

Social Capital in the Development of Ecotourism: A Case Study in Tambaksari Village Pasuruan Regency, East Java Province, Indonesia

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ABSTRACT

The objective of the study was to analyze the effects of social capital aspects on the development of ecotourism in Tambaksari Village, East Java Province, Indonesia. Five latent variables related to social capital in tourism development, namely, trust, relationship, norm, participation and ecotourism development were analyzed using Structural Equation Modeling (SEM). The results of the study showed that there was a relationship between networking and ecotourism development, but there was no relationship between trust and ecotourism development. There was also no relationship between norms and ecotourism development. This research found that there was a relationship between community participation and ecotourism development. All these results show that social capital is one of the fundamental aspects towards sustainable tourism scenarios in Tambaksari Village.

KEYWORDS: social capital, sustainable tourism, rural development.

INTRODUCTION

In Indonesia, culture and nature are the main sources for tourism attraction. Culture and nature have been discussed intensively to meet sustainable and competitive tourism industry, but the issues of local community participation and involvement in tourism are rarely discussed in scientific literature [1]. Recently, the interest in community participation aspect in tourism industry is growing among Western Countries. According to scholars, local community participation is one of the pillars for sustainable development, especially in tourism sector. Many benefits of community involvement and participation are now well-known. Many studies in tourism development confirm that community involvement and participation are key factors for sustainable tourism industry [2][3][4]. Scholars point out that community participation is a part of social capital [5][2][6]. Social capital covers an important aspect such as trust, networking/information, and norms. Social capital can be defined as a networking and cooperation among local people that are able to facilitate community to find solutions regarding certain problems being faced. Prusak [7] explains that social capital refers to a set of active relationship among human beings. The important aspect encompasses trust, understanding, and norms and behaviour. Such aspect has been identified as a factor to build society in a network and enable cooperation among members of the society. Social relationship and community participation are the social capital which needs to be taken into account in the development of tourism. Social relationship refers to interaction among individuals formally and non-formally, which results in the acceleration of development in certain area.

The concept of social capital in academic research is new but it has been in many fields [8]. Social capital comes from the interaction of many factors, each of which needs social relationship which, in turns, forms the ways the society reacts [9]. In tourism research, however, social capital is a new concept [2][3]. The application of social capital concept in the field of tourism is relatively low [5][2][6][10][11]. According to Zhao et al. [12], social capital is a factor that significantly affects the expansion and results of community participation in the development of local tourism. Jones [2] conducted a study on social capital in the development of ecotourism in Gambia. The results of the study showed that social capital played an important role in the development of ecotourism. According to Kim & Ko [13], the development of ecotourism in rural areas and villages will help to improve the social capital of the local community. If the social capital among the local community is high, then the community really wants to develop tourism and puts effort in networking [5].

Tourism in East Java is facing opportunities and challenges for sustainable tourism development [1]. In such a case, however, the significance of social capital in tourism development is rarely studied. In this study, we explore the role of social capital in the ecotourism development in Tambaksari Village, East Java Indonesia.

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We focus on explored trust, networking, norms, and social relationship as crucial components in ecotourism development in Tambaksari Village.

MATERIALS AND METHODS

Study Location

The study was carried out at Tambaksari Village, Pasuruan Regency, East Java Province, Indonesia. The village is located at the slope of Arjuno Mountain, making ecotourism as the best tourism concept to develop in order to preserve the whole area. The village is divided into four smaller areas (locally called *Dusun*) with their own uniqueness in each area. The first area, namely *Dusun* *Krai*, is famous for its milk production. The second area, namely *Dusun* *Ampelsari*, is famous for its traditional art. The third area, namely *Dusun* *Gunung Malang*, is well-known for its coffee production. The last area, *Dusun* *Tambak Watu*, is well-known for its historical and archaeological sites in slopes of Mt. Arjuno. The uniqueness has made Tambaksari Village rich of ecotourism attraction.

Since 2010, the village has been chosen and developed as an ecotourism object. The development of ecotourism in Tambaksari Village was first initiated by Yayasan Kaliandra, an organization that facilitates the conservation of nature and culture in the conservation of forest around Arjuno Mountain. At the beginning, the ecotourism concept was not responded positively by the local community for their lack of understanding of ecotourism. Another reason for the community to reject ecotourism dealt with their tendency of not trusting outsiders easily. As time went by, some of the villagers had started to give positive responses to the ecotourism activities, marked by the establishment of community organization called "La Dewi Sari". This organization arranges everything dealing with the ecotourism activities in Tambaksari village. However, there remained people who did not care with the ecotourism program. Based on this background, this study aimed at analysing the effects of social capital in the development of ecotourism in Tambaksari village.

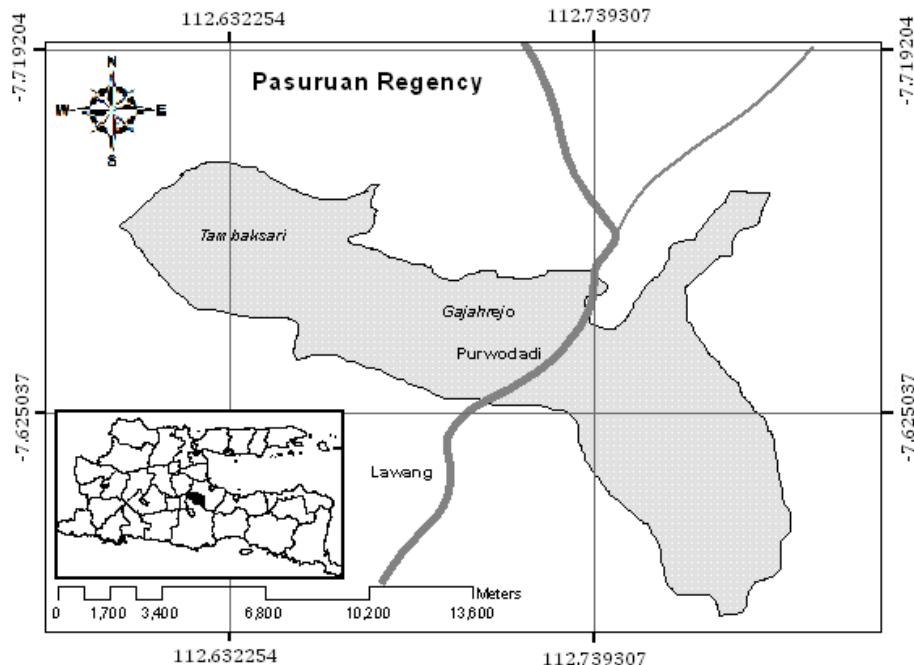


Figure 1 the location of Tambaksari Village, East Java, Indonesia

Research Method

We designed a questionnaire with five latent variables related to social capital in tourism development, namely, networking, trust, norm, participation and ecotourism development. The questionnaire was distributed to 170 respondents in Tambaksari Village. In every latent variable, we developed more-detailed questions related to the main latent variable (Table 1).

Table 1 Detailed latent variable analysis

Variable (codes)	Dimension (codes)
Networking (X.1)	Meeting intensity (X.1.1) Membership (X.1.2) Information among community (X.1.3) Relationship with the government (X.1.4) Relationship with non-government agencies (X.1.5) Information from outside (X.1.6)
Trust (X.2)	Trust among community (X.2.1) Not talking about others (X.2.2) Trust to the government (X.2.3) Trust to non-government organization (X.2.4) Not talking about the government's weaknesses (X.2.5) Not talking about non-government organization weaknesses (X.2.6)
Norms (X.3)	Obedience to rules (X.3.1) Rules not causing problems (X.3.2) Nature preservation (X.3.3) Local wisdom (X.3.4) Protection of springs (X.3.5)
Community Participation (X.4)	Involvement in planning (X.4.1) Involvement in decision-making (X.4.2) Involvement in action/implementation (X.4.3) Involvement in utilization (X.4.4) Involvement in evaluation (X.4.5)
Ecotourism Development (Y.1)	Nature preservation (Y.1.1) Garbage management (Y.1.2) Water usage management (Y.1.3) Eco-friendly design (Y.1.4) Economic benefits (Y.1.5) Saving money for conservation program (Y.1.6) Accommodating studies on ecotourism (Y.1.7) Sustainability of programs (Y.1.8) Conservation education (Y.1.9) Cooperation with local community (Y.1.10) Appreciating and protecting local culture (Y.1.11) Positive contribution for the society (Y.1.12)

The reliability and validity of the variables in this study were tested using Confirmatory Factor analysis [14]. In this study, the number of indicators on all latent variables was 34 which were, then, multiplied by five. Structural equation modelling (SEM) techniques to estimate the models of causal relationship among social capital variables to the ecotourism development was implemented by using AMOS 6.

RESULTS AND DISCUSSION

The Structural Equation Model (SEM) analysis provides direct and indirect relationship (Table 2 and 3). There are two types of direct relationship, namely, asymmetric and symmetric causalities. The asymmetric causalities mean every component of social capital (i.e. network, trust, norm and participation) influences ecotourism directly, but not reversely. In other words, ecotourism development does not affect social capital aspect. In the second relationship, the symmetric causalities imply that there is certain relationship among capital social components. The data and information regarding both causality aspects in the relationship aspect among networking, trust, norm and participation aspect as a social capital component are given in Table 2. These analyses provide a unique relationship to the ecotourism development in Tambaksari Villages.

Table 2 Structural Model from SEM: Direct Relationship

Relationship among Variables	Coefficient	Pvalue	Note
Asymmetric Causalities			
Network → Ecotourism Development	0.547	0.011	Significant
Trust → Ecotourism Development	0.078	0.901	Non-significant
Norms → Ecotourism Development	0.022	0.729	Non-significant
Local Community Participation → Ecotourism Development	0.266	0.029	Significant
Symmetric Causalities			
Network ↔ Trust	0.811	0.000	Significant
Network ↔ Norms	0.750	0.000	Significant
Network ↔ Local Community Participation	0.708	0.000	Significant
Trust ↔ Norms	0.804	0.000	Significant
Trust ↔ Local Community Participation	0.692	0.000	Significant
Norms ↔ Local Community Participation	0.635	0.000	Significant

Table 3 Structural Model from SEM: Indirect Relationships

Indirect Relationship	The Original Direct Relationship Coefficients	Indirect Relationship Coefficients	Note
X1→X2→Y	0.811*	0.078 ^{ns}	0.063
X1→X3→Y	0.750*	0.022 ^{ns}	0.017
X1→X4→Y	0.708*	0.266*	0.188
X2→X1→Y	0.811*	0.547*	0.444
X2→X3→Y	0.804*	0.022 ^{ns}	0.018
X2→X4→Y	0.692*	0.266*	0.184
X3→X1→Y	0.750*	0.547*	0.410
X3→X2→Y	0.804*	0.078 ^{ns}	0.063
X3→X4→Y	0.635*	0.266*	0.169
X4→X1→Y	0.708*	0.547*	0.387
X4→X2→Y	0.692*	0.078 ^{ns}	0.054
X4→X3→Y	0.635*	0.022 ^{ns}	0.014

Note: Symbol * significant at level of significance of 5%, ^m non-significant at level of significance 5%

Simply, the model of relationship among social components tested in this study in the development of ecotourism in the case of Tambaksari Village was presented in Figure 2.

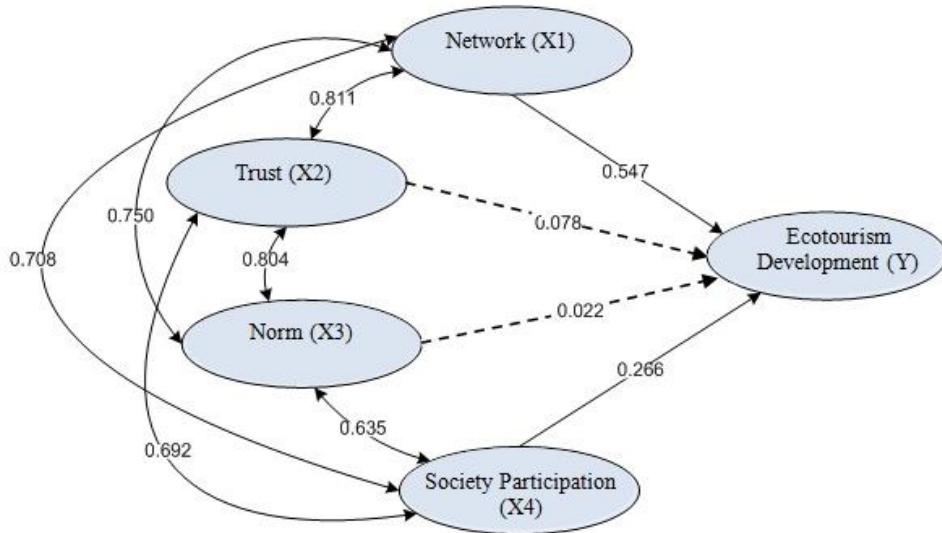


Figure 2 Structural Model from SEM
Note: dot lines represent non-significant relationship

The Effect of Networking (X1) on Ecotourism Development (Y)

Based on the results of the analysis, the relationship coefficient between Networking (X1) and Ecotourism Development (Y) was 0.547 with p -value of 0.011 (Table 2). The p -value < 0.05 means that there is a relationship between Networking (X1) and Ecotourism Development (Y). This indicates that the higher the value of networking (X1), the more the ecotourism would be developed (Y). In Tambaksari Village, continuous communication is held through meetings among the villagers, their membership in the organizations, and exchanging information among them. Through the meetings, information is exchanged and is shared among the people to help make final decisions and actions. Actions and agreements are manifested through the ecotourism management by the local people themselves. Tinsley & Lynch [15] state that the strongest and toughest networking in the community is found at objectives, and will grow weaker when it comes to local, national, and international scale.

The importance of networking, as stated by the respondents, is seen from the relationship between the local community and the non-government organizations. This represents the existence of organizational relationship and binds between the local people of Tambaksari Village and the non-government organizations which, in turns, will strengthen the networking for the success of ecotourism development in that village. In this sense, the non-government organizations (NGOs) voluntarily cooperate with the villagers in the development of ecotourism. Nugroho [4] affirms that NGOs are able to provide and to organize volunteers in empowering local

community. As such, local people have to build good relationship with NGOs as the volunteers in ecotourism development. Sproule [16] states that NGOs can play a role as a source of human resources for technical assistance and a source of funding. Other than the non-government agencies like these, community-based ecotourism should also seek for support from the government. The role of the government in the development of ecotourism is as the decision maker and patron for the local community [4][17]. The government policy in conservation and preservation of nature, natural resources, natural diversity, and cultural identity is the major support for the sustainability of ecotourism. Both the local and the central government can do this [16].

The Effect of Trust (X2) on Ecotourism Development (Y)

Based on the results of the analysis, the relationship coefficient between Trust (X2) and Ecotourism Development (Y) was 0.078 with *p*-value of 0.901 (Table 2). The *p*-value > 0.05 means that there was no relationship between Trust (X2) and Ecotourism Development (Y). This indicates that no matter the level of Trust (X2), it will not affect the Ecotourism Development (Y).

However, when we examine the results of indirect relationship presented in Table 3, several things are revealed. Firstly, there was a significant indirect relationship between Trust (X2) and Ecotourism Development (Y) through Networking (X1). The positive indirect relationship coefficient (0.444) indicated that the more people trusted on each other, the better the networking would be (X1), which would help to improve the development of ecotourism (Y). Secondly, there was a significant indirect relationship between trust (X2) and ecotourism development (Y) through local community participation (X4). The positive indirect relationship coefficient (0.184) indicated that the more people trusted on each other, the better their participation would be (X4), which would help to improve the development of ecotourism (Y). What is implied from these situations is that the higher level of Trust (X2) will help to increase Networking (X1) or Community Participation (X4), which will indirectly help to improve the Development of Ecotourism.

Trust variable did not directly affect ecotourism variable, yet it had to work through networking variable and participation variable. According to Fukuyama [18], the local community can build trust through honesty, cooperation, and obedience to rules and norms. Fukuyama's statement is in line with the results of the study—that trust should be built through cooperation or networking among and participation of the local community themselves. However, people sometimes do not trust each other, and this happened in Tambaksari Village in which the local community did not trust other parties, which became the weakness of ecotourism development. According to Stake in Dalmanik and Weber [19], there are some possible sources of weaknesses in the development of ecotourism. The first is the lack of trust between the local community and the government that will lead into a discrepancy in tourism potential. The government and the local community normally value the potential too much as they do not conduct any feasibility studies. The second is the high level of participation from the local community without the existence of trust among them which may lead into unprofessional ecotourism development. The third is that most of the parties involved in the development of ecotourism tend to see that the development is the responsibility of a single party without the help from others. The situation of not trusting each other among ecotourism stakeholders will threat the sustainability of the program itself. The fourth is that most of the time, when the ecotourism program has run well, the government and the local community merely see it as a part-time job which has no great potential. Disbelief towards ecotourism potential will bore stakeholders, and that will lead into the abandonment of the program in the future. Finally, the government and local community often sees other parties, such as private companies, as a competitor. Lack of trust from the government and local community towards non-government agencies has made many development programs in the field of economy done separately, which finally does not bring good advantages for both the local community and the government. Some of the weaknesses were also found in the ecotourism program in Tambaksari village.

In addition, the human resources in Tambaksari village had not been empowered completely. Many villagers did not understand the whole concept of ecotourism development. Local community participation was limited to representation. The villagers did not believe on the prospect of ecotourism in the future, which could be seen from the low participation of the local community in the development of ecotourism. This situation decelerated the development of ecotourism. Therefore, participation and networking among the local community need to be improved in order to develop trust to support ecotourism development. In other words, the better the trust among the local community, the better the networking and participation of the villagers in the development of ecotourism in Tambaksari village. Fukuyama [18] states that the core of social capital is trust, while Lyon [9] believes that it takes time to build trust.

The Relationship of Norms (X3) and Ecotourism Development (Y)

The relationship coefficient between Norms (X3) and Ecotourism Development (Y) was 0.022 with *p*-value of 0.729 (Table 2). The *p*-value > 0.05 means that there was no relationship between Norms (X3) and Ecotourism Development (Y). This indicates that no matter the level of Norms (X3), it will not affect the Ecotourism Development (Y). However, when we examined the results of indirect relationship presented in

Table 3, several things were revealed. Firstly, there was a significant indirect relationship between norms (X3) and ecotourism development (Y) through networking (X1). The positive indirect relationship coefficient (0.410) indicated that the better the norms, the better the networking would be (X1), which would help to improve the development of ecotourism (Y). Secondly, there was a significant indirect relationship between norms (X3) and ecotourism development (Y) through local community participation (X4). The positive indirect relationship coefficient (0.169) indicated that the better the norms, the more people would get themselves involved in ecotourism (X4), which would help to improve the development of ecotourism (Y). Thus, it can be concluded that there was an indirect relationship between Norms (X3) and Ecotourism Development (Y) through Networking (X1) and Local Community Participation (X4).

Norms variable did not directly affect the development of ecotourism; its effect could be seen indirectly through networking variable or participation variable. Stronger norms of the local people of Tambaksari Village would not make any betterment in the development of ecotourism in that village, and the vice versa. Norms, however, would help to strengthen networking and participation, which indirectly would help to improve the development of ecotourism in Tambaksari village. According to Fukuyama [20], norms are formed spontaneously, tend to be informal, meaning that norms are neither written nor announced. Rules that are called as norms are beliefs upon which the local people of Tambaksari village lean the expectation of the good in their lives. These rules are not written, but have been there in the village since a long time ago. However, formal rules are still indispensable in the development of ecotourism to protect the natural diversity and to minimize the bad effects of ecotourism towards the environment. Such rules may cover rules upon the use of water, waste management, energy conservation, bird hunting, and the protection of old statues in Tambaksari village.

The Relationship of Community Participation (X4) and Ecotourism Development (Y)

Based on the results of the analysis, the relationship coefficient between Community Participation (X4) and Ecotourism Development (Y) was 0.266 with *p*-value of 0.029 (Table 2). The *p*-value < 0.05 indicated that there was a relationship between Community Participation (X4) and Ecotourism Development (Y). This indicates that the higher the value of community participation (X1), the more the ecotourism would be developed (Y). The way community participation affected ecotourism development was manifested through involvement in planning, involvement in decision-making, involvement in action/implementation, involvement in utilization, and involvement in evaluation. This study revealed that the development of ecotourism in Tambaksari village had already involved the local community, as to those who had a home-stay or those who became a tour guide. According to Liu [21], transforming somebody's home into a home-stay facility is a common strategy to increase the income of the local community. Home-stay programs are one of the ways to sustain and maintain the development of community-based tourism.

Koscak [22] states that there are three major keys for the development of ecotourism, one of which is the active participation of the local community. Local people have better sense in finding out what their surrounding needs, which makes local community participation a crucial part in the development of ecotourism. Community participation in planning and decision making dealing with ecotourism is very important. This is in line with the finding of a study by Lorio & Wall [23] which concludes that local community participation is the major key in development process.

From the four variables on social capital, i.e. networking, trust, norms, and participation, it is found out that networking is the most dominant variable which affected the development of ecotourism. This can be seen from the coefficient value of direct relationship between networking and ecotourism development, which is 0.547, and which becomes the highest coefficient value among all. This means that networking is the strongest social capital which directly affects the development of ecotourism in Tambaksari village. Thus, the strength and quality of networking in that village needs to be improved. Local community participation also directly affects the ecotourism development in Tambaksari village, even though its coefficient value is lower than networking coefficient, which is 0.266. This result indicates that local community participation needs to be improved for the success of ecotourism development in Tambaksari village.

CONCLUSION

Social capital plays an important role in ecotourism development. The development of ecotourism was affected by networking and local community participation. This illustrates that improvement on the strength and quality of the networking and local community participation is indispensable for the continuity of ecotourism development. Based on the SEM analysis, networking is found to be the strongest variable affecting the development of ecotourism in Tambaksari Village. Thus, improvement and betterment of networking is very crucial for the development of ecotourism. Norms and trust do not affect the development of ecotourism directly. Trust and norms need networking and participation in order to affect the development of ecotourism.

REFERENCES

1. Hakim, L, and N. Nakagoshi. 2008. Planning for nature-based tourism in East Java: Recent status of biodiversity, conservation, and its implication for sustainable tourism *ASEAN Jour. Tour. Hosp.* 7(2): 155-167
2. Jones, S. 2005. Community-based Ecotourism: The Significance of Social Capital. *Annals of Tourism Research* 32(2): 302-324
3. Okazaki, E. 2008. A community-Based Tourism model: its conception and use. *Journal of Sustainable Tourism*, 16(5): 511-529
4. Nugroho, I. 2011. *Ekowisata dan Pembangunan Berkelaanjutan*. Yogyakarta: Pustaka Pelajar
5. Johannesson, G., Skaptodir, U.D., and Bennediktsson, K. 2003. Coping with Social Capital? The Cultural Economy of Tourism in the North. *Sociologia Ruralis*, 43(1): 3-16
6. Karlsson, S.E. 2005. The Social and The Cultural Capital of a Place and Their Influence on the Production of Tourism: a Theoretical reflection Based on an Illustrative Case Study. *Scandinavian Journal of Hospitality and Tourism*, 5(2): 102-115
7. Prusak, L. 2001. *In Good Company: How Social Capital Makes Organization Works*. Harvard: Harvard Business School Press.
8. Ha, Seong-Kyu. 2010. Housing, Social Capital and Community development in Seoul. *Cities* 27 (2010): 535-542
9. Lyon, F. 2000. Trust, Network and Norms: The Creation of Social Capital in Agricultural Economies in Ghana. *World Development*, 28(4): 663-681
10. Macbeth, J., Carson, D., and Northcote, J. 2004. Social Capital, Tourism and Regional Development: SPCC as A Basis for Innovation and Sustainability. *Current Issues in Tourism*, 7(6): 502-522
11. Nordin, S., and Westlund, H. 2009. Social Capital and The Life Cycle Model: The Transformation of The Destination of Are. *Tourism: An International Interdisciplinary Journal*, 57(3): 259-284
12. Zhao, W., Ritchie, J.R.B., and Echter, C.M. 2011. Social Capital and Tourism Entrepreneurship. *Annals of Tourism Research*, 38(4): 1570-1593
13. Kim, H.G., and Ko, S.T. 2008. Development of Social Capital in Rural Tourism: Perspectives of Community Leaders. *Journal of Tourism and Leisure Research*, 20(2)
14. Ferdinand, A. 2000. *Structural Equation Modeling dalam Penelitian Manajemen*. UNDIP, Semarang.
15. Tinsley R, and Lynch P. 2001. *Small Tourism Business network and destination development*. Department of Business Management, Queen Margaret University Colledge, Edinburgh, UK
16. Sproule, K.W. 1996. *Community-Based Ecotourism Development: Identifying Partners and Process*. Wildlife Preservation Trust International
17. Paulina, M., Dettori, D.G., and Paba, A. 2006. Life cycle of agro touristic firms in Sardinia. *Tourism Management* 27 (2006): 1006-1016
18. Fukuyama, F. 1995. *Trust: Social Virtues and the Creation Of*. Free Press. New York.
19. Damanik, J., and Weber, H.F. 2006. *Perencanaan Ekowisata*. Pusat Studi Pariwisata and ANDI Yogyakarta.
20. Fukuyama, F. 2001. Social Capital, Civil Society, and Development. *Third Word Quarterly*, 22(1):7-200.
21. Liu, A. 2006. Tourism in rural areas: Kedah, Malaysia. *Tourism Management* 27 (2006): 878-889
22. Koscak, M. 1998. *Integral development of rural areas, tourism and village renovation*, Trebnje, Slovenia.
23. Lorio, M., and Wall, G. 2012. *Behind the masks: Tourism and community in Sardinia*. *Tourism Management* 33(6): 1293-1616