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THE IMPACT OF HERITAGE TOURISM AT KAMPUNG HERITAGE KAYUTANGAN, INDONESIA: INSIGHTS FROM VISITORS' AND RESIDENTS' PREFERENCES

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Abstract

Malang City is well-known for its significant historical past from the Dutch East Indies period, which has made it a popular heritage tourism destination in East Java. Kampung Heritage Kayutangan, with its well-preserved historical buildings, exemplifies this attraction. The study explores the various factors that influence the significance of historical building tourism in shaping visitors' experiences. The research employs a mixed-methods approach, utilizing a sequential explanatory design that integrates both qualitative and quantitative assessments. The findings reveal that historical buildings significantly impact the tourist experience, with historical value, aesthetic value, and accessibility being the most influential factors. Visitors primarily emphasize the historical and cultural importance. Meanwhile, the residents emphasize the architectural aesthetic features. By embracing sustainable tourism practices and encouraging community involvement, Kampung Heritage Kayutangan can serve as a model for harmonizing heritage conservation with urban development, ensuring long-term preservation while strengthening the local cultural identity and economic growth.

Keywords: Significance, Historical building, Kampung Heritage Kayutangan, Visitors' and residents' preferences, Sustainable tourism

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INTRODUCTION

Malang City is one of the historical cities in East Java that has undergone development since the Dutch East Indies era (Tutuko et al., 2021). As a result, it has become rich in historical heritage, including its architecture and urban planning. The Malang City Government has decided to promote the city as a historical tourist destination along with the development of heritage tourism (Antariksa et al., 2024). Travelers visit historical sites in search of unique experiences and to understand the architecture, culture, and history that have shaped modern society (Timothy & Boyd, 2006). In this sense, the Kampung Heritage Kayutangan in Malang City, East Java, is one of the top destinations that provides an engaging heritage tourism experience with its well-preserved historical buildings.

The growth of the historic tourism sector is a fast-expanding trend that has become a significant emphasis in the worldwide tourist business, one of which is Kampung Heritage Kayutangan. Tourists seek unique experiences by visiting historical places to learn about the history, culture, and architecture that shape modern life. Previous studies have extensively analyzed the visual quality of buildings and architectural aspects, such as building facade assessments and 3D interactive visualizations (Santosa et al., 2016), but few have looked into visitor behavior and preferences. Additionally, residents' preferences as a part of the community in preserving the cultural heritage have been underexplored, despite their significant contributions to the heritage tourist experiences.

The significance of historical building tourism aligns with the Sustainable Development Goals (SDGs). It supports local economic enhancement and cultural preservation, particularly SDG 11, which emphasizes sustainable cities and communities (Khairunnisa & Sudikno, 2022). Incorporating sustainable tourism through community participation improves residents' quality of life and ensures environmentally sustainable, culturally sensitive activities, supporting SDG 12 on responsible consumption and production (Hu et al., 2022). By emphasizing community involvement and adopting sustainable practices, this heritage site can serve as a model for how historical tourism contributes to local economic growth while fostering environmental responsibility.

LITERATURE REVIEW

A historically developed area successfully transformed into a tourist destination must foster a positive relationship between the community and the environment to enhance its social value. Organized social activities in heritage areas are key to creating vibrant and successful sites, as these activities can build identity, a sense of belonging, and a deep meaning of place for the community (Hu et al., 2022). The transformation of historical buildings into tourist attractions supports

cultural preservation and economic revitalization of the area, as long as the historical integrity is maintained, according to UNESCO (2003). The development of facilities, such as guided tours and art attractions, must consider visitor preferences to create meaningful experiences (Chen & Chen, 2010). The main challenge is balancing cultural preservation with sustainable tourism development without compromising the authenticity of the buildings (Dutta & Husain, 2009; Liu et al., 2018).

Historical buildings play an essential role as educational tools by presenting stories of the past that enrich visitors' understanding of history and culture (Shamsuddin et al., 2024). As an educational tourist destination, this building offers an immersive, hands-on experience, enhances historical literacy, and encourages respect for cultural heritage (Vodopivec et al., 2014). Heritage tourism in Indonesia has also significantly impacted economic growth and community development. Previous research by Suprpti et al. (2019) highlights that Kadilangu Cultural Heritage Village in Demak demonstrates how the heritage tourism sector generates direct financial benefits by stimulating the local economy, creating job opportunities, and encouraging resident entrepreneurship. Similarly, research on Kampung Taman Sari in Jogjakarta by Ernawati & Moore (2014) reveals that cultural tourism educates visitors and fosters a sense of pride within the local community, as preserving cultural heritage strengthens identity and social cohesion. To maximize the advantages of heritage tourism, a comprehensive approach that integrates innovation, community engagement, and environmental sustainability is essential.

RESEARCH METHODOLOGY

This study follows a mixed-method sequential explanatory design, starting with qualitative research (Phase A) and followed by quantitative research (Phase B). In Phase A, respondents ranked registered historical buildings through a questionnaire. The findings were analyzed using score rank to identify the most interesting objects based on the preferences of visitors and residents, which would then be used as selected samples in Phase B, as shown in Figure 1.

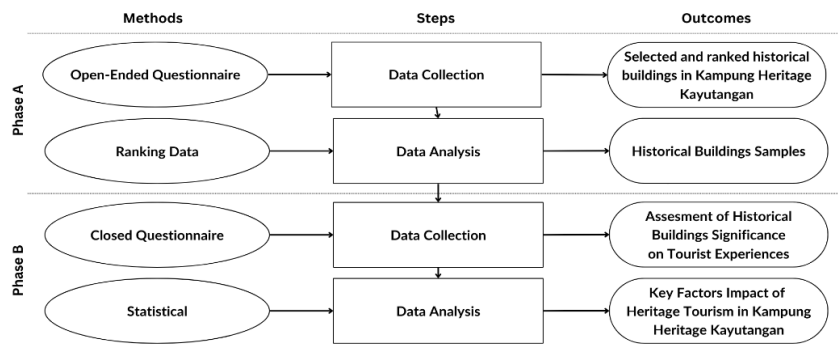


Figure 1: The Flowchart Diagram of the Research Process

The research sample was selected based on the respondents' answers on the buildings' interesting aspects as tourist destinations from the lists consisting of 10 historical buildings in Figure 2. These buildings were cataloged as assets of Malang's Heritage Buildings located in the Kampung Heritage Kayutangan: D'Penghulu, Jengki, 1870, Rindu, Nyik Aisyah, Mbah Ndut, Gubug Ningrat, Jacobeb, Jamu, and Kartini House.



Figure 2: Kampung Kayutangan's Heritage Buildings

Source: Authors

Phase B continued with an assessment of the significance of historical buildings using a questionnaire. This research used the independent variable of elements of heritage building significance. The influence of these elements was examined on the dependent variable, which is the tourism experience assessed based on the preferences of visitors and residents. The research variables, presented in Table 1, are based on studies examining the importance of building significance in heritage tourism.

Table 1: Research Variables

Variable	Indicator	Description	Source
Buildings Significance	Cultural Value	The ambiance of past times	Vardopoulos (2019); Nesticò & Somma (2019)
	Educational	Providing historical education experiences	Vodopivec et al. (2014); Timothy & Boyd (2006)
	Architectural Value	Having attractive building materials and colors	Pavlovskis et al. (2019); Liu et al. (2018); Chen et al. (2018); Turskis et al. (2017)
	Aesthetic Value	Having an attractive building facade	Gholitabar et al. (2018); Vodopivec et al. (2014)
		Having attractive details (such as doors, windows, etc.) and building decoration	Liu et al. (2018); Vodopivec et al. (2014)
	Authenticity	Having a fascinating architectural authenticity	Liu et al. (2018); Kutut et al. (2014)
	Historical Value	Having an encouraging history	Liu et al. (2018); Gholitabar et al. (2018)
	Accessibility	Having easy physical access	Doan & Nguyen (2023); Kutut et al. (2014)
		Having clear and easy-to-understand information	
		Having a multifunction that supports social activities	
	Community Value	Providing social benefits	Nesticò & Somma (2019); Pavlovskis et al. (2019)
		Providing economic benefits	Nesticò & Somma (2019); Vardopoulos (2019); Chen et al. (2018)
	Tourist Experience	Giving a visitor experience	Antariksa et al. (2024); Timothy & Boyd (2006)

The questionnaire contains various assertions, and respondents react based on the relevance of the building objects to the given statements (on a 7-point Likert scale ranging from strongly disagree to agree strongly). The collected data were examined using SPSS software with mean score, correlation, and regression analysis to establish the relevance of the relationship between the building's significance and the heritage tourism experience. The mean score was calculated using the formula shown below.

$$\bar{X} = \Sigma Xi/n$$

$\bar{X}$ = mean score of variables
 ΣXi = total score of variables
 n = number of samples

The average score is then split into seven categories using the following formula:

$$Interval_{length} = \frac{Max\ value - Min\ Value}{Category\ size}$$

The formula-based outcome refers to a frequency table in Table 2 for categorizing average scores.

Table 2: Mean Score Frequency

Category	Mean Score Range
Very unsuitable	1.000 – 1.857
Unsuitable	1.858 – 2.714
Quite unsuitable	2.715 – 3.571
Ordinary	3.572 – 4.428
Quite suitable	4.429 – 5.285
Suitable	5.286 – 6.142
Very suitable	6.143 – 7.000

This category was chosen to determine whether the variable values are suitable for assessing the relevance of the structures to the tourist experience in Kampung Heritage Kayutangan. Then, correlation analysis was conducted to examine relationships between variables, followed by multiple linear regression to evaluate the impact of building significance on the heritage tourism experience.

ANALYSIS AND DISCUSSION

The historical buildings in the Kampung Heritage Kayutangan have been chosen as the focus of this study. In Phase A, the data were calculated using the scoring differences when processing open-ended questionnaire data. This phase was given to 50 respondents directly. The scoring was done by assigning scores, starting with the first rank with the highest score (10 points) to the tenth rank with the lowest score (1 point). This produced the data as presented in Table 3.

Table 3: Score Ranking of Kampung Kayutangan's Historical Buildings

Name	Score										Total	Rank
	1	2	3	4	5	6	7	8	9	10		
1870 House	130*	99	80	35	18	10	4	12	2	0	390	1
Jengki House	130*	45	40	49	54	20	12	3	4	1	358	2
Mbah Ndut House	50	99	72	28	30	20	20	9	4	2	334	3
D'Penghulu House	70	54	56	56	24	10	12	12	12	3	309	4
Nyik Aisyah House	40	45	32	49	12	40	24	15	12	3	272	5
Rindu House	20	45	32	7	48	35	40	33	2	1	263	6
Gubuk Ningrat	50	18	32	35	42	30	24	12	6	8	257	7
Jacob House	10	27	24	56	24	40	32	15	14	2	244	8
Jamu House	0	18	24	14	30	35	28	30	26	2	207	9
Kartini House	0	0	8	21	18	10	4	9	18	28	116	10

*The highest score of the rank

Based on the Phase A findings, the top six buildings were chosen as samples for the Phase B assessment. The results for the sample objects used are the 1870 House, Jengki House, Mbah Ndut House, D'Pengkulu House, Nyik Aisyah House, and Rindu House. The research continued to the next phase, which involved giving 105 respondents (54 visitors and 51 residents). After completing the Phase B data collection, statistical analysis began with mean score analysis, correlation analysis, and regression analysis. The data passed prerequisite tests, proving that they are valid and reliable, meeting classical assumptions, and allowing for further study of regression analysis.

From all respondents, the authors looked for differences in residents' and visitors' preferences. This was done to determine whether the significant results obtained from each aspect are similar or only affect one of the two parties. This analysis was conducted using a mean score comparison of the historical building tourism significance according to visitors' preferences versus residents' preferences.

Table 4: Mean Score of Visitors' Preferences

No	Variable	Mean Score	Category	Graph
1	Cultural Value	5.77**	Suitable	
2	Educational	5.56	Suitable	
3	Architectural Value	5.69	Suitable	
4	Aesthetic Value	5.70	Suitable	
A	Visual Facade	5.71	Suitable	
B	Details & Decorations	5.69	Suitable	
5	Authenticity	5.68	Suitable	
6	Historical Value	5.51	Suitable	
7	Accessibility	5.47	Suitable	
A	Physical Access	5.51	Suitable	
B	Information Access	5.44*	Suitable	
C	Societal Access	5.47	Suitable	
8	Community Value	5.58	Suitable	
A	Social Value	5.57	Suitable	
B	Economic Value	5.59	Suitable	

* The Lowest Score
 ** The Highest Score

Based on Table 4, the results according to visitors' preferences show that the cultural value variable has the highest mean score with a score of 5.77, which falls into the "Suitable" category (5.286 – 6.142) for heritage tourism experiences. Cultural value shows visitors' appreciation for the buildings' significance. The societal access variable has the lowest average at 5.40, indicating visitors perceive cultural value more through buildings than local social activities. Social accessibility refers to the extent to which buildings facilitate connectivity with social activities, support community engagement, or promote interactions between visitors and existing social and cultural values (Doan & Nguyen, 2023).

Table 5: Mean Score of Residents' Preferences

No	Variable	Mean Score	Category	Graph
1	Cultural Value	5.57	Suitable	
2	Educational	5.40	Suitable	
3	Architectural Value	5.58**	Suitable	
4	Aesthetic Value	5.55	Suitable	
A	Visual Facade	5.58**	Suitable	
B	Details & Decorations	5.53	Suitable	
5	Authenticity	5.44	Suitable	
6	Historical Value	5.31*	Suitable	
7	Accessibility	5.38	Suitable	
A	Physical Access	5.35	Suitable	
B	Information Access	5.34	Suitable	
C	Societal Access	5.44	Suitable	
8	Community Value	5.50	Suitable	
A	Social Value	5.47	Suitable	
B	Economic Value	5.54	Suitable	

* The Lowest Score
 ** The Highest Score

In Table 5, the results according to the local community's preferences show that the highest mean score is found in the variables of architecture value and aesthetic value by visual facade, with the same score of 5.58. This indicates that most of the objects have materials with attractive building façades as the architectural value (Turskis et al., 2017). The historical value has the lowest score

because the residents are already accustomed to the historical value of the place where they live (Gholitabar et al., 2018).

Based on the information from the mean score analysis, the authors aimed to identify differences in respondent preferences. This was done to determine whether the significant results for each aspect were similar or only affected one of the two groups, whether they were visitors or residents. The study employed a correlation analysis to examine the significance of tourism in historical buildings, comparing visitors' preferences with those of residents.

Table 6: Correlation of Historical Buildings Significance Aspects

		Historical Buildings					
		1870 House	Jengki House	Mbah Ndut House	D'Penghulu House	Nyik Aisyah House	Rindu House
B y V i s i t o r s ,	Cultural Value	0.568	0.615	0.657*	0.405	0.596	0.64
	Educational	0.493	0.699	0.5	0.667*	0.632	0.657
	Architectural Value	0.531	0.651	0.518	0.544	0.745	0.387
	Aesthetic Value	Visual Facade	0.662	0.586	0.427	0.634	0.684
		Details & Decorations	0.748*	0.658	0.433	0.551	0.54
	Authenticity	0.477	0.591	0.528	0.546	0.628	0.692
	Historical Value	0.613	0.72*	0.592	0.579	0.804	0.748
	Accessibility	Physical Access	0.313	0.67	0.419	0.677	0.678
		Information Access	0.576	0.675	0.366	0.653	0.699
		Societal Access	0.565	0.56	0.531	0.489	0.726
	Community Value	Social Value	0.47	0.497	0.638	0.633	0.694
		Economic Value	0.535	0.591	0.412	0.653	0.814*
	Cultural Value	0.753	0.501	0.671	0.469	0.632	0.651
	Educational	0.74	0.545	0.693	0.624	0.649	0.691
	Architectural Value	0.676	0.639	0.663	0.648	0.713	0.672
R e s i d e n t s ,	Aesthetic Value	Visual Facade	0.812	0.722	0.74*	0.736*	0.687
		Details & Decorations	0.836*	0.822*	0.667	0.605	0.573
	Authenticity	0.586	0.664	0.609	0.512	0.644	0.669
	Historical Value	0.75	0.708	0.686	0.536	0.695	0.74
	Accessibility	Physical Access	0.678	0.348	0.575	0.446	0.705
		Information Access	0.591	0.603	0.617	0.57	0.794
		Societal Access	0.66	0.696	0.659	0.571	0.798*
	Community Value	Social Value	0.57	0.588	0.537	0.468	0.637
		Economic Value	0.583	0.64	0.511	0.61	0.731
			0.646				

*The highest correlation coefficients indicate the most correlated variable

Historical building tourism holds immense significance as it bridges the past and present, offering enriching experiences shaped by various interconnected factors, as shown in Table 6. For visitors, these experiences are deeply tied to the economic value generated by historical tourism as they promote financial benefits through activities such as guided tours, cultural events, and local craft markets. The economic impact not only supports the preservation of historical structures but also fosters community development by creating job opportunities and stimulating local economies (Nesticò & Somma, 2019).

For residents, historical building tourism presents a delicate balance between preserving cultural heritage and accommodating modern needs. This balance enhances tourism's sustainability while ensuring that historic sites' cultural integrity remains intact. Furthermore, the intricate details, artistic decorations, and visual appeal of historic architecture play a crucial role in defining a region's identity and charm, reflecting the community's pride and dedication to maintaining its cultural legacy. These elements make historic buildings not just static monuments but dynamic hubs of cultural interaction and education (Timothy & Boyd, 2006).

The existence of historical building tourism has significant effects on both visitors and the residents, shaping cultural, social, and economic dynamics. As highlighted by Vardopoulos (2019), community involvement plays a pivotal role in sustainable heritage tourism by fostering social cohesion and delivering economic benefits through locally driven activities and services. Moreover, Liu et al. (2018) emphasize the aesthetic architectural value of historical buildings, characterized by their visually striking facades, intricate details, and elaborate decorations, which enhance the overall visitor experience. This result will be further examined by investigating the significance of historical buildings on the tourist experience through regression analysis.

Table 7: Regression Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.841 ^a	.708	.702	.756

a. Predictors: (Constant), Community Value - Economic Value, Cultural Value, Accessibility - Physical Access, Authenticity, Accessibility - Information Access, Architectural Value, Accessibility - Societal Access, Aesthetic Value - Details & Decorations, Historical Value, Community Value - Social Value, Educational, Aesthetic Value - Visual Facade

According to the regression analysis using the model summary in Table 7, historical buildings are 70.8% significant overall in the visitor experience. Thus, other impactful aspects that have yet to be fully realized must be enhanced to achieve sustainable tourism. This regression continues to the F-test, which is derived from the regression model summary to show the explained and unexplained variance from the model. The regression model summary quantifies

the model's performance, while the F-test ANOVA confirms that the model is statistically valid.

Table 8: Regression Analysis of Variance

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	856.128	12	71.344	124.672	<0,001 ^b
	Residual	353.080	617	.572		
	Total	1209.208	629			

a. Dependent Variable: Tourist Experience

b. Predictors: (Constant), Community Value - Economic, Cultural Value, Accessibility - Physical Access, Authenticity, Accessibility - Information Access, Architectural Value - Details & Decorations, Historical Value, Community Value - Social, Educational, Aesthetic Value - Visual Facade

In Table 8, the calculated F-value obtained is greater than the table F-value ($124.672 > 1.983$), so it can be said that the overall significance variables of historical buildings, namely community value, cultural value, authenticity, architectural value, accessibility, historical value, educational value, and aesthetic value, together have a significant influence on the tourism experience variable. The results of the analysis indicate that out of the twelve tested variables in Table 9, four have the most significant effect on tourist experience: community value (social and economic), historical value, aesthetic value (visual facade, details, and decorations), and accessibility (physical, information, and societal access).

Table 9: The Significance Coefficients of Historical Building Aspects

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	.137	.154		.890	.374
Cultural Value	.011	.045	.010	.242	.809
Educational	.006	.052	.006	.120	.904
Architectural Value	.001	.049	.001	.030	.976
Aesthetic Value - Visual Facade	.169	.057	.163	2.989	.003
Aesthetic Value - Details & Decorations	.102	.051	.101	2.005	.045
Authenticity	-.046	.044	-.043	-1.051	.293
Historical Value	.259	.047	.249	5.498	.000
Accessibility - Physical Access	.073	.036	.072	2.045	.041
Accessibility - Information Access	.060	.036	.059	1.648	.100
Accessibility - Societal Access	.103	.045	.099	2.269	.024
Community Value - Social Value	.064	.048	.062	1.330	.184
Community Value - Economic Value	.197	.047	.194	4.209	.000

a. Dependent Variable: Tourist Experience

The regression analysis reveals that historical value has the most significant positive impact on the tourist experience among the evaluated variables, with a standardized coefficient (Beta) of 0.249 and a p-value of 0.000, indicating its critical role in shaping visitors' and residents' preferences. Similarly, aesthetic value by the visual facade (Beta = 0.163, p = 0.003) and community value in economic value (Beta = 0.194, p = 0.000) are also notable contributors, emphasizing the importance of visual appeal and economic benefits in enhancing tourist satisfaction. The aesthetic architectural value, encompassing visual facades, intricate details, and decorations, significantly contributes to the overall tourist experience, as noted by Liu et al. (2018). Research by Vardopoulos (2019) also emphasized that community engagement is fundamental to sustainable heritage tourism, fostering economic benefits.

Nevertheless, variables such as cultural value, educational value, architectural value, authenticity, and community value within social value were not found to exert a statistically significant influence. These findings highlight the importance of considering historical significance, aesthetic features, and economic contributions in the development or preservation of historical buildings to optimize their appeal to visitors. Moreover, cultural, educational, and social values might require a more extended period to manifest their influence, and therefore, they might not be immediately detectable in cross-sectional studies. Research by Kutut et al. (2014) suggests that intangible factors such as authenticity and social value often have long-term effects.

The findings from the regression analysis emphasize the crucial influence of historical, aesthetic, and economic values in shaping the tourist experience, demonstrating substantial and statistically significant impacts. These factors influence visitors' experiences at heritage sites by emphasizing cultural authenticity and visual appeal, thereby cultivating meaningful experiences. The emphasis on visual aesthetics is notable as visitors prefer well-maintained environments. Additionally, the economic value associated with historical tourism, such as increased local business, reinforces the necessity of sustained preservation efforts (Ariffin et al., 2023). The results underscore the importance of strategic initiatives aimed at preserving the physical integrity of heritage sites and enhancing their social and economic significance.

CONCLUSION

Urban growth has influenced the development of Kampung Heritage Kayutangan, leading to changes in its buildings. Research on the significance of historical buildings for tourism shows that historical value, aesthetic value of the visual facade, and community value in economic aspects are the most prominent aspects experienced by visitors and residents. In contrast, authenticity is least perceived concerning heritage tourism in Kampung Heritage Kayutangan.

The differences between visitors' and residents' preferences highlight the contrasting preferences shaped by their experiences and relationships with the heritage site. Visitors tend to place the highest value on cultural significance, indicating that they appreciate the historical and cultural importance of the buildings during their tourism experience. Residents tend to exhibit a low appreciation for the historical significance, likely due to their familiarity with the historical elements of their environment, which may not evoke the same sense of novelty or emotional resonance as it does for visitors. These findings emphasize that while visitors seek heritage sites' cultural and historical aspects, residents place greater importance on architectural appeal and may perceive historical value as a more familiar, less remarkable aspect of their daily environment.

These factors create a mutually reinforcing cycle that supports heritage tourism, benefiting both visitors and residents. Thus, enhancing other impactful aspects that have not yet fully materialized is necessary to achieve sustainable tourism by integrating these aspects from the perspectives of both visitors and residents. The community can protect historical sites while providing educational value for visitors and fostering economic growth. Such an approach allows the cultural heritage to be appreciated and maintained for future generations while benefiting the local community.

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ETHICAL STATEMENT

The authors state that they have no conflicts of interest related to the publication of the paper. This study was conducted in accordance with academic research ethics. Participation was voluntary, informed consent was obtained, and confidentiality was maintained.

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