



## Investigating the Village-based Tourism Economic Impact

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### Abstract

Many studies have been documented that tourism economic impact is a determinant of community support toward tourism development. However, there is a lack of study investigating tourism economic impact on village-based tourism. This study investigates the relative important index of the item offered by previous literature. Besides, this study also examines different means from different respondents: gender, education, and age. Forty-seven respondents have participated in this study. The validity and reliability test is run before the items are ranked using the Relative Important Index (RII). Mann-Whitney U test has applied any difference of means value between woman and man. Moreover, the Kruskal-Wallis test is employed to determine any difference of means value among different levels of respondent education. The result shows that all items are valid and reliable. This study concludes that the first rank is item 1 (village-based tourism increased job opportunities for village communities) with a relative important index of 0.898. Besides, six items have no mean value difference between man and woman, except for item 5 (village-based tourism given economic benefit to village people). Its asym significance of Mann-Whitney U asym significance is lesser than 0.05. Further, respondent education and age category also have no difference in mean value using the Kruskal Wallis test. This study implies that the tourism economics impact for village-based tourism can be used for further studies.

**Keywords:** Village-based Tourism, Tourism Economic Impact, Indonesia.

### 1. Introduction

An effective way to regenerate the economy of a tourism destination (including village-based tourism) is tourism development (Chen & Chen, 2010). Community tourism support toward tourism development is considered a vital facet to developing the tourism destination, especially for the sustainability of a destination (Yoon, Gursoy, & Chen, 2001). (Sofield & Lia, 2011) argue that tourism governance is a necessity to gain tourism sustainability. In addition, an understanding of factors determining community support is crucial for reaching it (Perdue, Long, & Allen, 1990). Community's involvement in planning and development stages is also a fundamental requirement for tourism development sustainability (Sharma & Dyer, 2009). Several studies are investigating the determinant of community support toward tourism development (Boley, Strzelecka, & Watson, 2018; Chen & Chen, 2010; Gursoy, Jurowski, & Uysal, 2002; Gursoy & Rutherford, 2004; Jurowski, Uysal, & Williams, 1997; Ko & Stewart, 2002; Lee, 2013; Lindberg & Johnson, 1997; Rasoolimanesh, Ringle, Jaafar, & Ramayah, 2017; Sharma & Dyer, 2009; Sinclair-Maragh, 2017; Wongso, Zaitul, Ilona, & Anief, 2019; Yoon et al., 2001; Zuo, Gusoy, & Wall, 2017). Most studies investigate the determinants from

environmental, social culture and economic perspectives. Besides, the studies were based on the social exchange theory (Emerson, 1976). Besides, the previous studies using village-based tourism development are limited. Therefore, It needs to study investigating the village-based tourism impact.

This study aims to explore how village-based tourism impact the community perspective. Accurately, this study to describe the tourism impact in term of economic. The economic impact could be in the form of (i) additional income, (ii) increased jobs, (iii) tax revenue, (iv) promoting the local product, (v) raised the level of life, and (vi) given economic benefit to people and small business (Chen & Chen, 2010; Ko & Stewart, 2002). Village-based tourism will impact additional income for the community. The tourist who comes to a tourism destination will demand products and services, such as restaurants, hotels, etc. Due to the high demand for products and services in a tourism destination. An economic institution that offers them will hire more people to work in their business. Besides, the company also contributes to the government in terms of revenue tax because of increased business revenue due to high demand from tourists for products and services, because of the high demand for products and services. The tourism

destination can promote the local product. Furthermore, it finally gives economic benefit to people and small businesses.

## 2. Method

The village community in Pariaman city is the research object. There are forty-seven participants in this study. Data is collected through a survey using questioners. Tourism economic impact consists of six items (positive economic impact) which were developed by (Ko & Stewart, 2002) and used by (Chen & Chen, 2010). Five-Likert scale (Likert, 1931) is used to measure the tourism economic impact ranging from very disagree (1) to very agree (5). The instrument is validated using the loading factor (Bartlett, 1950; Kaiser, 1970) and tested for reliability by applying the Cronbach alpha (Cronbach, 1951). The reliability of a measure indicates its consistency and stability, which assists in evaluating the goodness of a measure (Sekaran, 2013). Item ranking used RII (important relative index), which can be accounted for using the following formula:  $RII (\text{Important Relative Index}) = \frac{\sum w/AxN}{N}$ . W is a weight given to each attribute by the respondent. Meanwhile, A is the highest weight, and N is the total number of respondents. To see any difference in mean value between woman and man, apply the Mann-Whitney U test (Field, 2009) and the difference between education and age. Furthermore, Kruskal-Wallis test is used (Pallant, 2007).

## 3. Result and discussion

The final sample of this study is forty-seven respondents. In addition, thirteen respondents are male (27.7%). Moreover, the rest is female (72.3%). This figure represented the population in Pariaman city. Another demographic data is education. This study classifies education into four categories: high school, Diploma, Bachelor and Master level. Figure 1 indicates the percentage of each education level. First, the number of respondents who graduated from high school is five respondents (10.60%). The respondent who graduated with a diploma is about four respondents (8.51%). Besides, Bachelor's graduation is about thirty-five respondents (74.50%). Finally, three respondents were graduated from the master program (6.4%). The third demographic data is respondent age. The majority of the respondent is the age between 41 to 50 years old (38.30%). It is followed by the age of 31 to 40 years old (27.66%). Further, ten respondents are between the age of 19 to 30 years old. The rest is in the age greater than 50 years old. The percentage of respondent's age range could be seen in Figure 1 below.

A test for validity, reliability, important relative index (RII) is shown in Figure 1. Furthermore, the ranking of village-based tourism economic impact is demonstrated in Tabel 1. The validity test of the instrument employs the Kaiser-Meyer-Olkin (KMO) and loading factor. Further. The KMO measure of

sampling adequacy for the data set is 0.779 (rounding to 0.8). The value between 0.8 and 0.9 are depicted as meritorious by (Kaiser 1970). Further. Eugene value is 3.435. Moreover, it is far greater than 1. Also, six items account for 57.25% of the total variance. All items have a loading factor exceed 0.500.

Meanwhile, the reliability test also shows a high value (0.833), which indicate that the instrument is reliable (Nunnally, 1978). The important relative index demonstrates that the RII of item 1 (increased job opportunities for the community) is the highest. And it is the first rank. The second relative important is item 3 (useful for promoting village products). The fifth item is the third rank with an RII of 0.872 (given economic benefits to village people). Tourism economic impact in raising the level of life for village residents is the fourth rank with RII of 0.868. item 2 and 6 are the fifth rank with an RII of 0.855.

**Tabel 1.**

**Test Result of Validity, Reliability, RII and Ranking of Village-Based Tourism Economic Impact**

Variable	KMO	EV	% of var.	LF	CA	RII	Rank
Village based tourism has increased job opportunities for community (TE1)	0.78	3.44	57.25	0.85	0.83	4.49	1
Village based tourism has created more tax revenue for the local government (TE2)				0.64		4.28	5
Village based tourism is useful for promoting village products (TE3)				0.82		4.45	2
Village based tourism has raised the level of life for village residents (TE4)				0.63		4.34	4
Village based tourism has given economic benefits to village people (TE5)				0.72		4.36	3
Village based tourism has given economic benefits to small businesses (TE6)				0.84		4.28	5

Note. KMO (Kaiser-Meyer-Olsen), EV (Eugene value), Var (variance), LF (Loading factor), CA (Cronbach alpha), RII (relative important index)

Source: Data Processed by Authors, 2021

The agreement between demographic data is essential to be gained to have the right instruments. Therefore, this study investigates the village-based tourism economic impact according to gender and education variations. To assess the agreement among samples, we have to test for normality. If the data is normal, the parametric statistic would be employed to agreement among samples, otherwise the non parametric statistic will be used. the result of the Klomogorov-Smirnov test show that all variables are not normal because of the KS asym sig lesser than 0.05. Therefore, it require non-parametric statistic test for further analysis. Mann-Whitney U is applied to analyze the agreement between two samples, such as male and

female. Further, Kruskal-Wallis test is utilized for more than two independent sample (K), such as education and age.

**Table 2. Normality Test Result**

variable	KS Asym sig	cut off value	conclusion
TIE1	0.00	0.05	not normal
TIE2	0.00	0.05	not normal
TIE3	0.00	0.05	not normal
TIE4	0.00	0.05	not normal
TIE5	0.00	0.05	not normal
TIE6	0.00	0.05	not normal

Source: Data Processed by Authors, 2021

Mann-Whitney U is used to determine the difference in the sample means of two different groups of the respondent (woman and man) ranking the identified factors. At the same time. The Kruskal-Wallis test is applied to see any differences between the two related sample mean at different education (high school, diploma, bachelor, and master level). To evaluate the magnitude of consent among respondents. Kendall's coefficient of concordance (W) is used. The relative strength of magnitude could be specified using Kendall's W. The value of 0 reflects a lack of agreement among respondents. Whereas 1 indicates perfect agreement. Table 3 shows the result of Mann-Whitney and Kendall's W test for gender differences. As shown in Table 3, only variable 5 (given economic benefit to village people) is the significant difference among men and women (Asym. Sig < 0.05). At the same time, other items have no differences between men and women (Asym. Sig > 0.05). However, Kendall's W value is deficient. It indicates that there is low agreement among respondents. However, the value of Kendall's W increases when it analyses separately: 0.086 for women and 0.11 for men, respectively. Kendall's W value for man is higher compare to the woman. In other words, it means the respondent more agrees with the instruments.

**Table 3. Group Difference Tests Using The Mann-Whitney U Test For Gender**

Variable	all sample		woman		man		Mann Whitney U Asym. Sig.
	mean	rank	mean	rank	mean	rank	
TEI1	4.49	1	4.50	1	4.46	1	0.87
TEI2	4.28	5	4.21	5	4.46	1	0.29
TEI3	4.45	2	4.47	2	4.39	2	0.72
TEI4	4.34	4	4.35	4	4.38	3	0.67
TEI5	4.36	3	4.50	1	4.00	4	0.03
TEI6	4.28	5	4.24	3	4.38	2	0.66
n	47		34		13		
Crobanch alpha	0.83		0.85		0.81		
Kendall's W	0.03		0.09		0.11		
Chi-square	7.95		14.59		6.96		
Asym. Sig.	0.16		0.01		0.22		

Note: \*\* significant at 0.05

Source: Data Processed by Authors, 2021

Table 4 shows the result of the group difference test using Kruskal-Wallis for education. Based on the Kruskal-Wallis test. It shows that all

items have no difference among education variations due to asymptotic significance is higher than 0.05. Therefore, it can be concluded that there is a consensus among respondents with different levels of education. Kendall's coefficient of concordance (W) was also run for education differences. The highest of Kendall's W value is the respondent with master graduation (0.44). Therefore, the consensus about village-based tourism economic impact is higher than the respondent with other education levels. Surprisingly, respondent with bachelor education is the lowest of Kendall's W value. It indicates that there is low agreement among respondents with bachelor education level. However, the effect of education level is not significant due to the higher value of Asym significant (above 0.05 or 5%).

**Table 4. Group Difference Test Using Kruskal-Wallis for Education**

Variabel	senior high school		diploma		bachelor		master		Kruskal Wallis Test Asym. Sig.
	mean	rank	mean	rank	mean	rank	mean	rank	
TEI1	4.00	2	4.50	2	4.54	1	4.56	2	0.57
TEI2	3.20	4	4.75	1	4.37	5	4.33	3	0.20
TEI3	4.20	1	4.25	3	4.49	3	4.67	1	0.64
TEI4	3.80	3	4.25	3	4.43	4	4.33	3	0.29
TEI5	3.80	3	4.25	3	4.49	2	4.00	4	0.39
TEI6	3.60	4	4.25	3	4.37	5	4.33	3	0.38
n	5		4		35		3		
Crobanch alpha	0.55		0.93		0.87		0.86		
Kendall's W	0.10		0.40		0.03		0.44		
Chi-square	2.52		8.01		5.59		6.54		
Asym. Sig.	0.77		0.15		0.32		0.26		

Source: Data Processed by Authors, 2021

The group difference test using Kruskal-Wallis for age is shown in Table 5. There are four categories of age: (i) 19-30 years old, (ii) 31-40 years old, (iii) 41-50 years old, and (iv) above 50 years old. Each village-based tourism economic impact has asym sig of Kruskal Wallis test greater than 0.05. It means that respondents with each different age have agreed about village-based tourism economic impact. The Kendall's W values of all samples are 0.03 (sym. Sig= 0.16), and there is no significant consensus among all samples. The chi-square value for respondents aged 19-30 years and above 50 years is 2.88 and 16.18, respectively, both statistically significant. Thus, it can conclude that there is significant agreement among that group. Whereas respondents aged 31-40 years and 41-50 years old have asym sig greater than 5%, there is no significant consensus among those ages.

**Table 5. Group difference test using Kruskal-Wallis for Age**

Variabels	19 to 30 years		31 to 40 years		41 to 50 years		above 50 years		Mann Whitney U Asym. Sig.
	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	
TEI1	4.50	2	4.54	2	4.37	3	4.71	1	0.64
TEI2	4.30	4	4.63	1	4.06	6	4.29	4	0.13
TEI3	4.50	3	4.38	4	4.44	1	4.42	3	0.95
TEI4	4.30	5	4.38	5	4.44	2	4.14	5	0.82
TEI5	4.60	1	4.31	6	4.19	5	4.71	2	0.39
TEI6	4.30	6	4.46	3	4.25	4	3.86	6	0.20
n	10		13		16		8		
Crobanch alpha	0.85		0.88		0.85		0.82		
Kendall's W	0.06		0.06		0.08		0.46		
Chi-square	2.88		3.72		6.49		16.18		
Asym. Sig.	0.00		0.52		0.26		0.00		

Source: Data Processed by Authors, 2021

#### 4. Conclusion

Tourism economic impact is an essential factor affecting resident attitude or support toward tourism development. Studies on tourism economic impact are largely done. However, it is limited for village-based tourism. This study concludes that village-based tourism can: (i) increase job opportunities for communities, (ii) created more tax revenue for local government, (iii) be useful for promoting village products, (vi) raised the level of life for village residents, and (v) given economic benefit to small businesses. These five items have gained consensus from different gender and education. This finding can be used to investigate the impact of tourism economic impact on community attitude or support toward village-based tourism development. This finding implies that village-based tourism stakeholders can consider this economic impact when developing the village tourism destination. In addition, the destination should provide job opportunities for the community, ta revenue for the village government, promoting village products, increase the level of life for village residents, support the village small business. Theoretically, this research contributes to economic exchange theory because economic development would gain support from the community if it can give an economic benefit. This study has several limitations, and it thus provides the venue for future investigation in this topic. First, this study emphasizes village-based tourism, and therefore, future research can consider other types of tourism, such as heritage-based tourism in Indonesia. Second, the sample size is only forty-seven respondents, and thus, the next researcher on this topic can expand the sample size. Finally, this study investigates the positive economic impact, and future investigation can analyze the negative economic impact.

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#### References

- Bartlett, M. S. (1950). Tests of Significance in Factor Analysis. *British Journal of Statistical Psychology*, 3, 77–85.
- Boley, B. B., Strzelecka, M., & Watson, A. (2018). Place distinctiveness, psychological empowerment, and support for tourism. *Annals of Tourism Research*, 70(May), 137–139. <https://doi.org/10.1016/j.annals.2017.12.010>
- Chen, C., & Chen, P. (2010). Resident attitudes toward heritage tourism development. *Tourism Geographies*, 12(4), 525–545. <https://doi.org/10.1080/14616688.2010.516398>
- Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, 16(3), 297–334.
- Emerson, R. M. (1976). Social Exchange Theory. *Annual Review of Sociology*, 2, 335–362.
- Field, A. (2009). *Discovering statistics using SPSS*. New York: SAGE.
- Fields, M. A., & Keys, P. Y. (2003). The Emergence of Corporate Governance from Wall St. to Main St.: Outside Directors, Board Diversity, Earnings Management, and Managerial Incentives to Bear Risk. *The Financial Review*, 38, 1–24. <https://doi.org/10.1111/1540-6288.00032>
- Gursoy, D., Jurowski, C., & Uysal, M. (2002). Resident attitudes: a structural modelling approach. *Annals of Tourism Research*, 22(1), 79–105.
- Gursoy, D., & Rutherford, D. G. (2004). Host attitudes toward tourism: An improved structural model. *Annals of Tourism Research*, 31(3), 495–516. <https://doi.org/10.1016/j.annals.2003.08.008>
- Jurowski, C., Uysal, M., & Williams, D. R. (1997). A theoretical analysis of host community resident reactions to tourism. *Journal of Travel Research*, 36(3), 3–11. <https://doi.org/10.1177/004728759703600202>
- Kaiser, H. F. (1970). A second generation little jiffy. *Psychometrika*, 35(4), 401–415. Retrieved from <http://www.springerlink.com/index/4175806177113668.pdf>
- Ko, D., & Stewart, W. P. (2002). A structural equation model of residents' attitudes for tourism development. *Tourism Management*, 23, 521–530.
- Lee, T. H. (2013). Influence analysis of community resident support for sustainable tourism development. *Tourism Management*, 34, 37–46. <https://doi.org/10.1016/j.tourman.2012.03.007>
- Likert, R. (1931). *A Technique for the Measurement of Attitudes: Archives of Psychology*. New York, NY: Columbia University Press.
- Lindberg, K., & Johnson, R. L. (1997). Modelling resident attitudes toward tourism. *Annals of Tourism Research*, 24(2), 402–424.
- Nunnally, J. C. (1978). *Psychometric Theory* (2nd ed.). New York: McGraw-Hill.
- Pallant, J. (2007). *SPSS Survival Manual: A Step by Step Guide to Data Analysis using SPSS for Windows (3rd edition)* (3rd ed). New York: Open University Press.
- Perdue, R. R., Long, P. T., & Allen, L. (1990). Resident support for tourism development. *Annals of Tourism Research*, 17, 586–599.
- Rasoolimanesh, S. M., Ringle, C. M., Jaafar, M., & Ramayah, T. (2017). Urban vs rural destinations:

- Residents' perceptions, community participation and support for tourism development. *Tourism Management*, 60(June 2017), 147–158.  
<https://doi.org/10.1016/j.tourman.2016.11.019>
- Sekaran, U. (2013). *Research Methods For Business*.
- Sharma, B., & Dyer, P. (2009). An investigation of differences in residents' perceptions on the sunshine coast: tourism impacts and demographic variables. *An International Journal of Tourism Space, Place and Environment*, 11(2), 187–213.  
<https://doi.org/10.1080/14616680902827159>
- Sinclair-Maragh, G. (2017). Demographic analysis of residents' support for tourism development in Jamaica. *Journal of Destination Marketing and Management*, 6(1), 5–12.  
<https://doi.org/10.1016/j.jdmm.2016.03.005>
- Sofield, T., & Lia, S. (2011). Tourism governance and sustainable national development in China: A macro-level synthesis. *Journal of Sustainable Tourism*, 19(4–5), 501–534.  
<https://doi.org/10.1080/09669582.2011.571693>
- Wongso, J., Zaitul, Ilona, D., & Anief, B. (2019). Support for heritage tourism development: the case of Ombilin Coal Mining Heritage of Sawahlunto, Indonesia. In *The 2nd International Conference of science, Engineering and Technology (ICOSET)* (pp. 1–7).
- Yoon, Y., Gursoy, D., & Chen, J. S. (2001). Validating a tourism development theory with structural equation modeling. *Tourism Management*, 22, 363–372.
- Zuo, B., Gusoy, D., & Wall, G. (2017). Residents' support for red tourism in China: The moderating effect of central government. *Annals of Tourism Research*, 64(May 2017), 51–63.  
<https://doi.org/10.1016/j.annals.2017.03.001>