated by local attitudes increased the intention of local participation in the management of the Kintamani ecotourism area

## MATERIALS AND METHODS

**Population and sample:** The population in this study as the unit of analysis are 15 villages that have responsibility for the sustainability of Kintamani ecotourism area. While, the sample in this study with purposive sampling method, meaning that the researchers deliberately select members of the population who know very well about the condition and development of the ecotourism area Kintamani.

Characteristics of respondents aimed to describe the characteristics of the population in the area of ecotourism Kintamani as the sample of this study based on: gender, age, level of last education and type of work. The results of the description of respondent characteristics are presented in Table 1.

**Operational definition of variables:** Environmental knowledge (X1) is a knowledge that local people have about the relationship of living things to their environment and their benefits to human life and strives to preserve the environment for their survival. The environmental knowledge indicator (Zhang and Lie, 2012) was developed in accordance with the conditions at the study site.

Economic benefits (X2) in the form of increased welfare perceived by local people as a positive benefit from the development of ecotourism. Ecotourism development can reduce unemployment by creating

Table 1: Number of sample research

Village/Kelurahan	Total sample
Sukawana village	11
Kintamani village	12
Batur Utara village	9
Batur Tengah village	10
Batur Sealatan village	12
Kedisan village	9
Buahan village	9
Songan A village	12
Songan B village	13
Terunyan village	9
Suter village	9
Abangbatudinding village	10
Abangsongan village	8
Pinggane village	9
Belandingan village	8
Total	150

new job opportunities, bringing in new businesses and creating new investment opportunities, generating additional business for local people and small businesses and generating revenue for local communities and governments. Economic benefits with indicators (Ko and Stewart 2002; Gursay and Rutherford, 2004).

Socio-cultural benefits (X3), namely: the benefits felt by locals to socio-cultural changes resulting from the development of ecotourism and local people are increasingly familiar with their own culture and can also appreciate the culture of others. Socio-cultural benefits with indicators (Swandi, 1999).

Attitude of local people to ecotourism (Y1) which is feeling happy or not happy due to the development of ecotourism. Indicators of local citizen's attitudes toward ecotourism (Zhang and Lei, 2012) were developed in accordance with the conditions at the study sites.

The intention of local citizen participation in ecotourism (Y2), i.e., the desire of local people to participate in ecotourism area management. Local citizen participation in ecotourism management occurs at different levels including taking training, providing input for ecotourism planning and taking part in decision making on the management committee. To assess the intention of participation of local people involved in ecotourism, the indicator (Zhang and Lei, 2012).

**Validity and reliability:** The technique used in testing instrument validity is product moment correlation technique. The correlation coefficient is  $\geq 0.3$  ( $r \geq 0.3$ ), then the instrument is considered valid (Solimun, 2008). The results of the validity test are summarized in Table 2.

A measuring instrument is said to have a high reliability or reliability if it is established in the sense that it is dependability and predictability. The most commonly used method is the Cronbach alpha coefficient. An instrument (overall indicator) is considered to be reasonably reliable when  $\alpha \geq 0.6$  (Malhotra, 2005). The reliability test results are summarized in Table 3.

It can be concluded that all items used measure environmental knowledge variables (X1), economic benefits (X2), socio-cultural benefits (X3), attitudes of local residents (Y1) and citizen participation intentions (Y2) are valid and reliable. Thus, the questionnaire used can be said to be valid and reliable or have an acceptable level of reliability as an instrument for measuring each variable indicator (Kuncoro, 2003) (Table 4).

**Partial Least Square assumption test (PLS):** Before doing further evaluation of Partial Least Square (PLS),

Table 2: Characteristics of respondents research

Characteristics of respondents	Frequency (People)	Percentage
<b>Gender</b>		
Man	108	72
Women	42	28
Total	150	100
<b>Age (years)</b>		
20-29	13	9
30-39	55	36
40-49	72	48
50 years and above	10	7
Total	150	100
<b>Level of education</b>		
SMP	15	10
SMA	112	75
Diploma	5	3
Sarjana S1	18	12
Total	150	100
<b>Type of works</b>		
Government employees	25	17
Private employees	14	9
Craftsmen	4	3
Village devices	18	12
Farmers/Fishermen	57	38
Entrepreneur	32	21
Total	150	100

Table 5: Test result linearity assumption

Relationship between variables	Linearity test results			
	R <sup>2</sup>	F-values	Sig.	Info.
Environmental knowledge (X1)→Attitude of locals (Y1)	0.258	51.475	0.000	Linear
Economic benefits (X2)→Attitude of local citizens (Y1)	0.396	97.117	0.000	Linear
Social and cultural benefits (X3)→Attitude of local citizens (Y1)	0.253	50.198	0.000	Linear
Environmental knowledge (X1)→Participation intentions (Y2)	0.317	68.820	0.000	Linear
Economic benefits (X2)→Participation intentions (Y2)	0.389	94.170	0.000	Linear
Social benefits budaya (X3)→Participation intentions (Y2)	0.233	44.983	0.000	Linear
Attitude of local citizen (Y1)→Participation intention (Y2)	0.502	149.48	0.000	Linear

then first test linearity assumption, namely, that the relationship between latent variables tested has a linear relationship. The linearity test results of the relationship between variables are presented in Table 5.

Based on Table 5 it can be seen that the significance of the relationship between variables is below 5% ( $p < 0.05$ ), so, it can be concluded that the relationship between the variables of environmental knowledge, economic benefits, social cultural benefits, attitudes of local residents and participation intentions local people in ecotourism can be said linear.

Table 3: Results of validity of research instruments

Variables/Indicators	Pearson correlation values	Information
<b>Environmental knowledge (X1)</b>		
X1.1	0.758	Valid
X1.2	0.723	Valid
X1.3	0.870	Valid
<b>Economic benefits (X2)</b>		
X2.1	0.836	Valid
X2.2	0.792	Valid
X2.3	0.762	Valid
X2.4	0.786	Valid
<b>Socio-cultural benefits (X3)</b>		
X3.1	0.628	Valid
X3.2	0.522	Valid
X3.3	0.761	Valid
X3.4	0.619	Valid
<b>Attitude of the locals (Y1)</b>		
Y1.1	0.908	Valid
Y1.2	0.856	Valid
Y1.3	0.820	Valid
Y1.4	0.841	Valid
<b>Local citizens participation intentions (Y2)</b>		
Y2.1	0.678	Valid
Y2.2	0.811	Valid
Y2.3	0.781	Valid

Table 4: Requestion test results of research instruments

Variables	Cronbach alpha	Keterangan
Environmental knowledge (X1)	0.679	Reliabel
Economic benefits (X 2)	0.788	Reliabel
Socio-cultural benefits (X3)	0.681	Reliabel
Attitude of the locals (Y1)	0.660	Reliabel
Local citizens participation intentions (Y2)	0.630	Reliabel

## RESULTS AND DISCUSSION

### Line coefficient testing and direct influence hypothesis:

The direct path effect coefficient test and research hypothesis aims to answer whether the proposed hypothesis is acceptable or rejected. Test results influence between variables are presented on the path diagram (Fig. 1). The results of the test analysis of direct effects between the variables in Fig. 1 can be fully presented in Table 6. Based on the test results in Table 6, the results of direct impact testing can be described as follows.

**The influence of environmental knowledge on the attitudes of local residents:** Result of examination of influence of environmental knowledge to attitude of local citizen can be proved with estimate value of coefficient of path equal to 0.148 with positive direction with value of t-satistic equal to 1.977 bigger than 1.96. The test results prove that environmental knowledge has a positive effect on the attitude of local residents. This means an increase in environmental knowledge direction and real to the improvement of attitudes of local residents.

**The influence of environmental knowledge on the intention of local citizen participation:** The result of testing of the influence of environmental knowledge on local citizen participation intention can be proved by estimate the path coefficient of 0.205 with positive direction. Path coefficient marked positive means that the influence of environmental knowledge on the intention of

local citizen participation is unidirectional. This indicates that there is a direct relationship between environmental knowledge to the intention of local citizen participation. The value of t-statistics generated is  $2.572 > 1.96$ , it can be concluded that the influence of environmental knowledge on the intention of local participation in the management of Kintamani ecotourism area is significant. The results of hypothesis 1 testing proved that the increasing knowledge of the environment, the increased intentions of local participation in the management of Kintamani ecotourism area.

**The effect of economic benefits on the attitudes of local people:** The result of testing the effect of economic benefit to the attitude of local citizen can be proved with estimate value of path coefficient 0.454 with positive direction with t-satistic value equal to 7.954 bigger than 1.96. The test results proved that the economic benefits positively affect the attitude of local residents. This means an increase in the economic benefits in the direction of the local people.

**Effect of economic benefits on the intention of local citizen participation:** The results of testing the effect of economic benefits on the intention of local citizen participation can be proved by estimate the path coefficient of 0.212 with a positive direction. Path coefficient marked positive means that the effect between economic benefits on the attitude of local residents is unidirectional. Then it can also be proved with a critical point value (t-statistics) of  $3.039 > 1.96$ . The results of hypothesis 2 testing proved that the increasing economic benefits will increase the intention of local participation in the management of ecotourism area Kintamani significantly. This means that the increase in economic benefits has a positive and significant impact on the intention of local citizens participation.

**The influence of socio-cultural benefits on the attitudes of local people:** The result of examination of the effect of socio-cultural benefit on the attitude of the local people can be proved with the estimate value of the path coefficient of 0.174 with the positive direction with the t-statistic value of  $2.744 > 1.96$ . The test results prove that the socio-cultural benefits positively affect the

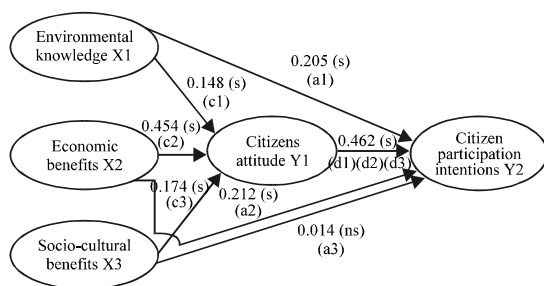


Fig. 1: Full model hypothesis testing path diagram (PLS bootstrapping)

Table 6: Recapitulation of direct securities test result

Relationship between variables	Koef line	t-statistics	Info.
Environmental knowledge (X1)→Attitude of locals (Y1)	0.148	1.977	Sig.
Economic benefits (X2)→Attitude of local citizens (Y1)	0.205	2.572	Sig.
Social and cultural benefits (X3)→Attitude of local citizens (Y1)	0.454	7.954	Sig.
Environmental knowledge (X1)→Participation intentions (Y2)	0.212	3.039	Sig.
Economic benefits (X2)→Participation intentions (Y2)	0.174	2.744	Sig.
Social benefits budya (X3)→Participation intentions (Y2)	0.014	0.244	Non sig.
Attitude of local citizen (Y1)→Participation intention (Y2)	0.462	7.956	Sig.

Table 7: Recapitulation of indirect test results (Mediation variables)

Mediation variables attitude (Y1)	Effect				Character mediation
	(a)	(b)	(c)	(d)	
Environmental knowledge (X1)→Participation intentions (Y)	0.205 (Sig)	0.272 (Sig)	0.148 (Sig)	0.462 (Sig)	Partial mediation
Economic benefits (X2)→Participation intentions (Y2)	0.212 (Sig)	0.424 (Sig)	0.454 (Sig)	0.462 (Sig)	Partial mediation
Social and cultural benefits (X3)→Participation intentions (Y2)	0.014 (NoSig)	0.097 (Sig)	0.174 (Sig)	0.462 (Sig)	Full mediation

Description: Significant (Sig) = t-statistic > 1.96 at position level of  $\alpha$ : 5%

attitudes of local residents. This means an increase in socio-cultural benefits in the direction of the local people.

**The influence of socio-cultural benefits on the intention of local citizen participation:** The results of testing the effect of socio-cultural benefits on the intention of local citizen participation can be proved by estimate the path coefficient of 0.014 with a positive direction. Path coefficient marked positive means that the influence between socio-cultural benefits on the attitudes of local residents is unidirectional. Then it can also be proved with the value of tipping point (t-statistics) of 0.244 value is smaller than 1.96. The test results show there is not enough empirical evidence to accept hypothesis 3 the greater the socio-cultural benefits, the more intense the participation of local people in the management of Kintamani ecotourism area (rejected). This means that the increase of socio-cultural benefits does not affect the increase of local citizen participation intention, this is due to the Kintamani community culture is very unique (interview result with the respondent).

**The influence of attitudes of local residents on the intention of participation of local residents:** The result of testing the influence of local attitude toward local citizen participation intention can be proved by estimate of path coefficient 0.462 with positive direction. Path coefficient marked positive means the influence between attitudes of local residents to attitudes of local residents is unidirectional. Then it can also be proven with the value of tipping point (t-statistic) of 7.956 and the value is > 1.96. The results of hypothesis 4 testing proved that the better the attitude of local residents, the increased intentions of local participation in the management of Kintamani ecotourism area. This means that the attitude of local residents have a positive and significant impact on the intention of participation of local residents.

**Tests of path coefficients and indirect effect hypothesis (Mediation):** Indirect effect test (mediation) aims to detect the position of the intervening variable in the model. Mediation testing is conducted to determine the nature of the relationship between the variables either as a complete mediation variable (mediation mediation), partial mediation (mediation) and not mediation variables.

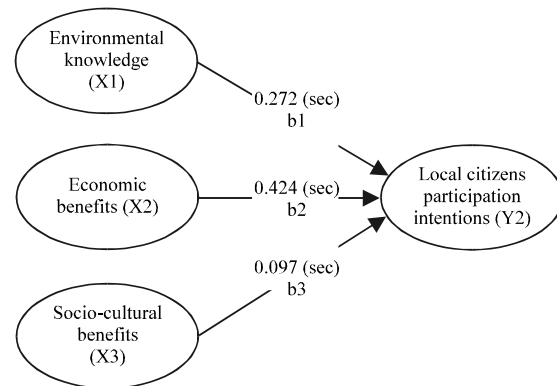


Fig. 2: Diagram of hypothesis without variable mediation

The method of examination of mediation variables of this study with the approach of different coefficient values and significance is done as follows: examine the direct effect of exogenous variables on the endogenous variables in the model by involving the mediation variables; examine the direct influence of exogenous variables on endogens with no involvement of mediation variables; examine the effect of exogenous variables on mediation variables; examine the mediation variable on endogenous variables (Solimun, 2008). The results of hypothesis testing and path coefficient without the mediation variables are presented in Fig. 2.

The analysis results of indirect effect can be presented in Table 7. Based on the test results in Table 7, the result of testing of indirect influence (mediation) can be described as follows.

**The effect of environmental knowledge on the intention of local citizen participation mediated by local citizen attitude:** The result of the evaluation of the test of the influence of the environmental knowledge variable on the intention of local citizen participation in the initial model involving the mediation variables shows that the environmental knowledge directly influences the citizen's attitudes and the variables of citizen participation. Variable attitude of citizen has significant effect to citizen participation intention. To summarize the nature/type of mediation of citizen attitudes, the relationship of environmental knowledge variable to citizen participation

intentions was re-analyzed without involving the mediation variables, the test results as presented in Fig. 2.

Based on Table 7, it can be seen that the value of the path coefficient and the significance of the relationship, it appears that the effects (c1), (d1) and (a1) have a significant relationship but the coefficient (a1) is smaller (down) than the coefficient (b1), the influence of environmental knowledge on the intention of citizen participation through the mediation of the attitude of the local people is partial mediation. These results indicate that environmental knowledge can directly affect the intentions of local citizens participation and also through the attitudes of local people.

The result of the test is sufficient evidence that empirically the environmental knowledge has a significant effect on the intention of citizen participation, mediated by the attitude of the local people. Thus, there is enough empirical evidence to accept hypothesis 5 which states that the increasing knowledge of the environment mediated by the attitude of local residents increases the intention of local participation in the management of Kintamani ecotourism area. This means that knowledge of the environment affects the attitudes of local residents and the intention of the participation of local people. It can be concluded that the increase of environmental knowledge directly has a significant effect in increasing the intention of local citizen participation as well as through mediation attitude of local citizen.

**The effect of economic benefits on the intention of local citizen participation mediated local attitude:** The result of the evaluation of the test of the effect of the economic benefit variables on the intention of local citizen participation in the initial model involving the mediation variables shows that the economic benefits directly influence the attitudes of citizens and the variables of citizen participation. Variable attitude of citizen has significant effect to citizen participation intention. To summarize the nature/type of mediation of citizen attitudes, the relationship of economic benefit variables to citizen participation intentions was re-analyzed without involving the mediation variables, test results as presented in Fig. 1.

Based on Table 7, it can be seen that the value of the path coefficient and the significance of the relationship, it appears that the effects (c2), (d2) and (a2) have a significant relationship but the coefficient (a2) is smaller (down) than the coefficient (b2), the influence of environmental knowledge on the intention of citizen participation through the mediation of the attitude of the local people is partial mediation. These results indicate

that direct economic benefits can affect the intentions of local citizen participation and also through the attitudes of local citizens.

The result of the test is sufficient evidence that empirically the economic benefits have a significant effect on the intention of citizen participation, mediated by the attitude of the local people. Thus, there is sufficient empirical evidence to accept hypothesis 6 which states that the increasing economic benefits mediated by the attitude of local residents increase the intention of local participation in the management of the Kintamani ecotourism area. This means that the real knowledge of economic benefits affects the attitudes of local residents and the intention of local citizens participation. It can be concluded that the increase in direct economic benefits has a significant effect on improving the intentions of local participation as well as through mediation of local attitudes.

**The effect of socio-cultural benefits on local citizen participation intentions mediated local attitude:** The result of the evaluation of the test of the influence of social culture variables on the intention of local citizen participation in the initial model involving the variables of mediation shows that the socio-cultural benefits directly influence the attitudes of the citizens and the variables of citizen participation. Variable attitude of citizen has significant effect to citizen participation intention. To conclude the nature/type of mediation of citizen attitudes, the correlation between socio-cultural benefit variable and citizen participation intentions was re-analyzed without involving mediation variables, test result as presented in Fig. 1.

Based on Table 7, it can be seen that the value of path coefficient and significance of relationship, it appears that effects (c3), (d3) and (a3) have a significant relationship but the coefficient (a3) is smaller (down) than coefficient (b3), so, the mediation the influence of environmental knowledge on the intention of citizen participation through the mediation of the attitude of the local people is partial mediation. These results indicate that socio-cultural benefits can directly affect the intentions of local citizen participation and also, through the attitudes of local people.

The result of the test is sufficient evidence that empirically the socio-cultural benefits have a significant effect on the intention of citizen participation, mediated by the attitude of the local people. Thus, there is sufficient evidence empirically to accept hypothesis 7 which states that the increasing socio-cultural benefits mediated by the attitude of local residents increases the intention of local participation in the management of the Kintamani

ecotourism area. This means that the real knowledge of socio-cultural benefits affects the attitudes of local residents and the intentions of local citizen's participation. It can be concluded that the increase in socio-cultural benefits directly affects significantly in enhancing the intentions of local participation as well as through mediation of local attitudes.

**Research findings:** Provide a basic configuration of modeling development to the relationship of environmental knowledge, economic benefits and socio-cultural benefits to local citizens 'Attitudes and citizens' attitudes toward local citizen participation intentions either directly or mediated by local attitudes. While researchers previously conducted separate test.

Environmental knowledge and economic benefits not only directly affect the intentions of local citizens 'Participation but also the role of mediation of local citizens' attitudes proved to have a significant effect on the intention of local participation. The attitude of the local people as a partial mediation in the relationship of environmental knowledge and economic benefits to the intention of local participation in the management of Kintamani ecotourism area.

Socio-cultural benefits do not directly affect the intentions of local citizen participation but through the attitude of local people can increase the intention of local citizens participation. The attitude of the local people as a complete mediation in the relationship of socio-cultural benefits to the intention of local participation in the management of Kintamani ecotourism area.

The development of the social exchange theory in the findings of this research is evident that local people tend to encourage participatory development as they benefit more from the costs incurred in managing the Kintamani Ecotourism area.

This research adds insight in integrating theory planned behavior and social exchange theory. The results of this study indicate that the attitudes of local residents influence the intention of local citizens participation. The participation intentions of local people will increase with the increasing attitudes of local residents. Furthermore, the intention of local participation will increase if the benefits they receive are increasing.

#### **Contribution of research**

**Theoretical contribution:** The findings in this study contribute to the development of comprehensive modeling of the relationship of environmental knowledge, economic benefits and socio-cultural benefits in an effort to increase the intentions of local citizen's participation both directly and mediated by the attitude of local people

in the management of ecotourism areas. Environmental knowledge, economic benefits and socio-cultural benefits are three aspects that must be considered in the development of ecotourism areas. Because these three variables are an interconnected entity for the achievement of sustainable management of ecotourism areas. The previous researcher in testing the three variables is still separately.

The findings of this study contribute to the development of theory of planned behavior (Theory of planned behavior) is a further development of theory of reasoned action. The attitudes of local residents in this study were found to be partial mediation of the relationship of environmental knowledge and economic benefits to local citizen participation intentions and as a complete mediation variable of socio-cultural benefit relationships to local citizen participation intentions. Attitude of citizens is important to note because it can affect the intention of citizen participation in the management of ecotourism area.

Empirical findings of this study contribute to exploring the role of economic benefits in the management of ecotourism areas either directly or through the mediation of attitudes of local residents have a significant effect on the intention of local participation in the management of Kintamani ecotourism area. The concept of economic benefits associated with the intention of local citizen participation is one of renewal because until now no research has been found to discuss the relationship of these variables.

Empirical findings of this study contribute to exploring the role of socio-cultural benefits through the mediation of attitudes of local residents have a significant effect on the intention of local participation in the management of the Kintamani ecotourism area. The concept of socio-cultural benefits associated with the intention of local citizen participation is one of renewal, because until now no research has been found to discuss the relationship of these variables.

**Practical contributions:** From the empirical findings of this study, environmental knowledge of local people in the Kintamani ecotourism area is good. However, it is still necessary to improve, especially on the environmental management awareness indicator which is the most perceived priority indicator and is important in improving environmental knowledge. The results of this study provide an understanding for the importance of environmental knowledge in the management of Kintamani ecotourism area.

The research results provide knowledge and understanding for Kintamani ecotourism area manager

about the importance of economic benefit in improving attitude and intention of local citizen participation in ecotourism. Taking into account the overall value of the path coefficient, economic benefits contribute greatly to the improvement of attitudes and intentions of local citizens participation. Therefore, the economic benefits, especially, creating new employment opportunities, should be continuously improved as they are the dominant contributors in increasing economic benefits in the management of the Kintamani ecotourism area.

The results provide knowledge and understanding for Kintamani ecotourism area manager about the importance of socio-cultural benefit in improving attitude and intention of local citizen participation in developing ecotourism area. Looking at the overall value of the path coefficient, socio-cultural benefits contribute greatly to the improvement of attitudes and intentions of local citizens participation. Untuk socio-cultural benefits, especially ecotourism indicator is tend to encourage the development of various cultural activities by local residents should continue to be improved because it is an indicator that gives dominant and important contribution in improving socio-cultural benefits in the management of ecotourism area Kintamani.

Area management ecotourism Kintamani in an effort to improve the attitude of local people to ecotourism to be more emphasis on enjoying and appreciating nature. This can increase the sense of care in maintaining the ecotourism area.

The results of this study can help provide understanding and knowledge for Kintamani ecotourism area management and government, especially, Bangli Regency to increase attitude and intention of local citizen participation through environmental knowledge, economic benefit and socio-cultural benefit.

## **CONCLUSION**

Good environmental knowledge of local people is able to reveal the attitude and intentions of local citizens participation. Indicators of local knowledge about the potential of the environment, awareness of environmental management of local communities and understanding ecosystems have an important role in supporting the improvement of environmental knowledge, so as to contribute significantly to the enhancement of attitudes and intentions of local participation in the management of the Kintamani ecotourism area.

Economic benefits received by local residents strongly determine attitudes and intentions of local citizens participation. Indicators create new employment opportunities, create new investment opportunities,

increase business opportunities for local people and generate income for local communities plays an important role in increasing economic benefits, so as to significantly enhance attitudes and intentions of local participation in the management of the Kintamani ecotourism area.

The socio-cultural benefits perceived by local people can improve the attitudes of local people and yet can not significantly increase the intentions of local citizens participation. Ecotourism indicators tend to encourage the development of cultural activities by local communities, resulting in cultural exchanges between tourists and local communities, tends to reinforce the cultural identity of local communities and the arrival of tourists is a valuable experience for local communities to better understand their culture has an important role in increasing social benefits culture received by the community, so, it can make an important contribution in improving the attitude of local people in the management of Kintamani ecotourism area.

Attitude of local residents who are better able to increase the intention of participation of local residents. Indicators of enjoying and appreciating nature, enjoying and appreciating culture, avoiding destruction of local habitats and increasing environmental awareness have an important role to play in enhancing local attitudes, thus, contributing significantly to increasing local participation in the management of the Kintamani ecotourism area.

Improved environmental knowledge of local residents has proven to increase attitudes and intentions of local participation in the management of the Kintamani ecotourism area. Environmental knowledge that is reflected by an indicator of local environmental awareness raising has been shown to directly affect the intentions of local participation as well as through mediation of local attitudes. The nature of the mediation of the influence of environmental knowledge on the intention of the participation of local people through the attitude of the local people is partial mediation. These results indicate that increasing knowledge of the environment is expected to improve attitudes, thereby increasing the intentions of local citizens participation reflected by increasingly frequent meetings and discussions for the development of ecotourism areas.

Increased economic benefits received by local residents proved able to improve attitudes and intentions of local participation in the management of Kintamani ecotourism area. Economic benefits reflected by the indicators create new employment opportunities, proven to directly affect the intentions of local citizen participation as well as through mediation of local attitudes. The mediating nature of the effect of economic

benefits on the intention of local citizen participation through the attitude of the local people is partial mediation. These results indicate that the increased benefits are expected to improve attitudes, thereby increasing the intention of local participation in the management of the Kintamani ecotourism area.

Socio-cultural benefits do not directly affect the intentions of citizen participation but through the attitudes of local people can increase the intention of local citizens participation. Attitude of local residents as a complete mediation in the relationship of socio-cultural benefits to the intention of local participation in the management of Kintamani ecotourism area.

### **LIMITATIONS**

Limitations of theoretical support and the results of previous research in identifying the research objectives on the effect of economic benefits and social benefits on the intention of local citizen participation either directly or through attitude mediation.

### **RECOMMENDATIONS**

This study only uses attitude (attitude toward behavior) as the mediation variable whereas in theory of reasoned action, the individual intention to perform or not perform certain behaviors influenced three basic determinants, namely: attitude), subjective norms and perceived behavioral control. So, for the next researcher in analyzing the influence of environmental knowledge, economic benefit, socio-cultural benefit to the intention of local citizen participation can include subjective norms and perceived behavioral control as mediation variable.

Ecotourism Kintamani area has a very unique characteristics, hence, the possibility of this research result can not be generalized to other ecotourism area.

### **SUGGESTIONS**

Based on the findings and conclusions of this study, it can be suggested that the recommendations of this research are as follows.

Awareness of environmental management of local communities has a dominant contribution in reflecting on environmental knowledge, creating new investment opportunities having a dominant contribution in reflecting economic and economic benefits tending to encourage the development of various social cultural activities by local local people having a dominant contribution to

reflecting socio-cultural benefits. Thus, the management of the Kintamani ecotourism area to focus more attention on those indicators but still improve and improve the perceived indicators by the respondents are still lacking, such as: indicators understand the ecosystem on environmental knowledge, indicator generate income for local residents on economic benefits and indicators of cultural exchange between tourists and locals on socio-cultural benefits.

Enjoying and appreciating culture is the most dominant indicator in reflecting the variable attitudes of local people. Based on respondent's perceptions of enjoying and appreciating nature is also considered the most priority in its implementation. Thus, the management of the ecotourism area of Kintamani focuses more attention on the indicators of enjoying and appreciating the culture but still improve and improve the indicators of enjoying and appreciating the nature of the assessed by the respondents is still lacking.

Joining the training program for ecotourism development is the most dominant indicator in reflecting the variables of local participation intention but according to the respondent's perception it turns out that the indicators attending the discussion meeting for management of ecotourism areas are relatively the most priority or the main in their implementation. This result identifies that joining training programs for ecotourism development has not been well implemented. Therefore, it is suggested to Kintamani ecotourism area manager to increase the participation of local people in joining training program for ecotourism development and also to increase the willingness of local people to help ecotourism area managers because the perception of assessment by respondents is still lacking.

The results of this study indicate that the socio-cultural benefits received by local residents do not significantly affect the intentions of citizen participation. Therefore, it is suggested to Kintamani ecotourism area management to focus its attention on the improvement of various socio-cultural activities.

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