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Correlation between Age and Environmental Concern at Tourism Village in Malang, East Java, Indonesia

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Abstract. The high number of tourists visit to Malang shows that Malang is still one of the favourite tourist destinations. Two of them are Kampung Wisata Jodipan and Kampung Biru. The existence of tourism-based villages provides economic, socio-cultural, and ecological impacts. Development and environment have interrelated, reciprocal, and very close interactions. This research was *ex post facto* which aimed to determine the correlation of environmental concern and age, and also to compare the environmental concern in two tourism villages in Malang City. The sampling was conducted using random sampling. Data collection was carried out by observation, interview, and questionnaires about environmental concern questionnaires to residents in both tourism villages. Data were analyzed by descriptive analysis and Pearson correlation. The results showed that the age and concern of the community in Kampung Wisata Jodipan did not correlate, with $p = 0.926 > \alpha = 0.05$, which means there was no relationship between the age of the community and environmental concern. In Kampung Biru, age also does not correlate with community concern with $p = 0.181 > \alpha = 0.05$, which means there is no relationship between the age of the community and environmental concerns.

Keywords: environmental concern, Kampung Biru, Kampung Wisata Jodipan

1. Introduction

The high number of tourists coming to Malang shows that Malang is still one of the favorite tourist destinations [1]. Malang City has the potential to be developed, especially based on local resources [2]. One of tourist destination in Malang City are Kampung Wisata Jodipan and Kampung Biru which located nearby. These two villages were densely populated villages indicated by small village roads and crowded houses. Densely population is a problem that is faced in big cities [3]. Population densities also indicated by small green open areas [4].

Development and the environment have interrelated relationships, reciprocity, and have very close interactions [5]. Social activities in the village affect the quality of the village environment and the quality of life of the community [6]. An area that developed as a tourist place will provide positive benefits for the surrounding residents [7]. Rural tourism is a form of local tourism created, managed and developed by local occupation [8]. Rural tourism can improve the economy of local communities because it can create jobs [9] and can cause changes in the ecological, social and economic conditions of the community [10].



The ecological advantages are the improvement of infrastructure and the protection of landscape locations [11], increasing commercialization and land use [12], increasing amounts of waste due to the effect of increasing number of tourists visiting these tourist sites [13, 14]. On the other hand, tourism can also affect environmental awareness for tourists who come because tourists want tourist-attractions that are worth visiting [15]. The impact is that there is a change in the attitude of residents at tourist sites toward the environment. Lee's research [16] stated that residents in the tourism environment show a positive attitude towards the environment because of the programs carried out by the government to improve environmental quality.

Environmental awareness define based on three dimensions of attitude: effective, cognitive, and conative [17]. Aminrad in his research stated that the higher the level of awareness and knowledge of the environment would have a high environmental awareness [18]. Factors that influence environmental awareness are age, education, income, gender, and location of residence [19, 20]. Socio-economic status also determines environmental concerns [21]. Based on this background, the purpose of this study was to determine differences in environmental concerns based on the age and compare the environmental concern between tourism villages in Malang City.

2. Method

2.1. Research Design

This study used Ex post facto research design with a quantitative approach. The independent variable was the age of the respondents who lived in thematic village tourism in Malang City, Kampung Wisata Jodipan and Kampung Biru. While the dependent variable was environmental concern of the residents in the research location.

2.2. Location and Time

This research conducted in Jodipan, Blimbing District, Malang City, Kampung Wisata Jodipan in RW 02, Jodipan Village. The second location was Kampung Biru in Kiduldalem, Klojen District. Determination of the location of the study done purposively. Location chosen because Kampung Wisata Jodipan and Kampung Biru are the main tourist destinations in Malang City. The study conducted on January-February 2019.

2.3. Sampling

The target population of this study was residents in Kampung Wisata Jodipan and Kampung Biru. The sample selection was 23 residents from Kampung Wisata Jodipan and 25 residents from Kampung Biru. Resident ages spreads from 21 to 60 years old. Sampling done with purposive sampling.

2.4. Instruments and Data Collection

The technique of data collecting done by observation, interviews, and filling in questionnaires. Observations were made to determine the conditions at the study site. The interview conducted with the RT head and RW head in the research area. The interview instrument in the form of interview questions. The questionnaire was filled out by residents in the research location to determine environmental awareness and environmental awareness. The questionnaire instrument for environmental awareness was adapted from Dunlap (2000). The questionnaire instrument used a Likert scale with five alternative answers: strongly disagree with a score of 1, disagree with a score of 2, neutral with a score of 3, agree with a score of 4, and strongly agree with a score of 5.

2.5. Data Analysis

Data analyzed by inferential statistics and descriptive statistics. Inferential analysis to test the research hypothesis. Data from questionnaire filled by residents analyzed by the normality test, Kolmogorov-Smirnov. While the statistical test used for the hypothesis to determine the relationship between the

dependent variable and the independent variable with Pearson correlation analysis. Statistical test to compare the environmental concern between two Kampong using Mann-Whitney test.

3. Result

We also collect demography data from respondent from two villages. The data are gender, age, and academic profile. The demography data of Kampung Wisata Jodipan can be seen on Table 1.

Table 1. Demography Data of Respondents in Kampung Wisata Jodipan

Gender	Total	Age	Total	Academic	Total
				Ungraduated Elementary School	
Female	14	21-28	2		2
Male	9	29-36	4	Elementary School	5
		37-44	3	Junior High School	8
		45-52	7	Senior or Vocational School	7
		53-60	7	Bachelor	1

While demography data of Kampung Biru can be seen on Table 2.

Table 2. Demography Data of Respondents in Kampung Biru

Gender	Total	Age	Total	Academic	Total
Female	23	12-22	2	Elementary School	5
Male	2	23-33	4	Junior High School	7
		34-44	11	Senior or Vocational School	11
		45-55	6	Bachelor	1
		56-66	1	Diploma	1
		67-77	1		

Data obtained from the questionnaire tested normality. The results of the normality and age awareness data in Kampung Wisata Jodipan can be seen in Table 3, while the results of the calculation of the Kampung Biru can be seen in Table 4.

Table 3. Result of Normality Test Kampung Wisata Jodipan

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Age	.155	23	.123	.944	23	.180
Env Concern	.149	23	.200*	.954	23	.355

a. Lilliefors Significance Correction

Based on the result of Normality Test in Table 3, score $p = 0.123 > \alpha 0.05$, so that the age data of the Kampung Wisata Jodipan community is normal, while the environmental concern $p = 0.200 > \alpha 0.05$, so that the data on Kampung Wisata Jodipan environmental concern was normal. The next test used Spearman correlation.

Table 4. Result of Normality Test Kampung Biru

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Age	.118	25	.200*	.980	25	.882
Env Concern	.174	25	.049	.865	25	.003

a. Lilliefors Significance Correction

*. This is a lower bound of the true significance.

According to the result of normality test in Table 4, $p_{\text{age}} = 0.200 > \alpha 0.05$, so that the age data of the Kampung Biru community was normal, while $p_{\text{environmental concern}} = 0.049 > \alpha 0.05$, so that the data on environmental concern of the Kampung Biru community was normal. Because the data normally distributed, the next test used Pearson Correlation. The results of the correlation test between age and environmental awareness in Kampung Wisata Jodipan can be seen in Table 5. While the results of the correlation test in Kampung Biru can be seen in Table 6.

Table 5. Results of calculation of Pearson correlation in Kampung Wisata Jodipan

		AGE	CONERN
AGE	Pearson Correlation	1	-.019
	Sig. (2-tailed)		.926
	N	25	25
CONCERN	Pearson Correlation	-.019	1
	Sig. (2-tailed)	.926	
	N	25	25

The results show that the age and environmental concern in Kampung Wisata Jodipan are normally distributed with a significance value $p = 0.926 > \alpha = 0.05$, which means there is no relationship between the age of the community and environmental concerns. The calculation results can be seen in Table 5.

Table 6. Results of calculation of Kampung Biru Pearson correlation statistics

		AGE	CONERN
AGE	Correlation Coefficient	1.000	.276
	Sig. (2-tailed)	.	.181
	N	25	25
CONERN	Correlation Coefficient	.276	1.000
	Sig. (2-tailed)	.181	.
	N	25	25

While in Kampung Biru, age data is normally distributed and the community's concern is abnormal with a significance value of $p = 0.181 > \alpha = 0.05$, which means there is no relationship between the age of the community and environmental concerns. The calculation results can be seen in Table 6. A comparison test of the level of environmental awareness between the two villages can be seen in Table 7.

Table 7. Result of Mann-Whitney U test

	Env Concern
Mann-Whitney U	224.500
Wilcoxon W	500.500
Z	-1.304
Asymp. Sig. (2-tailed)	.192

Based on the results of the Mann-Whitney test in Tabel 7, it is known that $p = 0.192 > \alpha 0.05$, so that there is no difference in environmental concern in Kampung Wisata Jodipan and Kampung Biru.

4. Discussion

Kampung Wisata Jodipan and Kampung Biru are tourism icons in Malang City. Many domestic and foreign tourists visited Kampung Wisata Jodipan (KWJ). Based on the results from interviews with some residents, it was known that many tourists came on weekends or holidays. The change in Kampung Wisata Jodipan became a tourist village has provided change, both in social, economic and ecological aspects. The results of other empirical studies show that tourism has a significant positive effect on environmental pollution in Malaysia, Thailand and Singapore. Sustainable economic growth will be followed because government policies regarding environmental responsibility in the tourism industry [22].

The large number of tourists who come encourage people to open businesses to sell food and beverages. So that it can improve the economy of residents in tourist villages. The resident's economy also increased because tourists who entered the location paid an entrance ticket of Rp3000.00. The contribution is managed by KWJ management which is used for residents' needs such as the provision of basic necessities every 6 months, funds for death and sick resident. Residents also do not need to provide other additional costs that are usually charged. The reciprocity of this is that KWJ management and the decision of the community agreed to maintain a cleaner environment. This aim of this rule to improve the image and tourists who come to feel comfortable at the tourist site. Residents are asked to dispose of garbage in the area provided and are not allowed to dispose of garbage in the river that flows between KWJ and Tridi Village.

Elements related to the scope of tourism are the existence of public areas and environmental conditions that attract tourists [23]. Therefore, members of the community are committed to safeguarding their environment so that it remains an attraction for tourists. This method can be said to be successful because one of the way to give an example of the relationship between the community and the environment in which they live [24].

Based on the results of field observations, it is known that the conditions in KWJ are quite clean, it can be seen from the absence of garbage scattered below. Each house has its own rubbish bin so that residents do not throw garbage into the river. Tourism activities can affect several biological aspects of the environment, namely diversity, plants, land, and water. Therefore, there is a need for related regulations regarding this matter [25].

The age of the people who were used as respondents in Jodipan and Kampung Biru were mostly between 34-55 years old, namely the adult group. Kampung Biru is a densely populated village, which can be seen from the location of residents' houses that are close to each other and small roads. In contrast to Kampung Wisata Jodipan which protects the environment because for tourist destinations, Kampung Biru already has a routine agenda related to environmental awareness activities. Based on the results of interviews with one of the residents it is known that in Kampung Biru there are several programs such as planting toga plants, making vertical gardens, more organized disposal of household waste, and other activities carried out to protect the environment without any special rewards. Kampung Biru residents

have more interest in maintaining cleanliness and environmental sustainability even though the tourism sector does not have a real impact on the lives of residents in Kampung Biru.

If viewed from an economic perspective, residents in Kampung Biru do not rely too much on the village tourism sector as their main income, but they have other jobs such as traders in the market, drivers and laborers. This is in accordance with research that states that the level of the economy influences environmental [26]. A person's caring attitude can occur if someone feels responsible due to the damage [27].

In the research conducted on two tourist villages, there was no correlation between age and environmental concern. This can be caused by several things. Environmental concern also influenced by other socio-demographic factors. Socio-demographic characteristics have a relationship with one's environmental concern. High economic levels and higher education levels have a positive correlation with environmental awareness. Age also has a positive reaction to environmental care. The older generation has more concern than the younger generation. Women in Shanghai care less about the environment than men [26].

Women have more environmental concerns, this is indicated by pro-environment behaviour such as recycling and buying organic products [28]. Regarding age, the older a person is, the more concerned about the environment [26], but other studies show that young age groups are more concerned about the environment [29]. Groups with higher education have higher environmental concerns [30]. The relationship between income and environmental care gets mixed results. There is a group that states income has a negative relationship to environmental awareness [29]. While other groups showed a positive relationship [31]. Whereas in the research conducted, the average age of respondents is 30-40 years old.

Based on the results of calculations, it is known that age does not correlate with environmental concern. This can occur because lacking number of samples, and the age distribution of citizens is less diverse so that it cannot be used as an interpretation in data collection. Based on the result, it is known that there is no difference of environmental concern in both kampung. If this is ruled out, residents who live in both rural and urban areas have high environmental concerns [32].

5. Conclusion

There is no correlation between age and environmental concerns in tourist villages in Malang City. Also, there is no difference level of environmental concern of both tourism villages.

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