

Community-Based Heritage Tourism Management Model: Perception Driving Participation

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Abstract

The development of community-based heritage tourism is not fully optimized, showing a deficiency in the comprehension and resulting in comparatively low levels of engagement. The existing management model is characterized by spontaneity, lacking the strategic and sustainable planning essential for effective implementation. Therefore, this research aimed to analyze the influence of perception on participation to formulate community-based heritage tourism management model. A quantitative correlational method comprising perception and participation variables was adopted and the data were analyzed using SPSS version 23. The results showed that perception variables did not partially influence community participation in heritage tourism, namely management, stakeholder engagement, and tourism experience. Based on the correlational analysis, community-based heritage tourism management model is derived, comprising five aspects such as perception driving community participation, heritage tourism management characteristics, stakeholder engagement, investment, and digitalization. The implementation of management model is expected to realize sustainable heritage tourism, improve the local economy, and promote environmental and cultural conservation. The research has a novelty in the form of a community-based tourism management model that focuses on heritage tourism development.

Keywords: heritage; conservation; storytelling; thematic; authenticity

Introduction

In the traditional perspective, heritage is composed of historical legacies, including monumental objects and buildings, archaeological sites, and cultural landscapes (Lanen et al., 2022). In the modern era, cultural heritage is dynamically and broadly defined, including comprehensive preservation and an increased role in shaping community, identities, and environments (Fairclough & van Londen, 2010; Holtorf, 2007; Janssen et al., 2017; Renes, 2019; Vecco, 2010). The concept is an inherited legacy protected and classified into material

and non-material categories (Cahyadi et al., 2009). Furthermore, it is a special interest tourism formed by the combination of various types of tourism, including pilgrimage, cultural, natural, heritage, and marine tourism (Cahyadi et al., 2009).

Community-based tourism has become an alternative for its development (Lo et al., 2020) to improve the well-being of local community (Sutresna et al., 2019). This has distinctive characteristics compared to conventional destinations and relies on the diverse potential of villages to attract tourists, with the support of stakeholders and community services (Pham Hong et al., 2021). Abundant resources and safety factors in rural areas are added value for community-based tourism (Lo et al., 2020). This encounters different challenges, including resource availability, infrastructure, competition among tourism products (Pham Hong et al., 2021), social issues, financial problems, and community engagement (Lo et al., 2020).

Community-based heritage management can attract tourist visits (Baedcharoen, 2006) and enhance the well-being of local community (Boonratana, 2010; Ekowati & Nawarcono, 2022). Sustainable management promotes this industry growth, and resource balance, as well as impacts local community awareness and tourist satisfaction. Sustainability includes various dimensions, such as nature, economics, and social aspects to meet the needs of the local community through current and future employment (Dixon, 2012). Community-based tourism can fulfill the social and financial needs of local stakeholders over time (Han et al., 2019; (Lo & Janta, 2020); Pham Hong et al., 2021). The development is divided into three clusters, such as nature-based ecotourism, historical district-based building, and shopping tourism, as well as cultural landscape-based agrotourism (Yodsurang et al., 2022). These clusters represent the identity to manage and interpret heritage. Tourism is influenced by the concepts of heritage, culture, and tangible or intangible categories (Di Pietro et al., 2018). Tangible identities include architecture, landscapes, urban spatial planning, views, and vegetation. Meanwhile, intangible identities comprise the city's functions, place names, traditional events, historical stories, lifestyles, food, and local wisdom (Sirisrisak, 2007).

Heritage is a potential attraction that can capture the interest of tourists (Jugmohan et al., 2016). Management often experiences failures due to being exploited as a commodity in tourism industry (Yodsurang et al., 2022). New developments and changes in the function of buildings due to the growth of business and service sector, pose a threat to heritage preservation (Prihantoro, 2021). Various strategies can be used to address the threats to cultural preservation, including the Historic Urban Landscape (HUL) method, which comprises four components, such as community participation, knowledge and planning, regulatory systems, and financial tools (UNESCO, 2016). A historical perspective and the existence of heritage are essential to anticipate threats to culture. The historical perspective is constructed to realize the right concepts, including urban planning, sustainable development, and climate adaptation. The awareness can establish new standards and contextualize sustainable cultural heritage (Lanen et al., 2022). The use of heritage resources is an alternative management strategy for tourism or special interests. Heritage tourism promotes conservation (Potter, 2009) and has marketing potential because the concept can attract through resource preservation and protection (Ismagilova et al., 2015). The resources are developed as tourist destinations that reflect the identity of local community through community-based method to achieve sustainable development (Capapé, 2018). Dynamically managing landscapes and heritage sites through a flexible method can lead to sustainable preservation (Scheppers et al., 2021).

The potential of heritage has been managed with the digitalization concept. Digitalization enhances accessibility to resources (Santos et al., 2014) and facilitates the presentation of cultural heritage collections (Remondino, 2011). Meanwhile, preservation is implemented periodically for contextual, integrated, and digitally accessible reasons (Fairclough & van Londen, 2010; Lanen et al., 2022). Digitalization-based heritage tourism

management requires investments from various stakeholders. Investments focusing on sustainable development can stimulate the business (Król, 2021), as well as enhance the attraction, prestige, recognition, and brand of a tourist destination (Król, 2021).

Economic activities and heritage resources are closely related to preservation aspects that refer to the strength of a place and its consumption patterns (Dolezal, 2011; Li, 2003). The preservation can be eroded by excessive economic activities, commodification, neglect, and overlooked standardization (Ho & McKercher, 2004). The agricultural sector, as one of the economic activities, has been repositioned to optimize the integration of native cuisine, culture, health, and the environment into a sustainable tourism experience (Srithong et al., 2019). The adoption of these practices and the preservation of local cultural heritage are important factors in the development of eco-friendly heritage (Sattaka et al., 2017). Tourists have different perspectives on authenticity due to its presentation and management (Su et al., 2020). Authenticity in the modern era is not only defined as original material but recognition of multicultural origins, living traditions, and a focus on quality values (Niskasaari, 2008; Renes, 2019). The complexity includes object attribution, ritual places, personal connections with hosts, and opportunities for visitors to learn about local culture (Walter, 2015). Heritage authenticity can enhance the experiences interpreted by individuals regarding social culture (Park et al., 2019). In this context, community-based tourism creates interactions between visitors and the local community, leading to experiences of rural authenticity to impact local stakeholders (Sangkaew & Zhu, 2020).

Community-based tourism often positions local community as objects of exploitation due to a lack of power and capacity to be included in decision-making (Sutresna et al., 2019). The process of planning monitoring and evaluation can be built through collaborative and participatory cooperation (Sutresna et al., 2019). The engagement of local community is crucial for empowerment, preservation, and resource sustainability (Lo & Janta, 2020). Community-based tourism provides opportunities for residents to engage in enhancing the local economy through management of natural and cultural resources (Nurhidayati, 2007). This is based on three prerequisites, including leadership, the growth of tourism culture, and the availability of community tourism drivers (Ismanto et al., 2023).

The sustainable preservation of heritage and community engagement can be achieved through a multi-perspective method and the Historical Geographical Information System (HGIS) (Lanen et al., 2022). Multi-perspective is crucial for dynamic stakeholders, while the HGIS concept realizes model and analyses the impact of the environment on cultural heritage (Lanen et al., 2022). Local community actively participate in identifying key aspects of a landscape (Amoruso, 2011) to optimize tourism experience through systematic interpretation of information and heritage values (Liu & Lin, 2021). Participation in the cycle of activities includes seven aspects, namely needs assessment, planning, mobilization, training, implementation, monitoring, and evaluation (WEDC, 2005).

Banaran Village, Kulonprogo, Indonesia, is one of the destinations that offer heritage as a major attraction. Furthermore, this village is one of the supporting areas for the Borobudur Super Priority Tourism Destination. The resources include traditional arts, games, cuisine, cultural traditions, and historical sites. Heritage has not been optimally managed as an attraction, hence does not attract tourists. The development is expected to achieve heritage conservation and promote the local economy. The livelihood of the people in Banaran Village is predominantly based on agriculture, with relatively limited capabilities in tourism management. The methods used are still informal and rely on trial and error. Management faces various challenges, including perception and understanding of the local community regarding heritage tourism, awareness to actively participate, low knowledge and skills, stakeholder engagement, and limited investment in tourism sector. Therefore, this research aims to examine



and analyze community-based heritage tourism management through perception and participation. Community participation is a primary strategy for achieving heritage conservation (UNESCO, 2016) and it is an active process initiated by community perception (Nasdian, 2003). This research explores the extent to which community perception influences active participation in heritage tourism management. Previous research on community-based tourism has explored several aspects partially, including the CBT model (Zielinski et al., 2020) participation (Johnson, 2010; Jain & Triraganon, 2003; Ohe, 2020; Harwood, 2010; Yanes et al., 2019), management of resources (Yodsurang et al., 2022), and perception (Lanen et al., 2022). To bridge the gap in previous analysis, community perception and its influence on participation is analyzed. An overview of community participation is provided based on perception held. The research yields model for community-based heritage tourism management as a reference for relevant stakeholders.

Research design and methods

The design uses a quantitative correlational method to measure the influence of perception variable on participation (Creswell & Creswell, 2018). The research aims to investigate heritage tourism management through community perception and participation to generate recommendations for community-based heritage tourism model. The research uses six independent X and one dependent Y variables representing perception and participation. Perception is examined through the understanding of six aspects, which include the diversity of heritage tourism, the impact of heritage tourism management, stakeholder engagement, conservation aspects, tourism experiences, and strategies for tourism development in Banaran Village, as shown in Table 1.

Table 1. Theoretical foundations of items in the questionnaire

Items	Theoretical Foundations
Perception (X)	
X1.1 s.d X1.8	Diversity of heritage tourism (Yodsurang et al., 2022)
X2.1 s.d X2.2	Economic impact of heritage tourism development (Boonratana, 2010; Ekowati & Nawarcono, 2022; Baedcharoen, 2006; Król, 2021).
X3.1 sd. X3.2	Stakeholder engagement in heritage tourism management (Król, 2021).
X4.1 s.d X4.3	Heritage tourism development as conservation program (Park et al., 2019; Srithong et al., 2019)
X5.1 s.d X5.4	Heritage tourism experiences (Sangkaew & Zhu, 2020)
X6.1 s.d X3	Strategies of heritage tourism development (Ismagilova et al., 2015; Potter, 2009; Santos et al., 2014).
Participation (Y)	
Y 1-18	Level of community participation through needs assessment, planning, mobilization, training, implementation, monitoring, and evaluation (WEDC, 2005).

The research was conducted in Banaran Village, located in Kulonprogo, Special Region of Yogyakarta, Indonesia. This Village has 13 hamlets with various heritage potentials, serving as a supporting area for the Borobudur Super Priority Tourism Destination near the Yogyakarta International Airport (YIA). Community-based heritage tourism management lacks a positive impact on the well-being of the local community or achieved conservation. The respondents selected using purposive sampling were members of the Banaran Village community who meet the criteria of actively participating in tourism management, and falling within the productive age range (20 to 59 years). This village has a population of 5,526 people, with the productive age comprising an average of 50%, which is around 2,763 people (Central Bureau of Statistics of Kulonprogo, 2022). The minimum sample size for correlation-based research is 10 times the

number of variables (Sugiyono, 2016). The research consists of six X, and one Y variable, and the minimum sample size required is 70 respondents which then took a sample of 125.

The research data consists of primary and secondary data. Primary data is obtained through a survey method by distributing questionnaires to 125 respondents, while secondary data is collected through the documentation process. The questionnaire is measured using a 5-point Likert scale with positive to negative gradation, namely 5 (Strongly Agree), 4 (Agree), 3 (Neutral), 2 (Disagree), and 1 (Strongly Disagree). The 5-point Likert scale is used to measure perception and participation as a social phenomenon in community-based tourism development (Sugiyono, 2016). The variables are measured by 48 indicators determined through references from previous research, as presented in Table 1.

The instrument, in the form of a questionnaire, was tested for validity and reliability (Sugiyono, 2016). The testing was conducted using the Statistical Package for the Social Sciences (SPSS) software version 23 to determine the validity and reliability of the questionnaire. Validity testing was performed by comparing the calculated r-value with the r-table value. Furthermore, reliability testing was conducted by comparing the Cronbach's Alpha value as shown in Table 2.

Table 2. Instrument testing data analysis

Validity						Reliability					
Indicator	r	Indicator	r	Indicator	r	Indicator	r	Indicator	r	Variable	α
	count		count		count		count		count		count
X1.1	0,336	X2.1	0,885	X5.1	0,659	Y1	0,383	Y10	0,793	X1	0,731
X1.2	0,557	X2.2	0,744	X5.2	0,721	Y2	0,546	Y11	0,819	X2	0,492
X1.3	0,719	X3.1	0,795	X5.3	0,718	Y3	0,501	Y12	0,550	X3	0,525
X1.4	0,559	X3.2	0,852	X5.4	0,595	Y4	0,413	Y13	0,631	X4	0,591
X1.5	0,650	X4.1	0,556	X6.1	0,597	Y5	0,520	Y14	0,716	X5	0,561
X1.6	0,797	X4.2	0,586	X6.2	0,720	Y6	0,734	Y15	0,788	X6	0,330
X1.7	0,817	X4.3	0,471	X6.3	0,683	Y7	0,720	Y16	0,853	Y	0,931
X1.8	0,402					Y8	0,725	Y17	0,854		
						Y9	0,846	Y18	0,839		

Source: Data analysis (2023)

Based on the data in Table 2, the calculated r-value is greater than the r-table value with $N = 125$, which is 0.1757, hence all indicators are considered valid. Reliability testing is measured by the Cronbach's Alpha (α) value using measurement indices according to Khairinal (2016) as follows: variable Y has perfect reliability (α count > 0.90), variable X1 has high reliability (α count > 0.70), variables X3, X4, and X5 have moderate reliability (α count > 0.50), and variables X2 and X6 have low reliability (α count < 0.50).

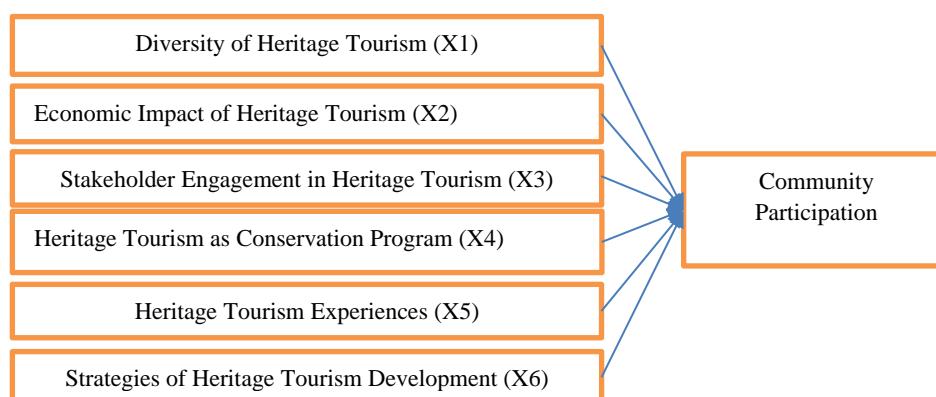


Figure 1. Influence of Perception (Variable X) on Contribution (Variable Y): Source: Researcher (2023)

Secondary data was analyzed using data reduction methods, which comprise selecting data according to research needs (Miles et al., 2014). Primary data was analyzed using SPSS software version 23 to determine the influence of perception on community participation in heritage tourism management. The primary data analysis consisted of several stages, including descriptive statistical analysis, classic assumption testing, and multiple linear regression. Model of the influence of perception variables (X) on participation (Y) is presented in Figure 1.

Research framework

The research starts with strategic issues as the fundamental problem in Banaran Village. These issues serve as the basis for formulating the research objectives to provide alternative solutions in the form of community-based heritage tourism management model as shown in Figure 2.

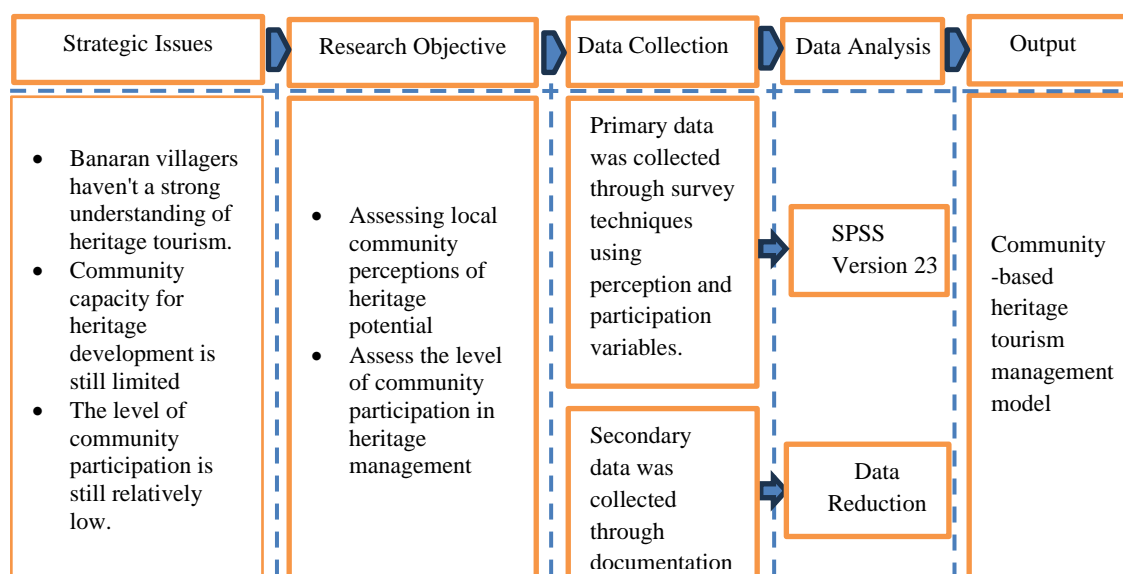


Figure 2. Research framework
 Source: Researcher (2023)

Result and discussion

Overview of Banaran village

Banaran Village is in the Galur Sub-district, Kulon Progo Regency, Special Region of Yogyakarta, Indonesia. The village is strategically positioned for development as community-based heritage tourism area. Furthermore, it serves as a supporting area for the Borobudur Super Priority Tourism Destination, located close to YIA. YIA was inaugurated in 2020 as the main airport in the Special Region of Yogyakarta, making Kulon Progo one of the main gateways for tourists visiting the region. Banaran Village is also traversed by the South Crossroad and South Coast Road, which facilitates accessibility to several areas along the southern coast. The easy access provides a significant opportunity for tourism development. This village is the second-largest in the Galur Sub-district, covering an area of 947.25 hectares and featuring various potentials, including natural, culinary, heritage, educational, and man-made attractions. The primary attractions include Trisik Beach, Turtle Conservation, Gonzairo River, Migratory Bird Migration, and Banaran Village's traditional culinary offerings. Meanwhile, heritage tourism potential has not been optimally developed. The majority of the population's livelihoods are based on farming, and their educational background is predominantly senior high school (48.5%) (Central Bureau of Statistics of Kulonprogo, 2022). The local community lacks strong competence in sustainably managing heritage tourism

potential. Therefore, the existing management practices are spontaneous and lack strategic planning. Heritage tourism packages can be enjoyed by tourists based on prior orders and prepared according to tourists' preferences and needs. Banaran Village does not have a sustainable community-based heritage tourism management model.

Descriptive statistical analysis

Descriptive statistical analysis was conducted to understand the data collected, which includes respondent demographics and their responses to the 48 indicators, as shown in Tables 3 and 4.

Table 3. Respondent Identity

Gender	Frequency (F)	Percentage (%)	Job	Frequency (F)	Percentage (%)
Male	75	58.1	Civil Servant	0	0
Female	50	38.8	Private Employee	9	7.0
Age	Frequency (F)	Percentage (%)	Self-Employed	36	27.9
< 20 Years	0	0	Military/Police	0	0
20 - 30 Years	86	66.7	Student	18	14.0
31 – 40 Years	25	19.4	Farmer	57	44.2
41 – 50 Years	11	8.5	Others	5	3.9
> 50 Years	3	2.3			
Education	Frequency (F)	Percentage (%)	Income	Frequency (F)	Percentage (%)
Elementary	0	0	< 1 Million	31	24.0
Junior High	33	25.6	1 – 2,9 Million	82	63.6
Senior High	74	57.4	3 – 5,9 Million	12	9.3
Diploma	18	14.0	6 – 10 Million	0	0
Bachelor/	0	0	> 10 Million	0	0
Postgraduate/					
Doctoral					
Others	0	0			

Source: Dara Analysis (2023)

Based on the data in Table 3, the Banaran Village community is predominantly of productive age, between 20 and 30 years, at 66.7%.

Table 4. Variable description

Indicator	F	%	F	%	F	%	F	%	F	%	Indicator	F	%	F	%	F	%	F	%		
	1	2	3	4	5		1	2	3	4	5		1	2	3	4	5				
X1	Diversity of Heritage Tourism					X6	Strategies of Heritage Tourism Development														
X1.1			11	8,5	9	7,0	105	81,4	X6.1	3	2,3	5	3,9	47	36,4	70	54,3				
X1.2			2	1,6	62	48,1	61	47,3	X6.2	5	3,9	13	10,1	47	36,4	60	46,5				
X1.3		8	6,2	12	9,3	59	45,7	46	35,7	X6.3	26	20,2	8	6,2	25	19,4	66	51,2			
X1.4		2	1,6	19	14,7	63	48,8	41	31,8	Y	Community Participation										
X1.5			27	20,9	48	37,2	50	38,8	Y1	5	3,9	4	3,1	51	39,5	65	50,4				
X1.6			18	14,0	54	41,9	53	41,1	Y2	4	3,1			73	56,6	48	37,2				
X1.7			12	9,3	70	54,3	43	33,3	Y3			10	7,8	69	53,5	46	35,7				
X1.8	7	5,4			18	14,0	55	42,6	45	34,9	Y4	7	5,4	15	11,6	667	51,9	36	27,9		
X2	Economic Impact of Heritage Tourism					Y5	5	3,9	16	12,4	61	47,3	43	33,3							
X2.1	8	6,2			8	6,2	53	41,1	56	43,4	Y6			7	5,4	71	55,0	47	36,4		
X2.2	2	1,6			5	3,9	59	45,7	59	45,7	Y7			8	6,2	77	59,7	40	31,0		
X3	Stakeholder Engagement in Heritage Tourism					Y8			14	10,9	70	54,3	41	31,8							
X3.1		1	0,8	7	5,4	74	57,4	43	33,3	Y9	6	4,7	13	10,1	69	53,5	37	28,7			
X3.2					23	17,8	63	48,8	39	30,2	Y10	6	4,7	17	13,2	71	55,0	31	24,0		
X4	Heritage Tourism Development as Conservation Program					Y11	6	4,7			40	31,0	57	44,2	22	17,1					
X4.1					24	18,6	52	40,3	49	38,0	Y12			47	36,4	58	45,0	20	15,5		
X4.2					11	8,5	55	42,6	59	45,7	Y13			19	14,7	78	60,5	28	21,7		
X4.3					2	1,6	69	53,5	54	41,9	Y14			20	15,5	74	57,4	31	24,0		
X5	Heritage Tourism Experiences					Y15			6	4,7	31	24,0	55	42,6	33	25,6					
X5.1	1	0,8	2	1,6	7	5,4	57	44,2	58	45,0	Y16	7	5,4	34	26,4	55	42,6	29	22,5		
X5.2	1	0,8	11	8,5	28	21,7	39	30,2	46	35,7	Y17			7	5,4	23	17,8	57	44,2	38	29,5
X5.3					5	3,9	47	36,4	73	56,6	Y18	7	5,4	36	27,9	42	32,6	40	31,0		
X5.4					1	0,8	43	33,3	81	62,8											

Source: Data analysis (2023)

This age group is crucial for tourism development, requiring creative and innovative human resources. The difference between males and females is not significant, showing gender equality in tourism management. Both men and women have equal opportunities to actively participate in all aspects, from planning to monitoring. The majority of community has completed high school education, with 57.4% of respondents. Only 14% have pursued higher education in fields other than tourism, showing limited local competence in related management. The primary livelihood of the Banaran Village population is farming, representing 44.2%, with an average income of 1 million to 2.9 million Rupiahs. The capability in farming and the village's potential can be developed into tourism packages to increase local income.

Table 4 shows the respondents' answers to the indicators of variables X and Y. Variable X or perception is divided into six parts, each measured through its respective indicators. Variable X1, which is the diversity of heritage tourism, is measured using eight indicators, such as nature-based (X1.1), culture-based (X1.2), building-based (X1.3), culinary-based (X1.4), belief-based (X1.5), tradition-based (X1.6), story/history-based (X1.7), and homestay-based heritage tourism (X1.8) (Yodsurang et al., 2022). Based on Table 4, Banaran Village has diverse heritage tourism, including nature, culture, buildings, culinary, beliefs, traditions, and history, as perceived by community, with an average agreement rate of 75%. Culture-based heritage tourism received the highest score at 95.4%, including Trisik Beach, Gonzairo River, Tom Batik, Smoked Catfish, traditional dance, traditional ceremonies, and traditional homestays.

Variable X2, which is the economic impact of heritage tourism development, is measured using two indicators to improve the standard of living (X2.1) and creating job opportunities (X2.2) (Boonratana, 2010; Ekowati & Nawarcono, 2022; Baedcharoen, 2006; Król, 2021). Community stated that heritage tourism development significantly impacts the improvement of the standard of living and job opportunities. A significant impact on improving the standard of living and job opportunities was at 84.95% and 91.4% with an average agreement rate of 87.95%. Variable X3, which is stakeholder engagement, is measured using two indicators, such as government agency engagement (X3.1) and the presence of investments (X3.2) (Król, 2021). Government agencies have a strong engagement in the development of heritage tourism, as seen in the strong agreement statements at 90.7%. However, investment in heritage tourism management is still relatively low.

Variable X4, which is the development of heritage tourism supporting conservation concept, is measured using three indicators, consisting of achieving preservation (X4.1), maintaining authenticity (X4.2), and the agricultural sector supporting conservation in culinary (X4.3). Based on the data, heritage tourism development has not been able to fully realize the conservation concept optimally, as seen in the scores of 78.3%. Heritage tourism development significantly contributes to preserving authenticity and supports culinary products through agriculture, as shown by the score of 85%. The Banaran Village area is dominated by agricultural land as part of the preservation of local cultural heritage (Srithong et al., 2019; Sattaka et al., 2017).

Variable X5, which is the experiences in heritage tourism, is measured using four indicators, such as thematic tour packages (X5.1), storytelling (X5.2), tour guides (X5.3), and opportunities for interaction with nature and local community (X5.4). Storytelling has the lowest score at 65%, while the other aspects have an average of 90%. The tourists' experience has not been optimally formed due to the inability to establish storytelling.

Variable X6, which is heritage tourism development strategies, is measured using three indicators, including marketing strategies (X6.1), alternative tourism (X6.2), and digitalization (X6.3). The concept can be developed as a tourist attraction that can increase tourists' interest,

as evidenced by strong agreement rates of 90.7%. However, heritage tourism development has not fully implemented technology optimally, with community's perceived agreement rate at 70%.

Variable Y, which is participation in heritage tourism development, is measured using 18 indicators of community engagement, including providing creative ideas (Y1), achieving goals (Y2), enhancing partnerships (Y3), formulating objectives (Y4), criticizing objectives (Y5), raising community awareness (Y6), supporting cultural preservation and village tourism (Y7), participating in formal and informal training (Y8), managing programs (Y9), operations (Y10), contributing cash capital (Y11), contributing in-kind capital (Y12), providing time (Y13), offering support through labor (Y14), becoming members of cultural heritage preservation organizations (Y15), assessing results (Y16), identifying improvements (Y17), and redefining needs (Y18). Based on the data in Table 4, community participates quite actively, with an average score of 80% on several aspects, such as providing creative ideas, achieving goals, enhancing partnerships, formulating objectives, criticizing objectives, raising community awareness, supporting cultural preservation and village tourism, participating in formal and informal training, managing programs, operations, providing time, offering support through labor, and identifying improvements. However, community participation is considered low, with an average score of 60% on some aspects, such as providing cash or in-kind capital, becoming members of organizations, assessing the results of heritage tourism management, and redefining needs for heritage tourism development. The majority of the population are farmers, which limits their resources to contribute capital in cash or kind. Engagement in evaluating the results or performance of management and identifying the needs for tourism development is relatively low due to limited knowledge and skills. Based on the data on respondent characteristics in Table 1, 44.2% of Banaran Village residents work as farmers while 57.4% have completed senior high school education.

Classical assumption tests

Classical assumption tests are conducted before performing multiple linear regression analysis to meet the criteria for the Best Linear Unbiased Estimator (BLUE). The research uses three classical assumption tests, namely normality, heteroskedasticity, and multicollinearity. The normality test aims to determine the level of normality in the data distribution through the P-plot test.

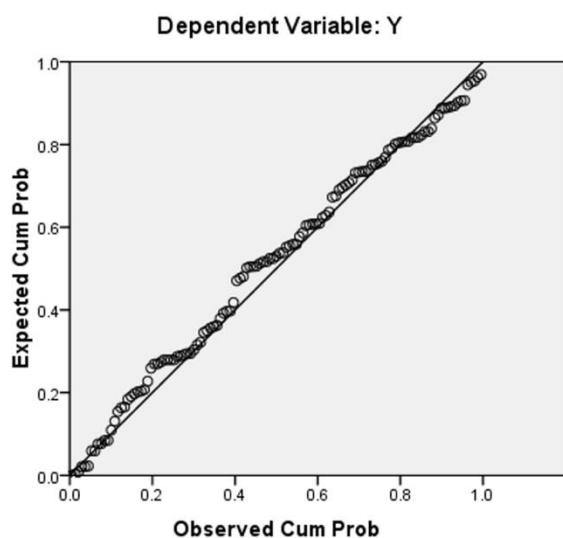


Figure 3. P-plot test

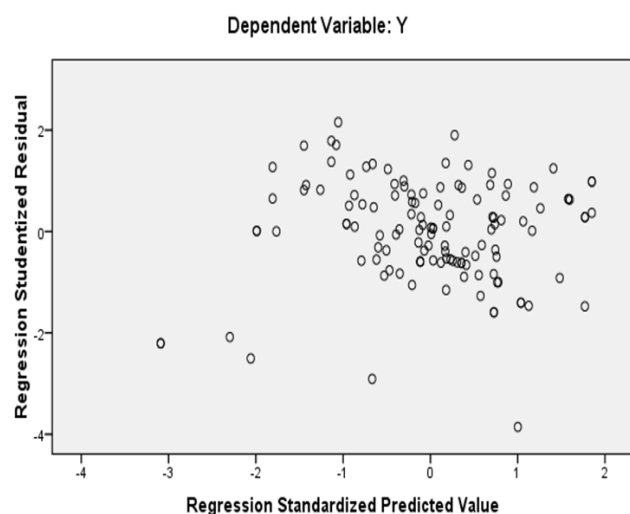


Figure 4. Scatterplot test

The normality test of the data shows a normal distribution, as evidenced by the scattered data points around the diagonal line, as presented in Figures 3 and 4. Based on the graph, the data points are randomly scattered and do not form a clear pattern or line. Therefore, there are no issues of heteroskedasticity in the regression model. A heteroskedasticity test is performed to determine the level of variation in residual variances between observations (Priyatno, 2013). Based on the scatterplot analysis, the regression model is free from heteroskedasticity issues because the data points are evenly distributed and do not form a specific pattern or line, as presented in Figure 4. A multicollinearity test is conducted to determine the level of correlation between two or more independent variables in the multiple linear regression model. Based on the results, the Tolerance values are greater than 0.1, specifically 0.9 (X1), 0.7 (X2), 0.2 (X3, X4), and 0.6 (X5, X6). The VIF values are less than 10, namely 1 (X1, X2, X5, X6), and 4 (X3, X4), showing the absence of multicollinearity in the regression model.

Multiple linear regression analysis

Multiple linear regression analysis is conducted to determine the influence of variable X (perception) on Y (participation) of community in the development of heritage tourism as presented in Table 5.

Table 5. Coefficients

Model	Unstandardized Coefficients		t	Sig	F	Sig	Adjusted R Square
	B	Std. Error					
Constant	2,636	11,337	0,232	6,921	0,000	0,260	0,223
X1	0,597	0,222	2,695	0,008			
X2	0,553	0,579	0,955	0,342			
X3	-	1,521	-	0,186			
	2,025		1,331				
X4	1,223	0,580	2,186	0,031			
X5	0,705	0,479	1,474	0,143			
X6	1,071	0,492	2,178	0,031			

Source: Analysis data (2023)

Based on Table 5, the equation for multiple linear regression analysis can be formulated as follows:

$Y = 2,636 + 0,597X_1 + 0,553X_2 - 2,025X_3 + 1,223X_4 + 0,705X_5 + 1,071X_6 + e$. The level of partial influence between variables is observed from the value of t-statistic and significance. Variable X influences Y when it has a t-statistic value greater than the t-table for 125 respondents, which is 1.98027, with a significance value smaller than 0.05. Based on the data in Table X, the aspects of variable X (perception) that significantly influence Y (participation) are Heritage Tourism Diversity (X1), conservation (X4), and strategy (X6), while other aspects do not have a partial influence, namely the economic impact of heritage tourism management (X2), stakeholder engagement (X3), and tourism experience (X5). Simultaneously, all variables have a significant effect, as seen from the calculated F-value of 6.921, greater than the F-table value of 2.18, with a value of 0.000 (< 0.05). As seen from the adjusted R Square value of 0.233 or 23.3%, participation is affected by 23.3%, while the remaining 76.7% is explained by other variables (Ghozali, 2016).

Community perception of heritage tourism in Banaran village

All perception variables have a significant influence on participation. However, there are individual variables without an impact, namely the economic impact of heritage tourism management (X2), stakeholder engagement (X3), and tourism experience (X5). Heritage

tourism management has not significantly impacted economic growth. This is not optimally managed because the knowledge and skills of community are still limited. In this context, tourism demands community engagement as the driving force behind its management. Knowledge and skills are crucial aspects for the success of management.

Stakeholder engagement is still relatively low in Banaran Village, including Gadjah Mada University, BSI engagement, the Indonesian Arts Institute, local government at the sub-village and district levels, and several community related to tourism activities. The managers need to enhance and expand their network across various sectors. Active participation from stakeholders can anticipate and address limitations in resources, specifically human. Collaboration in management of tourism village can be built through partnerships with the pentahelix of tourism, including academics, government, businesses, community, and the media. This can be established in three forms: 1) mentoring to enhance human resource capacity by academics, government, and community, 2) investments in cash or kind from the government and business entities through CSR, and 3) joint marketing communication with media and community. Media partners become one of the most effective and efficient strategies in tourism promotion and marketing programs online and offline. Meanwhile, media serves as a marketing tool capable of reaching a wide audience of tourists with relatively efficient time and cost.

The tourist experience in Banaran Village has not been optimally realized. Furthermore, tourism packages presented have not been packaged with strong storytelling and interaction with community. Heritage tourism contains elements passed down from previous generation, rich with stories or history from ancestors. Strong storytelling in the activities can provide deep meaning and transport tourists to heritage era. This variable is crucial for tour guides to create tourist experiences. The determinants include uniqueness, attractiveness, and education significantly influence the experiences through the destination's brand value (Jo et al., 2022). Storytelling in cultural heritage assets affects three aspects, namely improving institutional performance, enhancing DMO image, and cultural heritage interpretation (Zins & Abass, 2023).

Perception variables with a significant partial and simultaneous influence on community participation interest are heritage tourism diversity, conservation, and management strategy. Heritage tourism can be a superior attraction because it is unique and not found elsewhere, including Trisik Beach, turtle conservation, migratory bird migration, and Gonzairo River. These attract tourists and open business opportunities, increasing community's enthusiasm for participating in tourism development. Conservation aspect encourages community contributions with an increased awareness of the importance. Community has a strong desire to participate in various activities that support environmental and cultural preservation. Furthermore, conservation activities support the sustainability of the environment and culture to be inherited by future generations (Park et al., 2019; Srithong et al., 2019). Tourism becomes a vessel for realizing environmental and cultural preservation through responsible and sustainable packages. The implemented strategy has a significant impact on participation interest. The strategic development is increasingly important with the optimal use of technology. Digitalization of tourism is a demand for businesses that want to be globally competitive.

Community participation in heritage tourism management

Based on the data in Table 4, community has an interest in actively participating in several aspects, including providing creative ideas, achieving goals, enhancing partnerships, formulating goals, criticizing goals, increasing community awareness, supporting Pokdarwis and tourist villages, participating in formal and informal training, managing programs,

operations, providing support in the form of energy, and identifying improvements. There is also low participation interest in several aspects, namely providing cash and in-kind capital, becoming a member of an organization, evaluating the results of heritage tourism management, and redefining needs for heritage tourism development. This corresponds to the conditions of limited income, knowledge, and skills. However, community cannot participate in providing cash or in-kind capital since the majority work as farmers. This means that limited knowledge and skills are obstacles to evaluate and define needs in tourism management.

Model of community-based heritage tourism management

Based on the analysis of the influence of community perception and participation, several social phenomena were formulated into management model. Meanwhile, the success is heavily determined by the participation driven by perception (Pajriah, 2018). Knowledge and skills are the main indicators of success. Community perception greatly determines the enthusiasm for participation in management. Furthermore, the management has several characteristics, including thematic tour packages, strong storytelling, offering authenticity as the uniqueness and excellence of the product, as well as heritage conservation. Rural communities have significant limitations in terms of capital and human resource capacity, requiring the inclusion and investment of stakeholders. In this context, the concept must implement digitalization concepts to remain competitive and sustainable as presented in Figure 5.

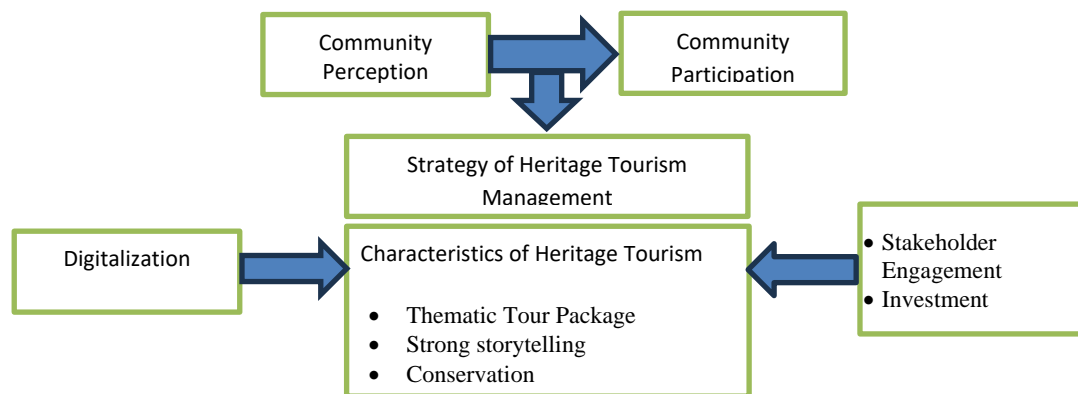


Figure 5. Model of community-based heritage tourism management
 Source: Researcher (2023)

Conclusions

In conclusion, the success of community-based heritage tourism management was heavily determined by the participation of community around the attractions. Participation was driven by community's perception of management in Banaran Village. Perception was built on several aspects, including the diversity of heritage tourism, economic impact, stakeholder engagement, conservation, experiences, and development strategies. The aspects simultaneously influence participation but heritage tourism management, stakeholder engagement, and tourism experiences did not have any effect. These three aspects had relatively low performance, and community was not motivated to participate in heritage tourism management. The diversity of potential and conservation significantly affected participation since community was aware of the potential diversity of heritage developed for tourism. Awareness of the importance of environmental and cultural conservation also encouraged community to participate in conservation activities through tourism. The strategies implemented through technology-based attraction packaging could stimulate participation. Heritage tourism management had the characteristics of thematic tour packaging, storytelling, authenticity, and conservation.

The research includes two variables, namely perception and participation. Perception and participation variables are broadly researched and do not present specific characteristics of heritage tourism. Future research could focus more on the dominant aspects of cultural tourism, including thematic tour packages, storytelling, authenticity, and conservation. Furthermore, storytelling is a crucial aspect of optimizing the cultural tourism experience through the historical narratives behind cultural attractions. As the primary driver of tourism, community faces challenges in building storytelling due to limitations in knowledge and skills. Future research could focus on opportunities and challenges in building storytelling for community-based heritage tourism.

The research provides recommendations for community-based heritage tourism management model that considers several aspects, including strengthening perception to drive community participation, characteristics, stakeholder engagement, investment, and digitalization. The implementation of management model is expected to realize sustainable heritage tourism, improve the local economy, and promote environmental and cultural conservation.

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